

then to endure the dark nights of the soul that inevitably occur on the road to recovery.

CHAPTER 9

WHAT'S LOVE GOT TO DO WITH IT?

Initiation, intimidation, stigmatization, isolation, helplessness and self-blame depend on a terrifying reality of child sexual abuse. . . . “Don’t worry about things like that; that could never happen in our family.” “How could you ever think of such a terrible thing?” “Don’t let me ever hear you say anything like that again!” The average child never asks and never tells.

—Roland Summit *The Child Sexual Abuse Accommodation Syndrome*

How do we organize our thinking with regard to individuals like Marilyn, Mary, and Kathy, and what can we do to help them? The way we define their problems, our diagnosis, will determine how we approach their care. Such patients typically receive five or six different unrelated diagnoses in the course of their psychiatric treatment. If their doctors focus on their mood swings, they will be identified as bipolar and prescribed lithium or valproate. If the professionals are most impressed with their despair, they will be told they are suffering from major depression and given antidepressants. If the doctors focus on their restlessness and lack of attention, they may be categorized as ADHD and treated with Ritalin or other stimulants. And if the clinic staff happens to take a trauma history, and the patient actually volunteers the relevant information, he or she might receive the diagnosis of PTSD. None of these diagnoses will be completely off the mark, and none of them will begin to meaningfully describe who these patients are and what they suffer from.

Psychiatry, as a subspecialty of medicine, aspires to define mental illness as precisely as, let’s say, cancer of the pancreas, or streptococcal infection of the lungs. However, given the complexity of mind, brain, and human attachment systems, we have not come even close to achieving that sort of precision. Understanding what is “wrong” with people currently is more a question of the mind-set of the practitioner (and of what insurance companies will pay for) than of verifiable, objective facts.

The first serious attempt to create a systematic manual of psychiatric diagnoses occurred in 1980, with the release of the third edition of the *Diagnostic and Statistical Manual of Mental Disorders*, the official list of all mental diseases recognized by the American Psychiatric Association (APA). The preamble to the DSM-III warned explicitly that its categories were

insufficiently precise to be used in forensic settings or for insurance purposes. Nonetheless it gradually became an instrument of enormous power: Insurance companies require a DSM diagnosis for reimbursement, until recently all research funding was based on DSM diagnoses, and academic programs are organized around DSM categories. DSM labels quickly found their way into the larger culture as well. Millions of people know that Tony Soprano suffered from panic attacks and depression and that Carrie Mathison of *Homeland* struggles with bipolar disorder. The manual has become a virtual industry that has earned the American Psychiatric Association well over \$100 million.¹ The question is: Has it provided comparable benefits for the patients it is meant to serve?

A psychiatric diagnosis has serious consequences: Diagnosis informs treatment, and getting the wrong treatment can have disastrous effects. Also, a diagnostic label is likely to attach to people for the rest of their lives and have a profound influence on how they define themselves. I have met countless patients who told me that they “are” bipolar or borderline or that they “have” PTSD, as if they had been sentenced to remain in an underground dungeon for the rest of their lives, like the Count of Monte Cristo.

None of these diagnoses takes into account the unusual talents that many of our patients develop or the creative energies they have mustered to survive. All too often diagnoses are mere tallies of symptoms, leaving patients such as Marilyn, Kathy, and Mary likely to be viewed as out-of-control women who need to be straightened out.

The dictionary defines diagnosis as “a. The act or process of identifying or determining the nature and cause of a disease or injury through evaluation of patient history, examination, and review of laboratory data. b. The opinion derived from such an evaluation.”² In this chapter, and the next, I will discuss the chasm between official diagnoses and what our patients actually suffer from and discuss how my colleagues and I have tried to change the way patients with chronic trauma histories are diagnosed.

HOW DO YOU TAKE A TRAUMA HISTORY?

In 1985 I started to collaborate with psychiatrist Judith Herman, whose first book, *Father-Daughter Incest*, had recently been published. We were both working at Cambridge Hospital (one of Harvard’s teaching hospitals) and, sharing an interest in how trauma had affected the lives of our patients, we began to meet regularly and compare notes. We were struck by how many of our patients who were diagnosed with borderline personality disorder (BPD) told us horror stories about their childhoods. BPD is marked by clinging but highly unstable relationships, extreme mood swings, and self-destructive behavior, including self-mutilation and repeated suicide attempts. In order to uncover whether there was, in fact, a relationship between childhood trauma and BPD, we designed a formal scientific study and sent off a grant proposal to the National Institutes of Health. It was rejected.

Undeterred, Judy and I decided to finance the study ourselves, and we found an ally in Chris Perry, the director of research at Cambridge Hospital, who was funded by the National Institute of Mental Health to study BPD and other near neighbor diagnoses, so-called personality disorders, in patients recruited from the Cambridge Hospital. He had collected volumes of valuable data on these subjects but had never inquired about childhood abuse and neglect. Even though he did not hide his skepticism about our proposal, he was very generous to us and

arranged for us to interview fifty-five patients from the hospital's outpatient department, and he agreed to compare our findings with records in the large database he had already collected.

The first question Judy and I faced was: How do you take a trauma history? You can't ask a patient point-blank: "Were you molested as a kid?" or "Did your father beat you up?" How many would trust a complete stranger with such delicate information? Keeping in mind that people universally feel ashamed about the traumas they have experienced, we designed an interview instrument, the Traumatic Antecedents Questionnaire (TAQ).³ The interview started with a series of simple questions: "Where do you live, and who do you live with?"; "Who pays the bills and who does the cooking and cleaning?" It progressed gradually to more revealing questions: "Who do you rely on in your daily life?" As in: When you're sick, who does the shopping or takes you to the doctor? "Who do you talk to when you are upset?" In other words, who provides you with emotional and practical support? Some patients gave us surprising answers: "my dog" or "my therapist"—or "nobody."

We then asked similar questions about their childhood: Who lived in the household? How often did you move? Who was your primary caretaker? Many of the patients reported frequent relocations that required them to change schools in the middle of the year. Several had primary caregivers who had gone to jail, been placed in a mental hospital, or joined the military. Others had moved from foster home to foster home or had lived with a string of different relatives.

The next section of the questionnaire addressed childhood relationships: "Who in your family was affectionate to you?" "Who treated you as a special person?" This was followed by a critical question—one that, to my knowledge, had never before been asked in a scientific study: "Was there anybody who you felt safe with growing up?" One out of four patients we interviewed could not recall anyone they had felt safe with as a child. We checked "nobody" on our work sheets and did not comment, but we were stunned. Imagine being a child and not having a source of safety, making your way into the world unprotected and unseen.

The questions continued: "Who made the rules at home and enforced the discipline?" "How were kids kept in line—by talking, scolding, spanking, hitting, locking you up?" "How did your parents solve their disagreements?" By then the floodgates had usually opened, and many patients were volunteering detailed information about their childhoods. One woman had witnessed her little sister being raped; another told us she'd had her first sexual experience at age eight—with her grandfather. Men and women reported lying awake at night listening to furniture crashing and parents screaming; a young man had come down to the kitchen and found his mother lying in a pool of blood. Others talked about not being picked up at elementary school or coming home to find an empty house and spending the night alone. One woman who made her living as a cook had learned to prepare meals for her family after her mother was jailed on a drug conviction. Another had been nine when she grabbed and steadied the car's steering wheel because her drunken mother was swerving down a four-lane highway during rush hour.

Our patients did not have the option to run away or escape; they had nobody to turn to and no place to hide. Yet they somehow had to manage their terror and despair. They probably went to school the next morning and tried to pretend that everything was fine. Judy and I realized that the BPD group's problems—dissociation, desperate clinging to whoever might be enlisted to help—had probably started off as ways of dealing with overwhelming emotions and inescapable brutality.

After our interviews Judy and I met to code our patients' answers—that is, to translate them

into numbers for computer analysis, and Chris Perry then collated them with the extensive information on these patients he had stored on Harvard's mainframe computer. One Saturday morning in April he left us a message asking us to come to his office. There we found a huge stack of printouts, on top of which Chris had placed a Gary Larson cartoon of a group of scientists studying dolphins and being puzzled by "those strange 'aw blah es span yol' sounds." The data had convinced him that unless you understand the language of trauma and abuse, you cannot really understand BPD.

As we later reported in the *American Journal of Psychiatry*, 81 percent of the patients diagnosed with BPD at Cambridge Hospital reported severe histories of child abuse and/or neglect; in the vast majority the abuse began before age seven.⁴ This finding was particularly important because it suggested that the impact of abuse depends, at least in part, on the age at which it begins. Later research by Martin Teicher at McLean Hospital showed that different forms of abuse have different impacts on various brain areas at different stages of development.⁵ Although numerous studies have since replicated our findings,⁶ I still regularly get scientific papers to review that say things like "It has been hypothesized that borderline patients may have histories of childhood trauma." When does a hypothesis become a scientifically established fact?

Our study clearly supported the conclusions of John Bowlby.

When children feel pervasively angry or guilty or are chronically frightened about being abandoned, they have come by such feelings honestly; that is because of experience. When, for example, children fear abandonment, it is not in counterreaction to their intrinsic homicidal urges; rather, it is more likely because they have been abandoned physically or psychologically, or have been repeatedly threatened with abandonment. When children are pervasively filled with rage, it is due to rejection or harsh treatment. When children experience intense inner conflict regarding their angry feelings, this is likely because expressing them may be forbidden or even dangerous.

Bowlby noticed that when children must disown powerful experiences they have had, this creates serious problems, including "chronic distrust of other people, inhibition of curiosity, distrust of their own senses, and the tendency to find everything unreal."⁷ As we will see, this has important implications for treatment.

Our study expanded our thinking beyond the impact of particular horrendous events, the focus of the PTSD diagnosis, to look at the long-term effects of brutalization and neglect in caregiving relationships. It also raised another critical question: What therapies are effective for people with a history of abuse, particularly those who feel chronically suicidal and deliberately hurt themselves?

SELF-HARM

During my training I was called from my bed at around 3:00 a.m. three nights in a row to stitch up a woman who had slashed her neck with whatever sharp object she could lay her hands on. She told me, somewhat triumphantly, that cutting herself made her feel much better. Ever since then I'd asked myself why. Why do some people deal with being upset by playing three sets of tennis or drinking a stiff martini, while others carve their arms with razor blades? Our study

showed that having a history of childhood sexual and physical abuse was a strong predictor of repeated suicide attempts and self-cutting.⁸ I wondered if their suicidal ruminations had started when they were very young and whether they had found comfort in plotting their escape by hoping to die or doing damage to themselves. Does inflicting harm on oneself begin as a desperate attempt to gain some sense of control?

Chris Perry's database had follow-up information on all the patients who were treated in the hospital's outpatient clinics, including reports on suicidality and self-destructive behavior. After three years of therapy approximately two-thirds of the patients had markedly improved. Now the question was, which members of the group had benefited from therapy and which had continued to feel suicidal and self-destructive? Comparing the patients' ongoing behavior with our TAQ interviews provided some answers. The patients who remained self-destructive had told us that they did not remember feeling safe with anybody as a child; they had reported being abandoned, shuttled from place to place, and generally left to their own devices.

I concluded that, if you carry a memory of having felt safe with somebody long ago, the traces of that earlier affection can be reactivated in attuned relationships when you are an adult, whether these occur in daily life or in good therapy. However, if you lack a deep memory of feeling loved and safe, the receptors in the brain that respond to human kindness may simply fail to develop.⁹ If that is the case, how can people learn to calm themselves down and feel grounded in their bodies? Again, this has important implications for therapy, and I'll return to this question throughout part 5, on treatment.

THE POWER OF DIAGNOSIS

Our study also confirmed that there was a traumatized population quite distinct from the combat soldiers and accident victims for whom the PTSD diagnosis had been created. People like Marilyn and Kathy, as well as the patients Judy and I had studied, and the kids in the outpatient clinic at MMHC that I described in chapter 7, do not necessarily remember their traumas (one of the criteria for the PTSD diagnosis) or at least are not preoccupied with specific memories of their abuse, but they continue to behave as if they were still in danger. They go from one extreme to the other; they have trouble staying on task, and they continually lash out against themselves and others. To some degree their problems do overlap with those of combat soldiers, but they are also very different in that their childhood trauma has prevented them from developing some of the mental capacities that adult soldiers possessed before their traumas occurred.

After we realized this, a group of us¹⁰ went to see Robert Spitzer, who, after having guided the development of the *DSM-III*, was in the process of revising the manual. He listened carefully to what we told him. He told us it was likely that clinicians who spend their days treating a particular patient population are likely to develop considerable expertise in understanding what ails them. He suggested that we do a study, a so-called field trial, to compare the problems of different groups of traumatized individuals.¹¹ Spitzer put me in charge of the project. First we developed a rating scale that incorporated all the different trauma symptoms that had been reported in the scientific literature, then we interviewed 525 adult patients at five sites around the country to see if particular populations suffered from different constellations of problems. Our populations fell into three groups: those with histories of childhood physical or sexual abuse by caregivers; recent victims of domestic violence; and people who had recently been through a

natural disaster.

There were clear differences among these groups, particularly those on the extreme ends of the spectrum: victims of child abuse and adults who had survived natural disasters. The adults who had been abused as children often had trouble concentrating, complained of always being on edge, and were filled with self-loathing. They had enormous trouble negotiating intimate relationships, often veering from indiscriminate, high-risk, and unsatisfying sexual involvements to total sexual shutdown. They also had large gaps in their memories, often engaged in self-destructive behaviors, and had a host of medical problems. These symptoms were relatively rare in the survivors of natural disasters.

Each major diagnosis in the DSM had a workgroup responsible for suggesting revisions for the new edition. I presented the results of the field trial to our *DSM-IV* PTSD work group, and we voted nineteen to two to create a new trauma diagnosis for victims of interpersonal trauma: “Disorders of Extreme Stress, Not Otherwise Specified” (DESNOS), or “Complex PTSD” for short.^{12,13} We then eagerly anticipated the publication of the *DSM-IV* in May 1994. But much to our surprise the diagnosis that our work group had overwhelmingly approved did not appear in the final product. None of us had been consulted.

This was a tragic exclusion. It meant that large numbers of patients could not be accurately diagnosed and that clinicians and researchers would be unable to scientifically develop appropriate treatments for them. You cannot develop a treatment for a condition that does not exist. Not having a diagnosis now confronts therapists with a serious dilemma: How do we treat people who are coping with the fall-out of abuse, betrayal and abandonment when we are forced to diagnose them with depression, panic disorder, bipolar illness, or borderline personality, which do not really address what they are coping with?

The consequences of caretaker abuse and neglect are vastly more common and complex than the impact of hurricanes or motor vehicle accidents. Yet the decision makers who determined the shape of our diagnostic system decided not to recognize this evidence. To this day, after twenty years and four subsequent revisions, the DSM and the entire system based on it fail victims of child abuse and neglect—just as they ignored the plight of veterans before PTSD was introduced back in 1980.

THE HIDDEN EPIDEMIC

How do you turn a newborn baby with all its promise and infinite capacities into a thirty-year-old homeless drunk? As with so many great discoveries, internist Vincent Felitti came across the answer to this question accidentally.

In 1985 Felitti was chief of Kaiser Permanente’s Department of Preventive Medicine in San Diego, which at the time was the largest medical screening program in the world. He was also running an obesity clinic that used a technique called “supplemented absolute fasting” to bring about dramatic weight loss without surgery. One day a twenty-eight-year-old nurse’s aide showed up in his office. Felitti accepted her claim that obesity was her principal problem and enrolled her in the program. Over the next fifty-one weeks her weight dropped from 408 pounds to 132 pounds.

However, when Felitti next saw her a few months later, she had regained more weight than he thought was biologically possible in such a short time. What had happened? It turned out that

her newly svelte body had attracted a male coworker, who started to flirt with her and then suggested sex. She went home and began to eat. She stuffed herself during the day and ate while sleepwalking at night. When Felitti probed this extreme reaction, she revealed a lengthy incest history with her grandfather.

This was only the second case of incest Felitti had encountered in his twenty-three-year medical practice, and yet about ten days later he heard a similar story. As he and his team started to inquire more closely, they were shocked to discover that most of their morbidly obese patients had been sexually abused as children. They also uncovered a host of other family problems.

In 1990 Felitti went to Atlanta to present data from the team's first 286 patient interviews at a meeting of the North American Association for the Study of Obesity. He was stunned by the harsh response of some experts: Why did he believe such patients? Didn't he realize they would fabricate any explanation for their failed lives? However, an epidemiologist from the Centers for Disease Control and Prevention (CDC) encouraged Felitti to start a much larger study, drawing on a general population, and invited him to meet with a small group of researchers at the CDC. The result was the monumental investigation of Adverse Childhood Experiences (now known as the ACE study), a collaboration between the CDC and Kaiser Permanente, with Robert Anda, MD, and Vincent Felitti, MD, as co-principal investigators.

More than fifty thousand Kaiser patients came through the Department of Preventive Medicine annually for a comprehensive evaluation, filling out an extensive medical questionnaire in the process. Felitti and Anda spent more than a year developing ten new questions¹⁴ covering carefully defined categories of adverse childhood experiences, including physical and sexual abuse, physical and emotional neglect, and family dysfunction, such as having had parents who were divorced, mentally ill, addicted, or in prison. They then asked 25,000 consecutive patients if they would be willing to provide information about childhood events; 17,421 said yes. Their responses were then compared with the detailed medical records that Kaiser kept on all patients.

The ACE study revealed that traumatic life experiences during childhood and adolescence are far more common than expected. The study respondents were mostly white, middle class, middle aged, well educated, and financially secure enough to have good medical insurance, and yet only one-third of the respondents reported no adverse childhood experiences.

- One out of ten individuals responded yes to the question "Did a parent or other adult in the household often or very often swear at you, insult you, or put you down?"
- More than a quarter responded yes to the questions "Did one of your parents often or very often push, grab, slap, or throw something at you?" and "Did one of your parents often or very often hit you so hard that you had marks or were injured?" In other words, more than a quarter of the U.S. population is likely to have been repeatedly physically abused as a child.
- To the questions "Did an adult or person at least 5 years older ever have you touch their body in a sexual way?" and "Did an adult or person at least 5 years older ever attempt oral, anal, or vaginal intercourse with you?" 28 percent of women and 16 percent of men responded affirmatively.
- One in eight people responded positively to the questions: "As a child, did you witness your mother sometimes, often, or very often pushed, grabbed, slapped, or had

something thrown at her?” “As a child, did you witness your mother sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?”¹⁵

Each yes answer was scored as one point, leading to a possible ACE score ranging from zero to ten. For example, a person who experienced frequent verbal abuse, who had an alcoholic mother, and whose parents divorced would have an ACE score of three. Of the two-thirds of respondents who reported an adverse experience, 87 percent scored two or more. One in six of all respondents had an ACE score of four or higher.

In short, Felitti and his team had found that adverse experiences are interrelated, even though they're usually studied separately. People typically don't grow up in a household where one brother is in prison but everything else is fine. They don't live in families where their mother is regularly beaten but life is otherwise hunky-dory. Incidents of abuse are never stand-alone events. And for each additional adverse experience reported, the toll in later damage increases.

Felitti and his team found that the effects of childhood trauma first become evident in school. More than half of those with ACE scores of four or higher reported having learning or behavioral problems, compared with 3 percent of those with a score of zero. As the children matured, they didn't "outgrow" the effects of their early experiences. As Felitti notes, "Traumatic experiences are often lost in time and concealed by shame, secrecy, and social taboo," but the study revealed that the impact of trauma pervaded these patients' adult lives. For example, high ACE scores turned out to correlate with higher workplace absenteeism, financial problems, and lower lifetime income.

When it came to personal suffering, the results were devastating. As the ACE score rises, chronic depression in adulthood also rises dramatically. For those with an ACE score of four or more, its prevalence is 66 percent in women and 35 percent in men, compared with an overall rate of 12 percent in those with an ACE score of zero. The likelihood of being on antidepressant medication or prescription painkillers also rose proportionally. As Felitti has pointed out, we may be treating today experiences that happened fifty years ago—at ever-increasing cost. Antidepressant drugs and painkillers constitute a significant portion of our rapidly rising national health-care expenditures.¹⁶ (Ironically, research has shown that depressed patients without prior histories of abuse or neglect tend to respond much better to antidepressants than patients with those backgrounds.¹⁷)

Self-acknowledged suicide attempts rise exponentially with ACE scores. From a score of zero to a score of six there is about a 5,000 percent increased likelihood of suicide attempts. The more isolated and unprotected a person feels, the more death will feel like the only escape. When the media report an environmental link to a 30 percent increase in the risk of some cancer, it is headline news, yet these far more dramatic figures are overlooked.

As part of their initial medical evaluation, study participants were asked, "Have you ever considered yourself to be an alcoholic?" People with an ACE score of four were seven times more likely to be alcoholic than adults with a score of zero. Injection drug use increased exponentially: For those with an ACE score of six or more, the likelihood of IV drug use was 4,600 percent greater than in those with a score of zero.

Women in the study were asked about rape during adulthood. At an ACE score of zero, the prevalence of rape was 5 percent; at a score of four or more it was 33 percent. Why are abused or neglected girls so much more likely to be raped later in life? The answers to this question have

implications far beyond rape. For example, numerous studies have shown that girls who witness domestic violence while growing up are at much higher risk of ending up in violent relationships themselves, while for boys who witness domestic violence, the risk that they will abuse their own partners rises sevenfold.¹⁸ More than 12 percent of study participants had seen their mothers being battered.

The list of high-risk behaviors predicted by the ACE score included smoking, obesity, unintended pregnancies, multiple sexual partners, and sexually transmitted diseases. Finally, the toll of major health problems was striking: Those with an ACE score of six or above had a 15 percent or greater chance than those with an ACE score of zero of currently suffering from any of the ten leading causes of death in the United States, including chronic obstructive pulmonary disease (COPD), ischemic heart disease, and liver disease. They were twice as likely to suffer from cancer and four times as likely to have emphysema. The ongoing stress on the body keeps taking its toll.

WHEN PROBLEMS ARE REALLY SOLUTIONS

Twelve years after he originally treated her, Felitti again saw the woman whose dramatic weight loss and gain had started him on his quest. She told him that she'd subsequently had bariatric surgery but that after she'd lost ninety-six pounds she'd become suicidal. It had taken five psychiatric hospitalizations and three courses of electroshock to control her suicidality. Felitti points out that obesity, which is considered a major public health problem, may in fact be a personal solution for many. Consider the implications: If you mistake someone's solution for a problem to be eliminated, not only are they likely to fail treatment, as often happens in addiction programs, but other problems may emerge.

One female rape victim told Felitti, "Overweight is overlooked, and that's the way I need to be."¹⁹ Weight can protect men, as well. Felitti recalls two guards at a state prison in his obesity program. They promptly regained the weight they had lost, because they felt a lot safer being the biggest guy on the cellblock. Another male patient became obese after his parents divorced and he moved in with his violent alcoholic grandfather. He explained: "It wasn't that I ate because I was hungry and all of that. It was just a place for me to feel safe. All the way from kindergarten I used to get beat up all the time. When I got the weight on it didn't happen anymore."

The ACE study group concluded: "Although widely understood to be harmful to health, each adaptation [such as smoking, drinking, drugs, obesity] is notably difficult to give up. Little consideration is given to the possibility that many long-term health risks might also be personally beneficial in the short term. We repeatedly hear from patients of the benefits of these 'health risks.' The idea of the problem being a solution, while understandably disturbing to many, is certainly in keeping with the fact that opposing forces routinely coexist in biological systems. . . . What one sees, the presenting problem, is often only the marker for the real problem, which lies buried in time, concealed by patient shame, secrecy and sometimes amnesia—and frequently clinician discomfort."

CHILD ABUSE: OUR NATION'S LARGEST PUBLIC HEALTH PROBLEM

The first time I heard Robert Anda present the results of the ACE study, he could not hold back

his tears. In his career at the CDC he had previously worked in several major risk areas, including tobacco research and cardiovascular health. But when the ACE study data started to appear on his computer screen, he realized that they had stumbled upon the gravest and most costly public health issue in the United States: child abuse. He had calculated that its overall costs exceeded those of cancer or heart disease and that eradicating child abuse in America would reduce the overall rate of depression by more than half, alcoholism by two-thirds, and suicide, IV drug use, and domestic violence by three-quarters.²⁰ It would also have a dramatic effect on workplace performance and vastly decrease the need for incarceration.

When the surgeon general's report on smoking and health was published in 1964, it unleashed a decades-long legal and medical campaign that has changed daily life and long-term health prospects for millions. The number of American smokers fell from 42 percent of adults in 1965 to 19 percent in 2010, and it is estimated that nearly 800,000 deaths from lung cancer were prevented between 1975 and 2000.²¹

The ACE study, however, has had no such effect. Follow-up studies and papers are still appearing around the world, but the day-to-day reality of children like Marilyn and the children in outpatient clinics and residential treatment centers around the country remains virtually the same. Only now they receive high doses of psychotropic agents, which makes them more tractable but which also impairs their ability to feel pleasure and curiosity, to grow and develop emotionally and intellectually, and to become contributing members of society.

CHAPTER 10

DEVELOPMENTAL TRAUMA: THE HIDDEN EPIDEMIC

The notion that early childhood adverse experiences lead to substantial developmental disruptions is more clinical intuition than a research-based fact. There is no known evidence of developmental disruptions that were preceded in time in a causal fashion by any type of trauma syndrome.

—From the American Psychiatric Association’s rejection of a Developmental Trauma Disorder diagnosis, May 2011

Research on the effects of early maltreatment tells a different story: that early maltreatment has enduring negative effects on brain development. Our brains are sculpted by our early experiences. Maltreatment is a chisel that shapes a brain to contend with strife, but at the cost of deep, enduring wounds. Childhood abuse isn’t something you “get over.” It is an evil that we must acknowledge and confront if we aim to do anything about the unchecked cycle of violence in this country.

—Martin Teicher, MD, PhD, *Scientific American*

There are hundreds of thousands of children like the ones I am about to describe, and they absorb enormous resources, often without appreciable benefit. They end up filling our jails, our welfare rolls, and our medical clinics. Most of the public knows them only as statistics. Tens of thousands of schoolteachers, probation officers, welfare workers, judges, and mental health professionals spend their days trying to help them, and the taxpayer pays the bills.

Anthony was only two and a half when he was referred to our Trauma Center by a child-care center because its employees could not manage his constant biting and pushing, his refusal to take naps, and his intractable crying, head banging, and rocking. He did not feel safe with any staff member and fluctuated between despondent collapse and angry defiance.

When we met with him and his mother, he anxiously clung to her, hiding his face, while she kept saying, “Don’t be such a baby.” He startled when a door banged somewhere down the corridor and then burrowed deeper into his mom’s lap. When she pushed him away, he sat in a corner and started to bang his head. “He just does that to bug me,” his mother remarked. When

we asked about her own background, she told us that she'd been abandoned by her parents and raised by a series of relatives who hit her, ignored her, and started to sexually abuse her at age thirteen. She'd become pregnant by a drunken boyfriend who left her when she told him she was carrying his child. Anthony was just like his father, she said—a good-for-nothing. She had had numerous violent rows with subsequent boyfriends, but she was sure that this had happened too late at night for Anthony to notice.

If Anthony were admitted to a hospital, he would likely be diagnosed with a host of different psychiatric disorders: depression, oppositional defiant disorder, anxiety, reactive attachment disorder, ADHD, and PTSD. None of these diagnoses, however, would clarify what was wrong with Anthony: that he was scared to death and fighting for his life, and he did not trust that his mother could help him.

Then there's Maria, a fifteen-year-old Latina, one of the more than half a million kids in the United States who grow up in foster care and residential treatment programs. Maria is obese and aggressive. She has a history of sexual, physical, and emotional abuse and has lived in more than twenty out-of-home placements since age eight. The pile of medical charts that arrived with her described her as mute, vengeful, impulsive, reckless, and self-harming, with extreme mood swings and an explosive temper. She describes herself as “garbage, worthless, rejected.”

After multiple suicide attempts Maria was placed in one of our residential treatment centers. Initially she was mute and withdrawn and became violent when people got too close to her. After other approaches failed to work, she was placed in an equine therapy program where she groomed her horse daily and learned simple dressage. Two years later I spoke with Maria at her high school graduation. She had been accepted by a four-year college. When I asked her what had helped her most, she answered, “The horse I took care of.” She told me that she first started to feel safe with her horse; he was there every day, patiently waiting for her, seemingly glad upon her approach. She started to feel a visceral connection with another creature and began to talk to him like a friend. Gradually she started talking with the other kids in the program and, eventually, with her counselor.

Virginia is a thirteen-year-old adopted white girl. She was taken away from her biological mother because of the mother's drug abuse; after her first adoptive mother fell ill and died, she moved from foster home to foster home before being adopted again. Virginia was seductive with any male who crossed her path, and she reported sexual and physical abuse by various babysitters and temporary caregivers. She came to our residential treatment program after thirteen crisis hospitalizations for suicide attempts. The staff described her as isolated, controlling, explosive, sexualized, intrusive, vindictive, and narcissistic. She described herself as disgusting and said she wished she were dead. The diagnoses in her chart were bipolar disorder, intermittent explosive disorder, reactive attachment disorder, attention deficit disorder (ADD) hyperactive subtype, oppositional defiant disorder (ODD), and substance use disorder. But who, really, is Virginia? How can we help her have a life?¹

We can hope to solve the problems of these children only if we correctly define what is going on with them and do more than developing new drugs to control them or trying to find “the” gene that is responsible for their “disease.” The challenge is to find ways to help them lead productive lives and, in so doing, save hundreds of millions of dollars of taxpayers' money. That process starts with facing the facts.

BAD GENES?

With such pervasive problems and such dysfunctional parents we would be tempted to ascribe their problems simply to bad genes. Technology always produces new directions for research, and when it became possible to do genetic testing, psychiatry became committed to finding the genetic causes of mental illness. Finding a genetic link seemed particularly relevant for schizophrenia, a fairly common (affecting about 1 percent of the population), severe, and perplexing form of mental illness and one that clearly runs in families. And yet after thirty years and millions upon millions of dollars' worth of research, we have failed to find consistent genetic patterns for schizophrenia—or for any other psychiatric illness, for that matter.² Some of my colleagues have also worked hard to discover genetic factors that predispose people to develop traumatic stress.³ That quest continues, but so far it has failed to yield any solid answers.⁴

Recent research has swept away the simple idea that “having” a particular gene produces a particular result. It turns out that many genes work together to influence a single outcome. Even more important, genes are not fixed; life events can trigger biochemical messages that turn them on or off by attaching methyl groups, a cluster of carbon and hydrogen atoms, to the outside of the gene (a process called methylation), making it more or less sensitive to messages from the body. While life events can change the behavior of the gene, they do not alter its fundamental structure. Methylation patterns, however, can be passed on to offspring—a phenomenon known as epigenetics. Once again, the body keeps the score, at the deepest levels of the organism.

One of the most cited experiments in epigenetics was conducted by McGill University researcher Michael Meaney, who studies newborn rat pups and their mothers.⁵ He discovered that how much a mother rat licks and grooms her pups during the first twelve hours after their birth permanently affects the brain chemicals that respond to stress—and modifies the configuration of over a thousand genes. The rat pups that are intensively licked by their mothers are braver and produce lower levels of stress hormones under stress than rats whose mothers are less attentive. They also recover more quickly—an equanimity that lasts throughout their lives. They develop thicker connections in the hippocampus, a key center for learning and memory, and they perform better in an important rodent skill—finding their way through mazes.

We are just beginning to learn that stressful experiences affect gene expression in humans, as well. Children whose pregnant mothers had been trapped in unheated houses in a prolonged ice storm in Quebec had major epigenetic changes compared with the children of mothers whose heat had been restored within a day.⁶ McGill researcher Moshe Szyf compared the epigenetic profiles of hundreds of children born into the extreme ends of social privilege in the United Kingdom and measured the effects of child abuse on both groups. Differences in social class were associated with distinctly different epigenetic profiles, but abused children in both groups had in common specific modifications in seventy-three genes. In Szyf's words, “Major changes to our bodies can be made not just by chemicals and toxins, but also in the way the social world talks to the hard-wired world.”^{7,8}

MONKEYS CLARIFY OLD QUESTIONS ABOUT NATURE VERSUS NURTURE

One of the clearest ways of understanding how the quality of parenting and environment affects the expression of genes comes from the work of Stephen Suomi, chief of the National Institutes

of Health's Laboratory of Comparative Ethology.⁹ For more than forty years Suomi has been studying the transmission of personality through generations of rhesus monkeys, which share 95 percent of human genes, a number exceeded only by chimpanzees and bonobos. Like humans, rhesus monkeys live in large social groups with complex alliances and status relationships, and only members who can synchronize their behavior with the demands of the troop survive and flourish.

Rhesus monkeys are also like humans in their attachment patterns. Their infants depend on intimate physical contact with their mothers, and just as Bowlby observed in humans, they develop by exploring their reactions to their environment, running back to their mothers whenever they feel scared or lost. Once they become more independent, play with their peers is the primary way they learn to get along in life.

Suomi identified two personality types that consistently ran into trouble: uptight, anxious monkeys, who become fearful, withdrawn, and depressed even in situations where other monkeys will play and explore; and highly aggressive monkeys, who make so much trouble that they are often shunned, beaten up, or killed. Both types are biologically different from their peers. Abnormalities in arousal levels, stress hormones, and metabolism of brain chemicals like serotonin can be detected within the first few weeks of life, and neither their biology nor their behavior tends to change as they mature. Suomi discovered a wide range of genetically driven behaviors. For example, the uptight monkeys (classified as such on the basis of both their behavior and their high cortisol levels at six months) will consume more alcohol in experimental situations than the others when they reach the age of four. The genetically aggressive monkeys also overindulge—but they binge drink to the point of passing out, while the uptight monkeys seem to drink to calm down.

And yet the social environment also contributes significantly to behavior and biology. The uptight, anxious females don't play well with others and thus often lack social support when they give birth and are at high risk for neglecting or abusing their firstborns. But when these females belong to a stable social group they often become diligent mothers who carefully watch out for their young. Under some conditions being an anxious mom can provide much needed protection. The aggressive mothers, on the other hand, did not provide any social advantages: very punitive with their offspring, there is lots of hitting, kicking, and biting. If the infants survive, their mothers usually keep them from making friends with their peers.

In real life it is impossible to tell whether people's aggressive or uptight behavior is the result of parents' genes or of having been raised by an abusive mother—or both. But in a monkey lab you can take newborns with vulnerable genes away from their biological mothers and have them raised by supportive mothers or in playgroups with peers.

Young monkeys who are taken away from their mothers at birth and brought up solely with their peers become intensely attached to them. They desperately cling to one another and don't peel away enough to engage in healthy exploration and play. What little play there is lacks the complexity and imagination typical of normal monkeys. These monkeys grow up to be uptight: scared in new situations and lacking in curiosity. Regardless of their genetic predisposition, peer-raised monkeys overreact to minor stresses: Their cortisol increases much more in response to loud noises than does that of monkeys who were raised by their mothers. Their serotonin metabolism is even more abnormal than that of the monkeys who are genetically predisposed to aggression but who were raised by their own mothers. This leads to the conclusion that, at least

in monkeys, early experience has at least as much impact on biology as heredity does.

Monkeys and humans share the same two variants of the serotonin gene (known as the short and long serotonin transporter alleles). In humans the short allele has been associated with impulsivity, aggression, sensation seeking, suicide attempts, and severe depression. Suomi showed that, at least in monkeys, the environment shapes how these genes affect behavior. Monkeys with the short allele that were raised by an adequate mother behaved normally and had no deficit in their serotonin metabolism. Those who were raised with their peers became aggressive risk takers.¹⁰ Similarly, New Zealand researcher Alec Roy found that humans with the short allele had higher rates of depression than those with the long version but that this was true only if they also had a childhood history of abuse or neglect. The conclusion is clear: Children who are fortunate enough to have an attuned and attentive parent are not going to develop this genetically related problem.¹¹

Suomi's work supports everything we've learned from our colleagues who study human attachment and from our own clinical research: Safe and protective early relationships are critical to protect children from long-term problems. In addition, even parents with their own genetic vulnerabilities can pass on that protection to the next generation provided that they are given the right support.

THE NATIONAL CHILD TRAUMATIC STRESS NETWORK

Nearly every medical disease, from cancer to retinitis pigmentosa, has advocacy groups that promote the study and treatment of that particular condition. But until 2001, when the National Child Traumatic Stress Network was established by an act of Congress, there was no comprehensive organization dedicated to the research and treatment of traumatized children.

In 1998 I received a call from Adam Cummings from the Nathan Cummings Foundation telling me that they were interested in studying the effects of trauma on learning. I told them that while some very good work had been done on that subject,¹² there was no forum to implement the discoveries that had already been made. The mental, biological, or moral development of traumatized children was not being systematically taught to child-care workers, to pediatricians, or in graduate schools of psychology or social work.

Adam and I agreed that we had to address this problem. Some eight months later we convened a think tank that included representatives from the U.S. Department of Health and Human Services and the U.S. Department of Justice, Senator Ted Kennedy's health-care adviser, and a group of my colleagues who specialized in childhood trauma. We all were familiar with the basics of how trauma affects the developing mind and brain, and we all were aware that childhood trauma is radically different from traumatic stress in fully formed adults. The group concluded that, if we hoped to ever put the issue of childhood trauma firmly on the map, there needed to be a national organization that would promote both the study of childhood trauma and the education of teachers, judges, ministers, foster parents, physicians, probation officers, nurses, and mental health professionals—anyone who deals with abused and traumatized kids.

One member of our work group, Bill Harris, had extensive experience with child-related legislation, and he went to work with Senator Kennedy's staff to craft our ideas into law. The bill establishing the National Child Traumatic Stress Network was ushered through the Senate with overwhelming bipartisan support, and since 2001 it has grown from a collaborative network of

17 sites to more than 150 centers nationwide. Led by coordinating centers at Duke University and UCLA, the NCTSN includes universities, hospitals, tribal agencies, drug rehab programs, mental health clinics, and graduate schools. Each of the sites, in turn, collaborates with local school systems, hospitals, welfare agencies, homeless shelters, juvenile justice programs, and domestic violence shelters, with a total of well over 8,300 affiliated partners.

Once the NCTSN was up and running, we had the means to assemble a clearer profile of traumatized kids in every part of the country. My Trauma Center colleague Joseph Spinazzola led a survey that examined the records of nearly two thousand children and adolescents from agencies across the network.¹³ We soon confirmed what we had suspected: The vast majority came from extremely dysfunctional families. More than half had been emotionally abused and/or had a caregiver who was too impaired to care for their needs. Almost 50 percent had temporarily lost caregivers to jail, treatment programs, or military service and had been looked after by strangers, foster parents, or distant relatives. About half reported having witnessed domestic violence, and a quarter were also victims of sexual and/or physical abuse. In other words, the children and adolescents in the survey were mirrors of the middle-aged, middle-class Kaiser Permanente patients with high ACE scores that Vincent Felitti had studied in the Adverse Childhood Experiences (ACE) Study.

THE POWER OF DIAGNOSIS

In the 1970s there was no way to classify the wide-ranging symptoms of hundreds of thousands of returning Vietnam veterans. As we saw in the opening chapters of this book, this forced clinicians to improvise the treatment of their patients and prevented them from being able to systematically study what approaches actually worked. The adoption of the PTSD diagnosis by the DSM III in 1980 led to extensive scientific studies and to the development of effective treatments, which turned out to be relevant not only to combat veterans but also to victims of a range of traumatic events, including rape, assault, and motor vehicle accidents.¹⁴ An example of the far-ranging power of having a specific diagnosis is the fact that between 2007 and 2010 the Department of Defense spent more than \$2.7 billion for the treatment of and research on PTSD in combat veterans, while in fiscal year 2009 alone the Department of Veterans Affairs spent \$24.5 million on in-house PTSD research.

The DSM definition of PTSD is quite straightforward: A person is exposed to a horrendous event “that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others,” causing “intense fear, helplessness, or horror,” which results in a variety of manifestations: intrusive reexperiencing of the event (flashbacks, bad dreams, feeling as if the event were occurring), persistent and crippling avoidance (of people, places, thoughts, or feelings associated with the trauma, sometimes with amnesia for important parts of it), and increased arousal (insomnia, hypervigilance, or irritability). This description suggests a clear story line: A person is suddenly and unexpectedly devastated by an atrocious event and is never the same again. The trauma may be over, but it keeps being replayed in continually recycling memories and in a reorganized nervous system.

How relevant was this definition to the children we were seeing? After a single traumatic incident—a dog bite, an accident, or witnessing a school shooting—children can indeed develop basic PTSD symptoms similar to those of adults, even if they live in safe and supportive homes.

As a result of having the PTSD diagnosis, we now can treat those problems quite effectively.

In the case of the troubled children with histories of abuse and neglect who show up in clinics, schools, hospitals, and police stations, the traumatic roots of their behaviors are less obvious, particularly because they rarely talk about having been hit, abandoned, or molested, even when asked. Eighty two percent of the traumatized children seen in the National Child Traumatic Stress Network do not meet diagnostic criteria for PTSD.¹⁵ Because they often are shut down, suspicious, or aggressive they now receive pseudoscientific diagnoses such as “oppositional defiant disorder,” meaning “This kid hates my guts and won’t do anything I tell him to do,” or “disruptive mood dysregulation disorder,” meaning he has temper tantrums. Having as many problems as they do, these kids accumulate numerous diagnoses over time. Before they reach their twenties, many patients have been given four, five, six, or more of these impressive but meaningless labels. If they receive treatment at all, they get whatever is being promulgated as the method of management du jour: medications, behavioral modification, or exposure therapy. These rarely work and often cause more damage.

As the NCTSN treated more and more kids, it became increasingly obvious that we needed a diagnosis that captured the reality of their experience. We began with a database of nearly twenty thousand kids who were being treated in various sites within the network and collected all the research articles we could find on abused and neglected kids. These were winnowed down to 130 particularly relevant studies that reported on more than one hundred thousand children and adolescents worldwide. A core work group of twelve clinician/researchers specializing in childhood trauma¹⁶ then convened twice a year for four years to draft a proposal for an appropriate diagnosis, which we decided to call Developmental Trauma Disorder.¹⁷

As we organized our findings, we discovered a consistent profile: (1) a pervasive pattern of dysregulation, (2) problems with attention and concentration, and (3) difficulties getting along with themselves and others. These children’s moods and feelings rapidly shifted from one extreme to another—from temper tantrums and panic to detachment, flatness, and dissociation. When they got upset (which was much of the time), they could neither calm themselves down nor describe what they were feeling.

Having a biological system that keeps pumping out stress hormones to deal with real or imagined threats leads to physical problems: sleep disturbances, headaches, unexplained pain, oversensitivity to touch or sound. Being so agitated or shut down keeps them from being able to focus their attention and concentration. To relieve their tension, they engage in chronic masturbation, rocking, or self-harming activities (biting, cutting, burning, and hitting themselves, pulling their hair out, picking at their skin until it bled). It also leads to difficulties with language processing and fine-motor coordination. Spending all their energy on staying in control, they usually have trouble paying attention to things, like schoolwork, that are not directly relevant to survival, and their hyperarousal makes them easily distracted.

Having been frequently ignored or abandoned leaves them clinging and needy, even with the people who have abused them. Having been chronically beaten, molested, and otherwise mistreated, they cannot help but define themselves as defective and worthless. They come by their self-loathing, sense of defectiveness, and worthlessness honestly. Was it any surprise that they didn’t trust anyone? Finally, the combination of feeling fundamentally despicable and overreacting to slight frustrations makes it difficult for them to make friends.

We published the first articles about our findings, developed a validated rating scale,¹⁸ and

collected data on about 350 kids and their parents or foster parents to establish that this one diagnosis, Developmental Trauma Disorder, captured the full range of what was wrong with these children. It would enable us to give them a single diagnosis, as opposed to multiple labels, and would firmly locate the origin of their problems in a combination of trauma and compromised attachment.

In February 2009 we submitted our proposed new diagnosis of Developmental Trauma Disorder to the American Psychiatric Association, stating the following in a cover letter:

Children who develop in the context of ongoing danger, maltreatment and disrupted caregiving systems are being ill served by the current diagnostic systems that lead to an emphasis on behavioral control with no recognition of interpersonal trauma. Studies on the sequelae of childhood trauma in the context of caregiver abuse or neglect consistently demonstrate chronic and severe problems with emotion regulation, impulse control, attention and cognition, dissociation, interpersonal relationships, and self and relational schemas. In absence of a sensitive trauma-specific diagnosis, such children are currently diagnosed with an average of 3–8 co-morbid disorders. The continued practice of applying multiple distinct co-morbid diagnoses to traumatized children has grave consequences: it defies parsimony, obscures etiological clarity, and runs the danger of relegating treatment and intervention to a small aspect of the child's psychopathology rather than promoting a comprehensive treatment approach.

Shortly after submitting our proposal, I gave a talk on Developmental Trauma Disorder in Washington DC to a meeting of the mental health commissioners from across the country. They offered to support our initiative by writing a letter to the APA. The letter began by pointing out that the National Association of State Mental Health Program Directors served 6.1 million people annually, with a budget of \$29.5 billion, and concluded: "We urge the APA to add developmental trauma to its list of priority areas to clarify and better characterize its course and clinical sequelae and to emphasize the strong need to address developmental trauma in the assessment of patients."

I felt confident that this letter would ensure that the APA would take our proposal seriously, but several months after our submission, Matthew Friedman, executive director of the National Center for PTSD and chair of the relevant DSM subcommittee, informed us that DTD was unlikely to be included in the DSM-V. The consensus, he wrote, was that no new diagnosis was required to fill a "missing diagnostic niche." One million children who are abused and neglected every year in the United States a "diagnostic niche"?

The letter went on: "The notion that early childhood adverse experiences lead to substantial developmental disruptions is more clinical intuition than a research-based fact. This statement is commonly made but cannot be backed up by prospective studies." In fact, we had included several prospective studies in our proposal. Let's look at just two of them here.

HOW RELATIONSHIPS SHAPE DEVELOPMENT

Beginning in 1975 and continuing for almost thirty years, Alan Sroufe and his colleagues tracked 180 children and their families through the Minnesota Longitudinal Study of Risk and

Adaptation.¹⁹ At the time the study began there was an intense debate about the role of nature versus nurture, and temperament versus environment in human development, and this study set out to answer those questions. Trauma was not yet a popular topic, and child abuse and neglect were not a central focus of this study—at least initially, until they emerged as the most important predictors of adult functioning.

Working with local medical and social agencies, the researchers recruited first-time (Caucasian) mothers who were poor enough to qualify for public assistance but who had different backgrounds and different kinds and levels of support available for parenting. The study began three months before the children were born and followed the children for thirty years into adulthood, assessing and, where relevant, measuring all the major aspects of their functioning and all the significant circumstances of their lives. It considered several fundamental questions: How do children learn to pay attention while regulating their arousal (i.e., avoiding extreme highs or lows) and keeping their impulses under control? What kinds of supports do they need, and when are these needed?

After extensive interviews and testing of the prospective parents, the study really got off the ground in the newborn nursery, where researchers observed the newborns and interviewed the nurses caring for them. They then made home visits seven and ten days after birth. Before the children entered first grade, they and their parents were carefully assessed a total of fifteen times. After that, the children were interviewed and tested at regular intervals until age twenty-eight, with continuing input from mothers and teachers.

Sroufe and his colleagues found that quality of care and biological factors were closely interwoven. It is fascinating to see how the Minnesota results echo—though with far greater complexity—what Stephen Suomi found in his primate laboratory. Nothing was written in stone. Neither the mother's personality, nor the infant's neurological anomalies at birth, nor its IQ, nor its temperament—including its activity level and reactivity to stress—predicted whether a child would develop serious behavioral problems in adolescence.²⁰ The key issue, rather, was the nature of the parent-child relationship: how parents felt about and interacted with their kids. As with Suomi's monkeys, the combination of vulnerable infants and inflexible caregivers made for clingy, uptight kids. Insensitive, pushy, and intrusive behavior on the part of the parents at six months predicted hyperactivity and attention problems in kindergarten and beyond.²¹

Focusing on many facets of development, particularly relationships with caregivers, teachers, and peers, Sroufe and his colleagues found that caregivers not only help keep arousal within manageable bounds but also help infants develop their own ability to regulate their arousal. Children who were regularly pushed over the edge into overarousal and disorganization did not develop proper attunement of their inhibitory and excitatory brain systems and grew up expecting that they would lose control if something upsetting happened. This was a vulnerable population, and by late adolescence half of them had diagnosable mental health problems. There were clear patterns: The children who received consistent caregiving became well-regulated kids, while erratic caregiving produced kids who were chronically physiologically aroused. The children of unpredictable parents often clamored for attention and became intensely frustrated in the face of small challenges. Their persistent arousal made them chronically anxious. Constantly looking for reassurance got in the way of playing and exploration, and, as a result, they grew up chronically nervous and nonadventurous.

Early parental neglect or harsh treatment led to behavior problems in school and predicted

troubles with peers and a lack of empathy for the distress of others.²² This set up a vicious cycle: Their chronic arousal, coupled with lack of parental comfort, made them disruptive, oppositional, and aggressive. Disruptive and aggressive kids are unpopular and provoke further rejection and punishment, not only from their caregivers but also from their teachers and peers.²³

Sroufe also learned a great deal about resilience: the capacity to bounce back from adversity. By far the most important predictor of how well his subjects coped with life's inevitable disappointments was the level of security established with their primary caregiver during the first two years of life. Sroufe informally told me that he thought that resilience in adulthood could be predicted by how lovable mothers rated their kids at age two.²⁴

THE LONG-TERM EFFECTS OF INCEST

In 1986 Frank Putnam and Penelope Trickett, his colleague at the National Institute of Mental Health, initiated the first longitudinal study of the impact of sexual abuse on female development.²⁵ Until the results of this study came out, our knowledge about the effects of incest was based entirely on reports from children who had recently disclosed their abuse and on accounts from adults reconstructing years or even decades later how incest had affected them. No study had ever followed girls as they matured to examine how sexual abuse might influence their school performance, peer relationships, and self-concept, as well as their later dating life. Putnam and Trickett also looked at changes over time in their subjects' stress hormones, reproductive hormones, immune function, and other physiological measures. In addition they explored potential protective factors, such as intelligence and support from family and peers.

The researchers painstakingly recruited eighty-four girls referred by the District of Columbia Department of Social Services who had a confirmed history of sexual abuse by a family member. These were matched with a comparison group of eighty-two girls of the same age, race, socioeconomic status, and family constellation who had not been abused. The average starting age was eleven. Over the next twenty years these two groups were thoroughly assessed six times, once a year for the first three years and again at ages eighteen, nineteen, and twenty-five. Their mothers participated in the early assessments, and their own children took part in the last. A remarkable 96 percent of the girls, now grown women, have stayed in the study from its inception.

The results were unambiguous: Compared with girls of the same age, race, and social circumstances, sexually abused girls suffer from a large range of profoundly negative effects, including cognitive deficits, depression, dissociative symptoms, troubled sexual development, high rates of obesity, and self-mutilation. They dropped out of high school at a higher rate than the control group and had more major illnesses and health-care utilization. They also showed abnormalities in their stress hormone responses, had an earlier onset of puberty, and accumulated a host of different, seemingly unrelated, psychiatric diagnoses.

The follow-up research revealed many details of how abuse affects development. For example, each time they were assessed, the girls in both groups were asked to talk about the worst thing that had happened to them during the previous year. As they told their stories, the researchers observed how upset they became, while measuring their physiology. During the first assessment all the girls reacted by becoming distressed. Three years later, in response to the same question, the nonabused girls once again displayed signs of distress, but the abused girls

shut down and became numb. Their biology matched their observable reactions: During the first assessment all of the girls showed an increase in the stress hormone cortisol; three years later cortisol went down in the abused girls as they reported on the most stressful event of the past year. Over time the body adjusts to chronic trauma. One of the consequences of numbing is that teachers, friends, and others are not likely to notice that a girl is upset; she may not even register it herself. By numbing out she no longer reacts to distress the way she should, for example, by taking protective action.

Putnam's study also captured the pervasive long-term effects of incest on friendships and partnering. Before the onset of puberty nonabused girls usually have several girlfriends, as well as one boy who functions as a sort of spy who informs them about what these strange creatures, boys, are all about. After they enter adolescence, their contacts with boys gradually increase. In contrast, before puberty the abused girls rarely have close friends, girls or boys, but adolescence brings many chaotic and often traumatizing contacts with boys.

Lacking friends in elementary school makes a crucial difference. Today we're aware how cruel third-, fourth-, and fifth-grade girls can be. It's a complex and rocky time when friends can suddenly turn on one another and alliances dissolve in exclusions and betrayals. But there is an upside: By the time girls get to middle school, most have begun to master a whole set of social skills, including being able to identify what they feel, negotiating relationships with others, pretending to like people they don't, and so on. And most of them have built a fairly steady support network of girls who become their stress-debriefing team. As they slowly enter the world of sex and dating, these relationships give them room for reflection, gossip, and discussion of what it all means.

The sexually abused girls have an entirely different developmental pathway. They don't have friends of either gender because they can't trust; they hate themselves, and their biology is against them, leading them either to overreact or numb out. They can't keep up in the normal envy-driven inclusion/exclusion games, in which players have to stay cool under stress. Other kids usually don't want anything to do with them—they simply are too weird.

But that's only the beginning of the trouble. The abused, isolated girls with incest histories mature sexually a year and a half earlier than the nonabused girls. Sexual abuse speeds up their biological clocks and the secretion of sex hormones. Early in puberty the abused girls had three to five times the levels of testosterone and androstenedione, the hormones that fuel sexual desire, as the girls in the control group.

Results of Putnam and Trickett's study continue to be published, but it has already created an invaluable road map for clinicians dealing with sexually abused girls. At the Trauma Center, for example, one of our clinicians reported on a Monday morning that a patient named Ayesha had been raped—again—over the weekend. She had run away from her group home at five o'clock on Saturday, gone to a place in Boston where druggies hang out, smoked some dope and done some other drugs, and then left with a bunch of boys in a car. At five o'clock Sunday morning they had gang-raped her. Like so many of the adolescents we see, Ayesha can't articulate what she wants or needs and can't think through how she might protect herself. Instead, she lives in a world of actions. Trying to explain her behavior in terms of victim/perpetrator isn't helpful, nor are labels like "depression," "oppositional defiant disorder," "intermittent explosive disorder," "bipolar disorder," or any of the other options our diagnostic manuals offer us. Putnam's work has helped us understand how Ayesha experiences the world—why she cannot tell us what is going on with her, why she is so impulsive and lacking in self-

protection, and why she views us as frightening and intrusive rather than as people who can help her.

THE DSM-V: A VERITABLE SMORGASBORD OF “DIAGNOSES”

When DSM-V was published in May 2013 it included some three hundred disorders in its 945 pages. It offers a veritable smorgasbord of possible labels for the problems associated with severe early-life trauma, including some new ones such as Disruptive Mood Regulation Disorder,²⁶ Non-suicidal Self Injury, Intermittent Explosive Disorder, Dysregulated Social Engagement Disorder, and Disruptive Impulse Control Disorder.²⁷

Before the late nineteenth century doctors classified illnesses according to their surface manifestations, like fevers and pustules, which was not unreasonable, given that they had little else to go on.²⁸ This changed when scientists like Louis Pasteur and Robert Koch discovered that many diseases were caused by bacteria that were invisible to the naked eye. Medicine then was transformed by its attempts to discover ways to get rid of those organisms rather than just treating the boils and the fevers that they caused. With DSM-V psychiatry firmly regressed to early-nineteenth-century medical practice. Despite the fact that we know the origin of many of the problems it identifies, its “diagnoses” describe surface phenomena that completely ignore the underlying causes.

Even before DSM-V was released, the *American Journal of Psychiatry* published the results of validity tests of various new diagnoses, which indicated that the DSM largely lacks what in the world of science is known as “reliability”—the ability to produce consistent, replicable results. In other words, it lacks scientific validity. Oddly, the lack of reliability and validity did not keep the DSM-V from meeting its deadline for publication, despite the near-universal consensus that it represented no improvement over the previous diagnostic system.²⁹ Could the fact that the APA had earned \$100 million on the DSM-IV and is slated to take in a similar amount with the DSM-V (because all mental health practitioners, many lawyers, and other professionals will be obliged to purchase the latest edition) be the reason we have this new diagnostic system?

Diagnostic reliability isn’t an abstract issue: If doctors can’t agree on what ails their patients, there is no way they can provide proper treatment. When there’s no relationship between diagnosis and cure, a mislabeled patient is bound to be a mistreated patient. You would not want to have your appendix removed when you are suffering from a kidney stone, and you would not want to have somebody labeled as “oppositional” when, in fact, his behavior is rooted in an attempt to protect himself against real danger.

In a statement released in June 2011, the British Psychological Society complained to the APA that the sources of psychological suffering in the DSM-V were identified “as located within individuals” and overlooked the “undeniable social causation of many such problems.”³⁰ This was in addition to a flood of protest from American professionals, including leaders of the American Psychological Association and the American Counseling Association. Why are relationships or social conditions left out?³¹ If you pay attention only to faulty biology and defective genes as the cause of mental problems and ignore abandonment, abuse, and deprivation, you are likely to run into as many dead ends as previous generations did blaming it all on terrible mothers.

The most stunning rejection of the DSM-V came from the National Institute of Mental Health, which funds most psychiatric research in America. In April 2013, a few weeks before DSM-V was formally released, NIMH director Thomas Insel announced that his agency could no longer support DSM's "symptom-based diagnosis."³² Instead the institute would focus its funding on what are called Research Domain Criteria (RDoC)³³ to create a framework for studies that would cut across current diagnostic categories. For example, one of the NIMH domains is "Arousal/Modulatory Systems (Arousal, Circadian Rhythm, Sleep and Wakefulness)," which are disturbed to varying degrees in many patients.

Like the DSM-V, the RDoC framework conceptualizes mental illnesses solely as brain disorders. This means that future research funding will explore the brain circuits "and other neurobiological measures" that underlie mental problems. Insel sees this as a first step toward the sort of "precision medicine that has transformed cancer diagnosis and treatment." Mental illness, however, is not at all like cancer: Humans are social animals, and mental problems involve not being able to get along with other people, not fitting in, not belonging, and in general not being able to get on the same wavelength.

Everything about us—our brains, our minds, and our bodies—is geared toward collaboration in social systems. This is our most powerful survival strategy, the key to our success as a species, and it is precisely this that breaks down in most forms of mental suffering. As we saw in part 2, the neural connections in brain and body are vitally important for understanding human suffering, but it is important not to ignore the foundations of our humanity: relationships and interactions that shape our minds and brains when we are young and that give substance and meaning to our entire lives.

People with histories of abuse, neglect, or severe deprivation will remain mysterious and largely untreated unless we heed the admonition of Alan Sroufe: "To fully understand how we become the persons we are—the complex, step-by-step evolution of our orientations, capacities, and behavior over time—requires more than a list of ingredients, however important any one of them might be. It requires an understanding of the process of development, how all of these factors work together in an ongoing way over time."³⁴

Frontline mental health workers—overwhelmed and underpaid social workers and therapists alike—seem to agree with our approach. Shortly after the APA rejected Developmental Trauma Disorder for inclusion in the DSM, thousands of clinicians from around the country sent small contributions to the Trauma Center to help us conduct a large scientific study, known as a field trial, to further study DTD. That support has enabled us to interview hundreds of kids, parents, foster parents, and mental health workers at five different network sites over the last few years with scientifically constructed interview tools. The first results from these studies have now been published, and more will appear as this book is going to print.³⁵

WHAT DIFFERENCE WOULD DTD MAKE?

One answer is that it would focus research and treatment (not to mention funding) on the central principles that underlie the protean symptoms of chronically traumatized children and adults: pervasive biological and emotional dysregulation, failed or disrupted attachment, problems staying focused and on track, and a hugely deficient sense of coherent personal identity and competence. These issues transcend and include almost all diagnostic categories, but treatment

that doesn't put them front and center is more than likely to miss the mark. Our great challenge is to apply the lessons of neuroplasticity, the flexibility of brain circuits, to rewire the brains and reorganize the minds of people who have been programmed by life itself to experience others as threats and themselves as helpless.

Social support is a biological necessity, not an option, and this reality should be the backbone of all prevention and treatment. Recognizing the profound effects of trauma and deprivation on child development need not lead to blaming parents. We can assume that parents do the best they can, but all parents need help to nurture their kids. Nearly every industrialized nation, with the exception of the United States, recognizes this and provides some form of guaranteed support to families. James Heckman, winner of the 2000 Nobel Prize in Economics, has shown that quality early-childhood programs that involve parents and promote basic skills in disadvantaged children more than pay for themselves in improved outcomes.³⁶

In the early 1970s psychologist David Olds was working in a Baltimore day-care center where many of the preschoolers came from homes wracked by poverty, domestic violence, and drug abuse. Aware that only addressing the children's problems at school was not sufficient to improve their home conditions, he started a home-visitation program in which skilled nurses helped mothers to provide a safe and stimulating environment for their children and, in the process, to imagine a better future for themselves. Twenty years later, the children of the home-visitation mothers were not only healthier but also less likely to report having been abused or neglected than a similar group whose mothers had not been visited. They also were more likely to have finished school, to have stayed out of jail, and to be working in well-paying jobs. Economists have calculated that every dollar invested in high-quality home visitation, day care, and preschool programs results in seven dollars of savings on welfare payments, health-care costs, substance-abuse treatment, and incarceration, plus higher tax revenues due to better-paying jobs.³⁷

When I go to Europe to teach, I often am contacted by officials at the ministries of health in the Scandinavian countries, the United Kingdom, Germany, or the Netherlands and asked to spend an afternoon with them sharing the latest research on the treatment of traumatized children, adolescents, and their families. The same is true for many of my colleagues. These countries have already made a commitment to universal health care, ensuring a guaranteed minimum wage, paid parental leave for both parents after a child is born, and high-quality childcare for all working mothers.

Could this approach to public health have something to do with the fact that the incarceration rate in Norway is 71/100,000, in the Netherlands 81/100,000, and the US 781/100,000, while the crime rate in those countries is much lower than in ours, and the cost of medical care about half? Seventy percent of prisoners in California spent time in foster care while growing up. The United States spends \$84 billion per year to incarcerate people at approximately \$44,000 per prisoner; the northern European countries a fraction of that amount. Instead, they invest in helping parents to raise their children in safe and predictable surroundings. Their academic test scores and crime rates seem to reflect the success of those investments.

PART FOUR

THE IMPRINT OF TRAUMA

CHAPTER 11

UNCOVERING SECRETS: THE PROBLEM OF TRAUMATIC MEMORY

It is a strange thing that all the memories have these two qualities. They are always full of quietness, that is the most striking thing about them; and even when things weren't like that in reality, they still seem to have that quality. They are soundless apparitions, which speak to me by looks and gestures, wordless and silent—and their silence is precisely what disturbs me.

—Erich Maria Remarque, *All Quiet on the Western Front*

In the spring of 2002 I was asked to examine a young man who claimed to have been sexually abused while he was growing up by Paul Shanley, a Catholic priest who had served in his parish in Newton, Massachusetts. Now twenty-five years old, he had apparently forgotten the abuse until he heard that the priest was currently under investigation for molesting young boys. The question posed to me was: Even though he had seemingly “repressed” the abuse for well over a decade after it ended, were his memories credible, and was I prepared to testify to that fact before a judge?

I will share what this man, whom I'll call Julian, told me, drawing on my original case notes. (Even though his real name is in the public record, I'm using a pseudonym because I hope that he has regained some privacy and peace with the passage of time.¹)

His experiences illustrate the complexities of traumatic memory. The controversies over the case against Father Shanley are also typical of the passions that have swirled around this issue since psychiatrists first described the unusual nature of traumatic memories in the final decades of the nineteenth century.

FLOODED BY SENSATIONS AND IMAGES

On February 11, 2001, Julian was serving as a military policeman at an air force base. During his daily phone conversation with his girlfriend, Rachel, she mentioned a lead article she'd read that morning in the *Boston Globe*. A priest named Shanley was under suspicion for molesting

children. Hadn't Julian once told her about a Father Shanley who had been his parish priest back in Newton? "Did he ever do anything to you?" she asked. Julian initially recalled Father Shanley as a kind man who'd been very supportive after his parents got divorced. But as the conversation went on, he started to go into a panic. He suddenly saw Shanley silhouetted in a doorway, his hands stretched out at forty-five degrees, staring at Julian as he urinated. Overwhelmed by emotion, he told Rachel, "I've got to go." He called his flight chief, who came over accompanied by the first sergeant. After he met with the two of them, they took him to the base chaplain. Julian recalls telling him: "Do you know what is going on in Boston? It happened to me, too." The moment he heard himself say those words, he knew for certain that Shanley had molested him—even though he did not remember the details. Julian felt extremely embarrassed about being so emotional; he had always been a strong kid who kept things to himself.

That night he sat on the corner of his bed, hunched over, thinking he was losing his mind and terrified that he would be locked up. Over the subsequent week images kept flooding into his mind, and he was afraid of breaking down completely. He thought about taking a knife and plunging it into his leg just to stop the mental pictures. Then the panic attacks started to be accompanied by seizures, which he called "epileptic fits." He scratched his body until he bled. He constantly felt hot, sweaty, and agitated. Between panic attacks he "felt like a zombie"; he was observing himself from a distance, as if what he was experiencing were actually happening to somebody else.

In April he received an administrative discharge, just ten days short of being eligible to receive full benefits.

When Julian entered my office almost a year later, I saw a handsome, muscular guy who looked depressed and defeated. He told me immediately that he felt terrible about having left the air force. He had wanted to make it his career, and he'd always received excellent evaluations. He loved the challenges and the teamwork, and he missed the structure of the military lifestyle.

Julian was born in a Boston suburb, the second-oldest of five children. His father left the family when Julian was about six because he could not tolerate living with Julian's emotionally labile mother. Julian and his father get along quite well, but he sometimes reproaches his father for having worked too hard to support his family and for abandoning him to the care of his unbalanced mother. Neither his parents nor any of his siblings has ever received psychiatric care or been involved with drugs.

Julian was a popular athlete in high school. Although he had many friends, he felt pretty bad about himself and covered up for being a poor student by drinking and partying. He feels ashamed that he took advantage of his popularity and good looks by having sex with many girls. He mentioned wanting to call several of them to apologize for how badly he'd treated them.

He remembered always hating his body. In high school he took steroids to pump himself up and smoked marijuana almost every day. He did not go to college, and after graduating from high school he was virtually homeless for almost a year because he could no longer stand living with his mother. He enlisted to try to get his life back on track.

Julian met Father Shanley at age six when he was taking a CCD (catechism) class at the parish church. He remembered Father Shanley taking him out of the class for confession. Father Shanley rarely wore a cassock, and Julian remembered the priest's dark blue corduroy pants. They would go to a big room with one chair facing another and a bench to kneel on. The chairs were covered with red and there was a red velvet cushion on the bench. They played cards, a game of war that turned into strip poker. Then he remembered standing in front of a mirror in

that room. Father Shanley made him bend over. He remembered Father Shanley putting a finger into his anus. He does not think Shanley ever penetrated him with his penis, but he believes that the priest fingered him on numerous occasions.

Other than that, his memories were quite incoherent and fragmentary. He had flashes of images of Shanley's face and of isolated incidents: Shanley standing in the door of the bathroom; the priest going down on his knees and moving "it" around with his tongue. He could not say how old he was when that happened. He remembered the priest telling him how to perform oral sex, but he did not remember actually doing it. He remembered passing out pamphlets in church and then Father Shanley sitting next to him in a pew, fondling him with one hand and holding Julian's hand on himself with the other. He remembered that, as he grew older, Father Shanley would pass close to him and caress his penis. Paul did not like it but did not know what to do to stop it. After all, he told me, "Father Shanley was the closest thing to God in my neighborhood."

In addition to these memory fragments, traces of his sexual abuse were clearly being activated and replayed. Sometimes when he was having sex with his girlfriend, the priest's image popped into his head, and, as he said, he would "lose it." A week before I interviewed him, his girlfriend had pushed a finger into his mouth and playfully said: "You give good head." Julian jumped up and screamed, "If you ever say that again I'll fucking kill you." Then, terrified, they both started to cry. This was followed by one of Julian's "epileptic fits," in which he curled up in a fetal position, shaking and whimpering like a baby. While telling me this Julian looked very small and very frightened.

Julian alternated between feeling sorry for the old man that Father Shanley had become and simply wanting to "take him into a room somewhere and kill him." He also spoke repeatedly of how ashamed he felt, how hard it was to admit that he could not protect himself: "Nobody fucks with me, and now I have to tell you this." His self-image was of a big, tough Julian.

How do we make sense of a story like Julian's: years of apparent forgetting, followed by fragmented, disturbing images, dramatic physical symptoms, and sudden reenactments? As a therapist treating people with a legacy of trauma, my primary concern is not to determine exactly what happened to them but to help them tolerate the sensations, emotions, and reactions they experience without being constantly hijacked by them. When the subject of blame arises, the central issue that needs to be addressed is usually self-blame—accepting that the trauma was not their fault, that it was not caused by some defect in themselves, and that no one could ever have deserved what happened to them.

Once a legal case is involved, however, determination of culpability becomes primary, and with it the admissibility of evidence. I had previously examined twelve people who had been sadistically abused as children in a Catholic orphanage in Burlington, Vermont. They had come forward (with many other claimants) more than four decades later, and although none had had any contact with the others until the first claim was filed, their abuse memories were astonishingly similar: They all named the same names and the particular abuses that each nun or priest had committed—in the same rooms, with the same furniture, and as part of the same daily routines. Most of them subsequently accepted an out-of-court settlement from the Vermont diocese.

Before a case goes to trial, the judge holds a so-called Daubert hearing to set the standards for expert testimony to be presented to the jury. In a 1996 case I had convinced a federal circuit court judge in Boston that it was common for traumatized people to lose all memories of the event in question, only to regain access to them in bits and pieces at a much later date. The same

standards would apply in Julian's case. While my report to his lawyer remains confidential, it was based on decades of clinical experience and research on traumatic memory, including the work of some of the great pioneers of modern psychiatry.

NORMAL VERSUS TRAUMATIC MEMORY

We all know how fickle memory is; our stories change and are constantly revised and updated. When my brothers, sisters, and I talk about events in our childhood, we always end up feeling that we grew up in different families—so many of our memories simply do not match. Such autobiographical memories are not precise reflections of reality; they are stories we tell to convey our personal take on our experience.

The extraordinary capacity of the human mind to rewrite memory is illustrated in the Grant Study of Adult Development, which has systematically followed the psychological and physical health of more than two hundred Harvard men from their sophomore years of 1939–44 to the present.² Of course, the designers of the study could not have anticipated that most of the participants would go off to fight in World War II, but we can now track the evolution of their wartime memories. The men were interviewed in detail about their war experiences in 1945/1946 and again in 1989/1990. Four and a half decades later, the majority gave very different accounts from the narratives recorded in their immediate postwar interviews: With the passage of time, events had been bleached of their intense horror. In contrast, those who had been traumatized and subsequently developed PTSD did not modify their accounts; their memories were preserved essentially intact forty-five years after the war ended.

Whether we remember a particular event at all, and how accurate our memories of it are, largely depends on how personally meaningful it was and how emotional we felt about it at the time. The key factor is our level of arousal. We all have memories associated with particular people, songs, smells, and places that stay with us for a long time. Most of us still have precise memories of where we were and what we saw on Tuesday, September 11, 2001, but only a fraction of us recall anything in particular about September 10.

Most day-to-day experience passes immediately into oblivion. On ordinary days we don't have much to report when we come home in the evening. The mind works according to schemes or maps, and incidents that fall outside the established pattern are most likely to capture our attention. If we get a raise or a friend tells us some exciting news, we will retain the details of the moment, at least for a while. We remember insults and injuries best: The adrenaline that we secrete to defend against potential threats helps to engrave those incidents into our minds. Even if the content of the remark fades, our dislike for the person who made it usually persists.

When something terrifying happens, like seeing a child or a friend get hurt in an accident, we will retain an intense and largely accurate memory of the event for a long time. As James McGaugh and colleagues have shown, the more adrenaline you secrete, the more precise your memory will be.³ But that is true only up to a certain point. Confronted with horror—especially the horror of “inescapable shock”—this system becomes overwhelmed and breaks down.

Of course, we cannot monitor what happens during a traumatic experience, but we can reactivate the trauma in the laboratory, as was done for the brain scans in chapters 3 and 4. When memory traces of the original sounds, images, and sensations are reactivated, the frontal lobe shuts down, including, as we've seen, the region necessary to put feelings into words,⁴ the region

that creates our sense of location in time, and the thalamus, which integrates the raw data of incoming sensations. At this point the emotional brain, which is not under conscious control and cannot communicate in words, takes over. The emotional brain (the limbic area and the brain stem) expresses its altered activation through changes in emotional arousal, body physiology, and muscular action. Under ordinary conditions these two memory systems—rational and emotional—collaborate to produce an integrated response. But high arousal not only changes the balance between them but also disconnects other brain areas necessary for the proper storage and integration of incoming information, such as the hippocampus and the thalamus.⁵ As a result, the imprints of traumatic experiences are organized not as coherent logical narratives but in fragmented sensory and emotional traces: images, sounds, and physical sensations.⁶ Julian saw a man with outstretched arms, a pew, a staircase, a strip poker game; he felt a sensation in his penis, a panicked sense of dread. But there was little or no story.

UNCOVERING THE SECRETS OF TRAUMA

In the late nineteenth century, when medicine first began the systematic study of mental problems, the nature of traumatic memory was one of the central topics under discussion. In France and England a prodigious number of articles were published on a syndrome known as “railway spine,” a psychological aftermath of railroad accidents that included loss of memory.

The greatest advances, however, came in the study of hysteria, a mental disorder characterized by emotional outbursts, susceptibility to suggestion, and contractions and paralyzes of the muscles that could not be explained by simple anatomy.⁷ Once considered an affliction of unstable or malingering women (the name comes from the Greek word for “womb”), hysteria now became a window into the mysteries of mind and body. The names of some of the greatest pioneers in neurology and psychiatry, such as Jean-Martin Charcot, Pierre Janet, and Sigmund Freud, are associated with the discovery that trauma is at the root of hysteria, particularly the trauma of childhood sexual abuse.⁸ These early researchers referred to traumatic memories as “pathogenic secrets”⁹ or “mental parasites,”¹⁰ because as much as the sufferers wanted to forget whatever had happened, their memories kept forcing themselves into consciousness, trapping them in an ever-renewing present of existential horror.¹¹

The interest in hysteria was particularly strong in France, and, as so often happens, its roots lay in the politics of the day. Jean-Martin Charcot, who is widely regarded as the father of neurology and whose pupils, such as Gilles de la Tourette, lent their names to numerous neurological diseases, was also active in politics. After Emperor Napoleon III abdicated in 1870, there was a struggle between the monarchists (the old order backed by the clergy), and the advocates of the fledgling French Republic, who believed in science and in secular democracy. Charcot believed that women would be a critical factor in this struggle, and his investigation of hysteria “offered a scientific explanation for phenomena such as demonic possession states, witchcraft, exorcism, and religious ecstasy.”¹²

Charcot conducted meticulous studies of the physiological and neurological correlates of hysteria in both men and women, all of which emphasized embodied memory and a lack of language. For example, in 1889 he published the case of a patient named Lelög, who developed paralysis of the legs after being involved in a traffic accident with a horse-drawn cart. Although Lelög fell to the ground and lost consciousness, his legs appeared unhurt, and there were no

neurological signs that would indicate a physical cause for his paralysis. Charcot discovered that just before Lelog passed out, he saw the wheels of the cart approaching him and strongly believed he would be run over. He noted that “the patient . . . does not preserve any recollection. . . . Questions addressed to him upon this point are attended with no result. He knows nothing or almost nothing.”¹³ Like many other patients at the Salpêtrière, Lelog expressed his experience physically: Instead of remembering the accident, he developed paralysis of his legs.¹⁴



PAINTING BY ANDRE BROUILLET

Jean-Martin Charcot presents the case of a patient with hysteria. Charcot transformed La Salpêtrière, an ancient asylum for the poor of Paris, which he transformed into a modern hospital. Notice the patient's dramatic posture.

But for me the real hero of this story is Pierre Janet, who helped Charcot establish a research laboratory devoted to the study of hysteria at the Salpêtrière. In 1889, the same year that the Eiffel Tower was built, Janet published the first book-length scientific account of traumatic stress: *L'automatisme psychologique*.¹⁵ Janet proposed that at the root of what we now call PTSD was the experience of “vehement emotions,” or intense emotional arousal. This treatise explained that, after having been traumatized, people automatically keep repeating certain actions, emotions, and sensations related to the trauma. And unlike Charcot, who was primarily interested in measuring and documenting patients' physical symptoms, Janet spent untold hours talking with them, trying to discover what was going on in their minds. Also in contrast to

Charcot, whose research focused on understanding the phenomenon of hysteria, Janet was first and foremost a clinician whose goal was to treat his patients. That is why I studied his case reports in detail and why he became one of my most important teachers.¹⁶

AMNESIA, DISSOCIATION, AND REENACTMENT

Janet was the first to point out the difference between “narrative memory”—the stories people tell about trauma—and traumatic memory itself. One of his case histories was the story of Irène, a young woman who was hospitalized following her mother’s death from tuberculosis.¹⁷ Irène had nursed her mother for many months while continuing to work outside the home to support her alcoholic father and pay for her mother’s medical care. When her mother finally died, Irène—exhausted from stress and lack of sleep—tried for several hours to revive the corpse, calling out to her mother and trying to force medicine down her throat. At one point the lifeless body dropped off the bed while Irène’s drunken father lay passed out nearby. Even after an aunt arrived and started preparing for the burial, Irène’s denial persisted. She had to be persuaded to attend the funeral, and she laughed throughout the service. A few weeks later she was brought to the Salpêtrière, where Janet took over her case.

In addition to amnesia for her mother’s death, Irène suffered from another symptom: Several times a week she would stare, trancelike, at an empty bed, ignore whatever was going on around her, and begin to care for an imaginary person. She meticulously reproduced, rather than remembered, the details of her mother’s death.

Traumatized people simultaneously remember too little and too much. On the one hand, Irène had no conscious memory of her mother’s death—she could not tell the story of what had happened. On the other she was compelled to physically act out the events of her mother’s death. Janet’s term “automatism” conveys the involuntary, unconscious nature of her actions.

Janet treated Irène for several months, mainly with hypnosis. At the end he asked her again about her mother’s death. Irène started to cry and said, “Don’t remind me of those terrible things. . . . My mother was dead and my father was a complete drunk, as always. I had to take care of her dead body all night long. I did a lot of silly things in order to revive her. . . . In the morning I lost my mind.” Not only was Irène able to tell the story, but she had also recovered her emotions: “I feel very sad and abandoned.” Janet now called her memory “complete” because it now was accompanied by the appropriate feelings.

Janet noted significant differences between ordinary and traumatic memory. Traumatic memories are precipitated by specific triggers. In Julian’s case the trigger was his girlfriend’s seductive comments; in Irène’s it was a bed. When one element of a traumatic experience is triggered, other elements are likely to automatically follow.

Traumatic memory is not condensed: It took Irène three to four hours to reenact her story, but when she was finally able to tell what had happened it took less than a minute. The traumatic enactment serves no function. In contrast, ordinary memory is adaptive; our stories are flexible and can be modified to fit the circumstances. Ordinary memory is essentially social; it’s a story that we tell for a purpose: in Irène’s case, to enlist her doctor’s help and comfort; in Julian’s case, to recruit me to join his search for justice and revenge. But there is nothing social about traumatic memory. Julian’s rage at his girlfriend’s remark served no useful purpose. Reenactments are frozen in time, unchanging, and they are always lonely, humiliating, and

alienating experiences.

Janet coined the term “dissociation” to describe the splitting off and isolation of memory imprints that he saw in his patients. He was also prescient about the heavy cost of keeping these traumatic memories at bay. He later wrote that when patients dissociate their traumatic experience, they become “attached to an insurmountable obstacle”:¹⁸ “[U]nable to integrate their traumatic memories, they seem to lose their capacity to assimilate new experiences as well. It is . . . as if their personality has definitely stopped at a certain point, and cannot enlarge any more by the addition or assimilation of new elements.”¹⁹ He predicted that unless they became aware of the split-off elements and integrated them into a story that had happened in the past but was now over, they would experience a slow decline in their personal and professional functioning. This phenomenon has now been well documented in contemporary research.²⁰

Janet discovered that, while it is normal to change and distort one’s memories, people with PTSD are unable to put the actual event, the source of those memories, behind them. Dissociation prevents the trauma from becoming integrated within the conglomerated, ever-shifting stores of autobiographical memory, in essence creating a dual memory system. Normal memory integrates the elements of each experience into the continuous flow of self-experience by a complex process of association; think of a dense but flexible network where each element exerts a subtle influence on many others. But in Julian’s case, the sensations, thoughts, and emotions of the trauma were stored separately as frozen, barely comprehensible fragments. If the problem with PTSD is *dissociation*, the goal of treatment would be *association*: integrating the cut-off elements of the trauma into the ongoing narrative of life, so that the brain can recognize that “that was then, and this is now.”

THE ORIGINS OF THE “TALKING CURE”

Psychoanalysis was born on the wards of the Salpêtrière. In 1885 Freud went to Paris to work with Charcot, and he later named his firstborn son Jean-Martin in Charcot’s honor. In 1893 Freud and his Viennese mentor, Josef Breuer, cited both Charcot and Janet in a brilliant paper on the cause of hysteria. “*Hysterics suffer mainly from reminiscences*,” they proclaim, and go on to note that these memories are not subject to the “wearing away process” of normal memories but “persist for a long time with astonishing freshness.” Nor can traumatized people control when they will emerge: “We must . . . mention another remarkable fact . . . namely, that these memories, unlike other memories of their past lives, are not at the patients’ disposal. On the contrary, *these experiences are completely absent from the patients’ memory when they are in a normal psychical state, or are only present in a highly summary form.*”²¹ (All italics in the quoted passages are Breuer and Freud’s.)

Breuer and Freud believed that traumatic memories were lost to ordinary consciousness either because “circumstances made a reaction impossible,” or because they started during “severely paralyzing affects, such as fright.” In 1896 Freud boldly claimed that “the ultimate cause of hysteria is always the seduction of the child by an adult.”²² Then, faced with his own evidence of an epidemic of abuse in the best families of Vienna—one, he noted, that would implicate his own father—he quickly began to retreat. Psychoanalysis shifted to an emphasis on unconscious wishes and fantasies, though Freud occasionally kept acknowledging the reality of sexual abuse.²³ After the horrors of World War I confronted him with the reality of combat

neuroses, Freud reaffirmed that lack of verbal memory is central in trauma and that, if a person does not remember, he is likely to act out: “[H]e reproduces it not as a memory but as an action; he repeats it, without knowing, of course, that he is repeating, and in the end, we understand that this is his way of remembering.”²⁴

The lasting legacy of Breuer and Freud’s 1893 paper is what we now call the “talking cure”: “[W]e found, to our great surprise, at first, that *each individual hysterical symptom immediately and permanently disappeared when we had succeeded in bringing clearly to light the memory of the event by which it was provoked and in arousing its accompanying affect, and when the patient had described that event in the greatest possible detail and had put the affect into words* (all italics in original). Recollection without affect almost invariably produces no result.”

They explain that unless there is an “energetic reaction” to the traumatic event, the affect “remains attached to the memory” and cannot be discharged. The reaction can be discharged by an action—“from tears to acts of revenge.” “But language serves as a substitute for action; by its help, an affect can be ‘abreacted’ almost as effectively.” “It will now be understood,” they conclude, “how it is that the psychotherapeutic procedure which we have described in these pages has a curative effect. *It brings to an end the operative force . . . which was not abreacted in the first instance* [i.e., at the time of the trauma], *by allowing its strangulated affect to find a way out through speech; and it subjects it to associative correction by introducing it into normal consciousness.*”

Even though psychoanalysis is today in eclipse, the “talking cure” has lived on, and psychologists have generally assumed that telling the trauma story in great detail will help people to leave it behind. That is also a basic premise of cognitive behavioral therapy (CBT), which today is taught in graduate psychology courses around the world.

Although the diagnostic labels have changed, we continue to see patients similar to those described by Charcot, Janet, and Freud. In 1986 my colleagues and I wrote up the case of a woman who had been a cigarette girl at Boston’s Cocoanut Grove nightclub when it burned down in 1942.²⁵ During the 1970s and 1980s she annually reenacted her escape on Newbury Street, a few blocks from the original location, which resulted in her being hospitalized with diagnoses like schizophrenia and bipolar disorder. In 1989 I reported on a Vietnam veteran who yearly staged an “armed robbery” on the exact anniversary of a buddy’s death.²⁶ He would put a finger in his pants pocket, claim that it was a pistol, and tell a shopkeeper to empty his cash register—giving him plenty of time to alert the police. This unconscious attempt to commit “suicide by cop” came to an end after a judge referred the veteran to me for treatment. Once we had dealt with his guilt about his friend’s death, there were no further reenactments.

Such incidents raise a critical question: How can doctors, police officers, or social workers recognize that someone is suffering from traumatic stress as long as he reenacts rather than remembers? How can patients themselves identify the source of their behavior? If their history is not known, they are likely to be labeled as crazy or punished as criminals rather than helped to integrate the past.

TRAUMATIC MEMORY ON TRIAL

At least two dozen men had claimed they were molested by Paul Shanley, and many of them reached civil settlements with the Boston archdiocese. Julian was the only victim who was called

to testify in Shanley's trial. In February 2005 the former priest was found guilty on two counts of raping a child and two counts of assault and battery on a child. He was sentenced to twelve to fifteen years in prison.

In 2007 Shanley's attorney, Robert F. Shaw Jr., filed a motion for a new trial, challenging Shanley's convictions as a miscarriage of justice. Shaw tried to make the case that "repressed memories" were not generally accepted in the scientific community, that the convictions were based on "junk science," and that there had been insufficient testimony about the scientific status of repressed memories before the trial. The appeal was rejected by the original trial judge but two years later was taken up by the Supreme Judicial Court of Massachusetts. Almost one hundred leading psychiatrists and psychologists from around the United States and eight foreign countries signed an amicus curiae brief stating that "repressed memory" has never been shown to exist and that it should not have been admitted as evidence. However, on January 10, 2010, the court unanimously upheld Shanley's conviction with this statement: "In sum, the judge's finding that the lack of scientific testing did not make unreliable the theory that an individual may experience dissociative amnesia was supported in the record. . . . There was no abuse of discretion in the admission of expert testimony on the subject of dissociative amnesia."

In the following chapter I'll talk more about memory and forgetting and about how the debate over repressed memory, which started with Freud, continues to be played out today.

CHAPTER 12

THE UNBEARABLE HEAVINESS OF REMEMBERING

Our bodies are the texts that carry the memories and therefore remembering is no less than reincarnation.

—Katie Cannon

Scientific interest in trauma has fluctuated wildly during the past 150 years. Charcot's death in 1893 and Freud's shift in emphasis to inner conflicts, defenses, and instincts at the root of mental suffering were just part of mainstream medicine's overall loss of interest in the subject. Psychoanalysis rapidly gained in popularity. In 1911 the Boston psychiatrist Morton Prince, who had studied with William James and Pierre Janet, complained that those interested in the effects of trauma were like "clams swamped by the rising tide in Boston Harbor."

This neglect lasted for only a few years, though, because the outbreak of World War in 1914 once again confronted medicine and psychology with hundreds of thousands of men with bizarre psychological symptoms, unexplained medical conditions, and memory loss. The new technology of motion pictures made it possible to film these soldiers, and today on YouTube we can observe their bizarre physical postures, strange verbal utterances, terrified facial expressions, and tics—the physical, embodied expression of trauma: "a memory that is inscribed simultaneously in the mind, as interior images and words, and on the body."¹

Early in the war the British created the diagnosis of "shell shock," which entitled combat veterans to treatment and a disability pension. The alternative, similar, diagnosis was "neurasthenia," for which they received neither treatment nor a pension. It was up to the orientation of the treating physician which diagnosis a soldier received.²

More than a million British soldiers served on the Western Front at any one time. In the first few hours of July 1, 1916 alone, in the Battle of the Somme, the British army suffered 57,470 casualties, including 19,240 dead, the bloodiest day in its history. The historian John Keegan says of their commander, Field Marshal Douglas Haig, whose statue today dominates Whitehall in London, once the center of the British Empire: "In his public manner and private diaries no concern for human suffering was or is discernible." At the Somme "he had sent the flower of British youth to death or mutilation."³

As the war wore on, shell shock increasingly compromised the efficiency of the fighting forces. Caught between taking the suffering of their soldiers seriously and pursuing victory over the Germans, the British General Staff issued General Routine Order Number 2384 in June of 1917, which stated, “In no circumstances whatever will the expression ‘shell shock’ be used verbally or be recorded in any regimental or other casualty report, or any hospital or other medical document.” All soldiers with psychiatric problems were to be given a single diagnosis of “NYDN” (Not Yet Diagnosed, Nervous).⁴ In November 1917 the General Staff denied Charles Samuel Myers, who ran four field hospitals for wounded soldiers, permission to submit a paper on shell shock to the *British Medical Journal*. The Germans were even more punitive and treated shell shock as a character defect, which they managed with a variety of painful treatments, including electroshock.

In 1922 the British government issued the Southborough Report, whose goal was to prevent the diagnosis of shell shock in any future wars and to undermine any more claims for compensation. It suggested the elimination of shell shock from all official nomenclature and insisted that these cases should no more be classified “as a battle casualty than sickness or disease is so regarded.”⁵ The official view was that well-trained troops, properly led, would not suffer from shell shock and that the servicemen who had succumbed to the disorder were undisciplined and unwilling soldiers. While the political storm about the legitimacy of shell shock continued to rage for several more years, reports on how to best treat these cases disappeared from the scientific literature.⁶

In the United States the fate of veterans was also fraught with problems. In 1918, when they returned home from the battlefields of France and Flanders, they had been welcomed as national heroes, just as the soldiers returning from Iraq and Afghanistan are today. In 1924 Congress voted to award them a bonus of \$1.25 for each day they had served overseas, but disbursement was postponed until 1945.

By 1932 the nation was in the middle of the Great Depression, and in May of that year about fifteen thousand unemployed and penniless veterans camped on the Mall in Washington DC to petition for immediate payment of their bonuses. The Senate defeated the bill to move up disbursement by a vote of sixty-two to eighteen. A month later President Hoover ordered the army to clear out the veterans’ encampment. Army chief of staff General Douglas MacArthur commanded the troops, supported by six tanks. Major Dwight D. Eisenhower was the liaison with the Washington police, and Major George Patton was in charge of the cavalry. Soldiers with fixed bayonets charged, hurling tear gas into the crowd of veterans. The next morning the Mall was deserted and the camp was in flames.⁷ The veterans never received their pensions.

While politics and medicine turned their backs on the returning soldiers, the horrors of the war were memorialized in literature and art. In *All Quiet on the Western Front*,⁸ a novel about the war experiences of frontline soldiers by the German writer Erich Maria Remarque, the book’s protagonist, Paul Bäumer, spoke for an entire generation: “I am aware that I, without realizing it, have lost my feelings—I don’t belong here anymore, I live in an alien world. I prefer to be left alone, not disturbed by anybody. They talk too much—I can’t relate to them—they are only busy with superficial things.”⁹ Published in 1929, the novel instantly became an international best seller, with translations in twenty-five languages. The 1930 Hollywood film version won the Academy Award for Best Picture.

But when Hitler came to power a few years later, *All Quiet on the Western Front* was one of

the first “degenerate” books the Nazis burned in the public square in front of Humboldt University in Berlin.¹⁰ Apparently awareness of the devastating effects of war on soldiers’ minds would have constituted a threat to the Nazis’ plunge into another round of insanity.

Denial of the consequences of trauma can wreak havoc with the social fabric of society. The refusal to face the damage caused by the war and the intolerance of “weakness” played an important role in the rise of fascism and militarism around the world in the 1930s. The extortionate war reparations of the Treaty of Versailles further humiliated an already disgraced Germany. German society, in turn, dealt ruthlessly with its own traumatized war veterans, who were treated as inferior creatures. This cascade of humiliations of the powerless set the stage for the ultimate debasement of human rights under the Nazi regime: the moral justification for the strong to vanquish the inferior—the rationale for the ensuing war.

THE NEW FACE OF TRAUMA

The outbreak of World War II prompted Charles Samuel Myers and the American psychiatrist Abram Kardiner to publish the accounts of their work with World War I soldiers and veterans. *Shell Shock in France 1914–1918* (1940)¹¹ and *The Traumatic Neuroses of War* (1941)¹² served as the principal guides for psychiatrists who were treating soldiers in the new conflict who had “war neuroses.” The U.S. war effort was prodigious, and the advances in frontline psychiatry reflected that commitment. Again, YouTube offers a direct window on the past: Hollywood director John Huston’s documentary *Let There Be Light* (1946) shows the predominant treatment for war neuroses at that time: hypnosis.¹³

In Huston’s film, made while he was serving in the Army Signal Corps, the doctors are still patriarchal and the patients are still terrified young men. But they manifest their trauma differently: While the World War I soldiers flail, have facial tics, and collapse with paralyzed bodies, the following generation talks and cringes. Their bodies still keep the score: Their stomachs are upset, their hearts race, and they are overwhelmed by panic. But the trauma did not just affect their bodies. The trance state induced by hypnosis allowed them to find words for the things they had been too afraid to remember: their terror, their survivor’s guilt, and their conflicting loyalties. It also struck me that these soldiers seemed to keep a much tighter lid on their anger and hostility than the younger veterans I’d worked with. Culture shapes the expression of traumatic stress.

The feminist theorist Germaine Greer wrote about the treatment of her father’s PTSD after World War II: “When [the medical officers] examined men exhibiting severe disturbances they almost invariably found the root cause in pre-war experience: the sick men were not first-grade fighting material. . . . The military proposition is [that it is] not war which makes men sick, but that sick men can not fight wars.”¹⁴ It seems unlikely the doctors did her father any good, but Greer’s efforts to come to grips with his suffering undoubtedly helped fuel her exploration of sexual domination in all its ugly manifestations of rape, incest, and domestic violence.

When I worked at the VA, I was puzzled that the vast majority of the patients we saw on the psychiatry service were young, recently discharged Vietnam veterans, while the corridors and elevators that led to the medical departments were filled by old men. Curious about this disparity, I conducted a survey of the World War II veterans in the medical clinics in 1983. The vast majority of them scored positive for PTSD on the rating scales that I administered, but their

treatment focused on medical rather than psychiatric complaints. These vets communicated their distress via stomach cramps and chest pains rather than with nightmares and rage, from which, my research showed, they also suffered. Doctors shape how their patients communicate their distress: When a patient complains about terrifying nightmares and his doctor orders a chest X-ray, the patient realizes that he'll get better care if he focuses on his physical problems. Like my relatives who fought in or were captured during World War II, most of these men were extremely reluctant to share their experiences. My sense was that neither the doctors nor their patients wanted to revisit the war.

However, military and civilian leaders came away from World War II with important lessons that the previous generation had failed to grasp. After the defeat of Nazi Germany and imperial Japan, the United States helped rebuild Europe by means of the Marshall Plan, which formed the economic foundation of the next fifty years of relative peace. At home, the GI Bill provided millions of veterans with educations and home mortgages, which promoted general economic well-being and created a broad-based, well-educated middle class. The armed forces led the nation in racial integration and opportunity. The Veterans Administration built facilities nationwide to help combat veterans with their health care. Still, with all this thoughtful attention to the returning veterans, the psychological scars of war went unrecognized, and traumatic neuroses disappeared entirely from official psychiatric nomenclature. The last scientific writing on combat trauma after World War II appeared in 1947.¹⁵

TRAUMA REDISCOVERED

As I noted earlier, when I started to work with Vietnam veterans, there was not a single book on war trauma in the library of the VA, but the Vietnam War inspired numerous studies, the formation of scholarly organizations, and the inclusion of a trauma diagnosis, PTSD, in the professional literature. At the same time, interest in trauma was exploding in the general public.

In 1974 Freedman and Kaplan's *Comprehensive Textbook of Psychiatry* stated that "incest is extremely rare, and does not occur in more than 1 out of 1.1 million people."¹⁶ As we have seen in chapter 2 this authoritative textbook then went on to extol the possible benefits of incest: "Such incestuous activity diminishes the subject's chance of psychosis and allows for a better adjustment to the external world. . . . The vast majority of them were none the worse for the experience."

How misguided those statements were became obvious when the ascendant feminist movement, combined with awareness of trauma in returning combat veterans, emboldened tens of thousands of survivors of childhood sexual abuse, domestic abuse, and rape to come forward. Consciousness-raising groups and survivor groups were formed, and numerous popular books, including *The Courage to Heal* (1988), a best-selling self-help book for survivors of incest, and Judith Herman's book *Trauma and Recovery* (1992), discussed the stages of treatment and recovery in great detail.

Cautioned by history, I began to wonder if we were headed toward another backlash like those of 1895, 1917, and 1947 against acknowledging the reality of trauma. That proved to be the case, for by the early 1990s articles had started to appear in many leading newspapers and magazines in the United States and in Europe about a so-called False Memory Syndrome in which psychiatric patients supposedly manufactured elaborate false memories of sexual abuse,

which they then claimed had lain dormant for many years before being recovered.

What was striking about these articles was the certainty with which they stated that there was no evidence that people remember trauma any differently than they do ordinary events. I vividly recall a phone call from a well-known newsweekly in London, telling me that they planned to publish an article about traumatic memory in their next issue and asking me whether I had any comments on the subject. I was quite enthusiastic about their question and told them that memory loss for traumatic events had first been studied in England well over a century earlier. I mentioned John Eric Erichsen and Frederic Myers's work on railway accidents in the 1860s and 1870s and Charles Samuel Myers's and W. H. R. Rivers's extensive studies of memory problems in combat soldiers of World War I. I also suggested they look at an article published in *The Lancet* in 1944, which described the aftermath of the rescue of the entire British army from the beaches of Dunkirk in 1940. More than 10 percent of the soldiers who were studied had suffered from major memory loss after the evacuation.¹⁷ The following week, the magazine told its readers that there was no evidence whatsoever that people sometimes lose some or all memory for traumatic events.

The issue of delayed recall of trauma was not particularly controversial when Myers and Kardiner first described this phenomenon in their books on combat neuroses in World War I; when major memory loss was observed after the evacuation from Dunkirk; or when I wrote about Vietnam veterans and the survivor of the Cocoanut Grove nightclub fire. However, during the 1980s and early 1990s, as similar memory problems began to be documented in women and children in the context of domestic abuse, the efforts of abuse victims to seek justice against their alleged perpetrators moved the issue from science into politics and law. This, in turn, became the context for the pedophile scandals in the Catholic Church, in which memory experts were pitted against one another in courtrooms across the United States and later in Europe and Australia.

Experts testifying on behalf of the Church claimed that memories of childhood sexual abuse were unreliable at best and that the claims being made by alleged victims more likely resulted from false memories implanted in their minds by therapists who were oversympathetic, credulous, or driven by their own agendas. During this period I examined more than fifty adults who, like Julian, remembered having been abused by priests. Their claims were denied in about half the cases.

THE SCIENCE OF REPRESSED MEMORY

There have in fact been hundreds of scientific publications spanning well over a century documenting how the memory of trauma can be repressed, only to resurface years or decades later.¹⁸ Memory loss has been reported in people who have experienced natural disasters, accidents, war trauma, kidnapping, torture, concentration camps, and physical and sexual abuse. Total memory loss is most common in childhood sexual abuse, with incidence ranging from 19 percent to 38 percent.¹⁹ This issue is not particularly controversial: As early as 1980 the DSM-III recognized the existence of memory loss for traumatic events in the diagnostic criteria for dissociative amnesia: "an inability to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by normal forgetfulness." Memory loss has been part of the criteria for PTSD since that diagnosis was first introduced.

One of the most interesting studies of repressed memory was conducted by Dr. Linda Meyer

Williams, which began when she was a graduate student in sociology at the University of Pennsylvania in the early 1970s. Williams interviewed 206 girls between the ages of ten and twelve who had been admitted to a hospital emergency room following sexual abuse. Their laboratory tests, as well as the interviews with the children and their parents, were kept in the hospital's medical records. Seventeen years later Williams was able to track down 136 of the children, now adults, with whom she conducted extensive follow-up interviews.²⁰ More than a third of the women (38 percent) did not recall the abuse that was documented in their medical records, while only fifteen women (12 percent) said that they had never been abused as children. More than two-thirds (68 percent) reported other incidents of childhood sexual abuse. Women who were younger at the time of the incident and those who were molested by someone they knew were more likely to have forgotten their abuse.

This study also examined the reliability of recovered memories. One in ten women (16 percent of those who recalled the abuse) reported that they had forgotten it at some time in the past but later remembered that it had happened. In comparison with the women who had always remembered their molestation, those with a prior period of forgetting were younger at the time of their abuse and were less likely to have received support from their mothers. Williams also determined that the recovered memories were approximately as accurate as those that had never been lost: All the women's memories were accurate for the central facts of the incident, but none of their stories precisely matched every detail documented in their charts.²¹

Williams's findings are supported by recent neuroscience research that shows that memories that are retrieved tend to return to the memory bank with modifications.²² As long as a memory is inaccessible, the mind is unable to change it. But as soon as a story starts being told, particularly if it is told repeatedly, it changes—the act of telling itself changes the tale. The mind cannot help but make meaning out of what it knows, and the meaning we make of our lives changes how and what we remember.

Given the wealth of evidence that trauma can be forgotten and resurface years later, why did nearly one hundred reputable memory scientists from several different countries throw the weight of their reputations behind the appeal to overturn Father Shanley's conviction, claiming that "repressed memories" were based on "junk science"? Because memory loss and delayed recall of traumatic experiences had never been documented in the laboratory, some cognitive scientists adamantly denied that these phenomena existed²³ or that retrieved traumatic memories could be accurate.²⁴ However, what doctors encounter in emergency rooms, on psychiatric wards, and on the battlefield is necessarily quite different from what scientists observe in their safe and well-organized laboratories.

Consider what is known as the "lost in the mall" experiment, for example. Academic researchers have shown that it is relatively easy to implant memories of events that never took place, such as having been lost in a shopping mall as a child.²⁵ About 25 percent of subjects in these studies later "recall" that they were frightened and even fill in missing details. But such recollections involve none of the visceral terror that a lost child would actually experience.

Another line of research documented the unreliability of eyewitness testimony. Subjects might be shown a video of a car driving down a street and asked afterward if they saw a stop sign or a traffic light; children might be asked to recall what a male visitor to their classroom had been wearing. Other eyewitness experiments demonstrated that the questions witnesses were asked could alter what they claimed to remember. These studies were valuable in bringing many

police and courtroom practices into question, but they have little relevance to traumatic memory.

The fundamental problem is this: Events that take place in the laboratory cannot be considered equivalent to the conditions under which traumatic memories are created. The terror and helplessness associated with PTSD simply can't be induced *de novo* in such a setting. We can study the effects of existing traumas in the lab, as in our script-driven imaging studies of flashbacks, but the original imprint of trauma cannot be laid down there. Dr. Roger Pitman conducted a study at Harvard in which he showed college students a film called *Faces of Death*, which contained newsreel footage of violent deaths and executions. This movie, now widely banned, is as extreme as any institutional review board would allow, but it did not cause Pitman's normal volunteers to develop symptoms of PTSD. If you want to study traumatic memory, you have to study the memories of people who have actually been traumatized.

Interestingly, once the excitement and profitability of courtroom testimony diminished, the "scientific" controversy disappeared as well, and clinicians were left to deal with the wreckage of traumatic memory.

NORMAL VERSUS TRAUMATIC MEMORY

In 1994 I and my colleagues at Massachusetts General Hospital decided to undertake a systematic study comparing how people recall benign experiences and horrific ones. We placed advertisements in local newspapers, in laundromats, and on student union bulletin boards that said: "Has something terrible happened to you that you cannot get out of your mind? Call 727-5500; we will pay you \$10.00 for participating in this study." In response to our first ad seventy-six volunteers showed up.²⁶

After we introduced ourselves, we started off by asking each participant: "Can you tell us about an event in your life that you think you will always remember but that is not traumatic?" One participant lit up and said, "The day that my daughter was born"; others mentioned their wedding day, playing on a winning sports team, or being valedictorian at their high school graduation. Then we asked them to focus on specific sensory details of those events, such as: "Are you ever somewhere and suddenly have a vivid image of what your husband looked like on your wedding day?" The answers were always negative. "How about what your husband's body felt like on your wedding night?" (We got some odd looks on that one.) We continued: "Do you ever have a vivid, precise recollection of the speech you gave as a valedictorian?" "Do you ever have intense sensations recalling the birth of your first child?" The replies were all in the negative.

Then we asked them about the traumas that had brought them into the study—many of them rapes. "Do you ever suddenly remember how your rapist smelled?" we asked, and, "Do you ever experience the same physical sensations you had when you were raped?" Such questions precipitated powerful emotional responses: "That is why I cannot go to parties anymore, because the smell of alcohol on somebody's breath makes me feel like I am being raped all over again" or "I can no longer make love to my husband, because when he touches me in a particular way I feel like I am being raped again."

There were two major differences between how people talked about memories of positive versus traumatic experiences: (1) how the memories were organized, and (2) their physical reactions to them. Weddings, births, and graduations were recalled as events from the past,

stories with a beginning, a middle, and an end. Nobody said that there were periods when they'd completely forgotten any of these events.

In contrast, the traumatic memories were disorganized. Our subjects remembered some details all too clearly (the smell of the rapist, the gash in the forehead of a dead child) but could not recall the sequence of events or other vital details (the first person who arrived to help, whether an ambulance or a police car took them to the hospital).

We also asked the participants how they recalled their trauma at three points in time: right after it happened; when they were most troubled by their symptoms; and during the week before the study. All of our traumatized participants said that they had not been able to tell anybody precisely what had happened immediately following the event. (This will not surprise anyone who has worked in an emergency room or ambulance service: People brought in after a car accident in which a child or a friend has been killed sit in stunned silence, dumbfounded by terror.) Almost all had repeated flashbacks: They felt overwhelmed by images, sounds, sensations, and emotions. As time went on, even more sensory details and feelings were activated, but most participants also started to be able to make some sense out of them. They began to "know" what had happened and to be able to tell the story to other people, a story that we call "the memory of the trauma."

Gradually the images and flashbacks decreased in frequency, but the greatest improvement was in the participants' ability to piece together the details and sequence of the event. By the time of our study, 85 percent of them were able to tell a coherent story, with a beginning, a middle, and an end. Only a few were missing significant details. We noted that the five who said they had been abused as children had the most fragmented narratives—their memories still arrived as images, physical sensations, and intense emotions.

In essence, our study confirmed the dual memory system that Janet and his colleagues at the Salpêtrière had described more than a hundred years earlier: Traumatic memories are fundamentally different from the stories we tell about the past. They are dissociated: The different sensations that entered the brain at the time of the trauma are not properly assembled into a story, a piece of autobiography.

Perhaps the most important finding in our study was that remembering the trauma with all its associated affects, does not, as Breuer and Freud claimed back in 1893, necessarily resolve it. Our research did not support the idea that language can substitute for action. Most of our study participants could tell a coherent story and also experience the pain associated with those stories, but they kept being haunted by unbearable images and physical sensations. Research in contemporary exposure treatment, a staple of cognitive behavioral therapy, has similarly disappointing results: The majority of patients treated with that method continue to have serious PTSD symptoms three months after the end of treatment.²⁷ As we will see, finding words to describe what has happened to you can be transformative, but it does not always abolish flashbacks or improve concentration, stimulate vital involvement in your life or reduce hypersensitivity to disappointments and perceived injuries.

LISTENING TO SURVIVORS

Nobody wants to remember trauma. In that regard society is no different from the victims themselves. We all want to live in a world that is safe, manageable, and predictable, and victims

remind us that this is not always the case. In order to understand trauma, we have to overcome our natural reluctance to confront that reality and cultivate the courage to listen to the testimonies of survivors.

In his book *Holocaust Testimonies: The Ruins of Memory* (1991), Lawrence Langer writes about his work in the Fortunoff Video Archive at Yale University: “Listening to accounts of Holocaust experience, we unearth a mosaic of evidence that constantly vanishes into bottomless layers of incompleteness.²⁸ We wrestle with the beginnings of a permanently unfinished tale, full of incomplete intervals, faced by the spectacle of a faltering witness often reduced to a distressed silence by the overwhelming solicitations of deep memory.” As one of his witnesses says: “If you were not there, it’s difficult to describe and say how it was. How men function under such stress is one thing, and then how you communicate and express that to somebody who never knew that such a degree of brutality exists seems like a fantasy.”

Another survivor, Charlotte Delbo, describes her dual existence after Auschwitz: “[T]he ‘self’ who was in the camp isn’t me, isn’t the person who is here, opposite you. No, it’s too unbelievable. And everything that happened to this other ‘self,’ the one from Auschwitz, doesn’t touch me now, *me*, doesn’t concern me, so distinct are deep memory and common memory. . . . Without this split, I wouldn’t have been able to come back to life.”²⁹ She comments that even words have a dual meaning: “Otherwise, someone [in the camps] who has been tormented by thirst for weeks would never again be able to say: ‘I’m thirsty. Let’s make a cup of tea.’ Thirst [after the war] has once more become a currently used term. On the other hand, if I dream of the thirst I felt in Birkenau [the extermination facilities in Auschwitz], I see myself as I was then, haggard, bereft of reason, tottering.”³⁰

Langer hauntingly concludes, “Who can find a proper grave for such damaged mosaics of the mind, where they may rest in pieces? Life goes on, but in two temporal directions at once, the future unable to escape the grip of a memory laden with grief.”³¹

The essence of trauma is that it is overwhelming, unbelievable, and unbearable. Each patient demands that we suspend our sense of what is normal and accept that we are dealing with a dual reality: the reality of a relatively secure and predictable present that lives side by side with a ruinous, ever-present past.

NANCY’S STORY

Few patients have put that duality into words as vividly as Nancy, the director of nursing in a Midwestern hospital who came to Boston several times to consult with me. Shortly after the birth of her third child, Nancy underwent what is usually routine outpatient surgery, a laparoscopic tubal ligation in which the fallopian tubes are cauterized to prevent future pregnancies. However, because she was given insufficient anesthesia, she awakened after the operation began and remained aware nearly to the end, at times falling into what she called “a light sleep” or “dream,” at times experiencing the full horror of her situation. She was unable to alert the OR team by moving or crying out because she had been given a standard muscle relaxant to prevent muscle contractions during surgery.

Some degree of “anesthesia awareness” is now estimated to occur in approximately thirty thousand surgical patients in the United States every year,³² and I had previously testified on behalf of several people who were traumatized by the experience. Nancy, however, did not want

to sue her surgeon or anesthetist. Her entire focus was on bringing the reality of her trauma to consciousness so that she could free herself from its intrusions into her everyday life. I'd like to end this chapter by sharing several passages from a remarkable series of e-mails in which she described her grueling journey to recovery.

Initially Nancy did not know what had happened to her. "When we went home I was still in a daze, doing the typical things of running a household, yet not really feeling that I was alive or that I was real. I had trouble sleeping that night. For days, I remained in my own little disconnected world. I could not use a hair dryer, toaster, stove or anything that warmed up. I could not concentrate on what people were doing or telling me. I just didn't care. I was increasingly anxious. I slept less and less. I knew I was behaving strangely and kept trying to understand what was frightening me so.

"On the fourth night after the surgery, around 3 AM, I started to realize that the dream I had been living all this time related to conversations I had heard in the operating room. I was suddenly transported back into the OR and could feel my paralyzed body being burned. I was engulfed in a world of terror and horror." From then on, Nancy says, memories and flashbacks erupted into her life.

"It was as if the door was pushed open slightly, allowing the intrusion. There was a mixture of curiosity and avoidance. I continued to have irrational fears. I was deathly afraid of sleep; I experienced a sense of terror when seeing the color blue. My husband, unfortunately, was bearing the brunt of my illness. I would lash out at him when I truly did not intend to. I was sleeping at most 2 to 3 hours, and my daytime was filled with hours of flashbacks. I remained chronically hyperalert, feeling threatened by my own thoughts and wanting to escape them. I lost 23 pounds in 3 weeks. People kept commenting on how great I looked.

"I began to think about dying. I developed a very distorted view of my life in which all my successes diminished and old failures were amplified. I was hurting my husband and found that I could not protect my children from my rage.

"Three weeks after the surgery I went back to work at the hospital. The first time I saw somebody in a surgical scrubsuit was in the elevator. I wanted to get out immediately, but of course I could not. I then had this irrational urge to clobber him, which I contained with considerable effort. This episode triggered increasing flashbacks, terror and dissociation. I cried all the way home from work. After that, I became adept at avoidance. I never set foot in an elevator, I never went to the cafeteria, I avoided the surgical floors."

Gradually Nancy was able to piece together her flashbacks and create an understandable, if horrifying, memory of her surgery. She recalled the reassurances of the OR nurses and a brief period of sleep after the anesthesia was started. Then she remembered how she began to awaken.

"The entire team was laughing about an affair one of the nurses was having. This coincided with the first surgical incision. I felt the stab of the scalpel, then the cutting, then the warm blood flowing over my skin. I tried desperately to move, to speak, but my body didn't work. I couldn't understand this. I felt a deeper pain as the layers of muscle pulled apart under their own tension. I knew I wasn't supposed to feel this."

Nancy next recalls someone "rummaging around" in her belly and identified this as the laparoscopic instruments being placed. She felt her left tube being clamped. "Then suddenly there was an intense searing, burning pain. I tried to escape, but the cautery tip pursued me, relentlessly burning through. There simply are no words to describe the terror of this experience. This pain was not in the same realm as other pain I had known and conquered, like a broken

bone or natural childbirth. It begins as extreme pain, then continues relentlessly as it slowly burns through the tube. The pain of being cut with the scalpel pales beside this giant.”

“Then, abruptly, the right tube felt the initial impact of the burning tip. When I heard them laugh, I briefly lost track of where I was. I believed I was in a torture chamber, and I could not understand why they were torturing me without even asking for information. . . . My world narrowed to a small sphere around the operating table. There was no sense of time, no past, and no future. There was only pain, terror, and horror. I felt isolated from all humanity, profoundly alone in spite of the people surrounding me. The sphere was closing in on me.

“In my agony, I must have made some movement. I heard the nurse anesthetist tell the anesthesiologist that I was ‘light.’ He ordered more meds and then quietly said, ‘There is no need to put any of this in the chart.’ That is the last memory I recalled.”

In her later e-mails to me, Nancy struggled to capture the existential reality of trauma.

“I want to tell you what a flashback is like. It is as if time is folded or warped, so that the past and present merge, as if I were physically transported into the past. Symbols related to the original trauma, however benign in reality, are thoroughly contaminated and so become objects to be hated, feared, destroyed if possible, avoided if not. For example, an iron in any form—a toy, a clothes iron, a curling iron, came to be seen as an instrument of torture. Each encounter with a scrub suit left me disassociated, confused, physically ill and at times consciously angry.

“My marriage is slowly falling apart—my husband came to represent the heartless laughing people [the surgical team] who hurt me. I exist in a dual state. A pervasive numbness covers me with a blanket; and yet the touch of a small child pulls me back to the world. For a moment, I am present and a part of life, not just an observer.

“Interestingly, I function very well at work, and I am constantly given positive feedback. Life proceeds with its own sense of falsity.

“There is a strangeness, bizarreness to this dual existence. I tire of it. Yet I cannot give up on life, and I cannot delude myself into believing that if I ignore the beast it will go away. I’ve thought many times that I had recalled all the events around the surgery, only to find a new one.

“There are so many pieces of that 45 minutes of my life that remain unknown. My memories are still incomplete and fragmented, but I no longer think that I need to know everything in order to understand what happened.

“When the fear subsides I realize I can handle it, but a part of me doubts that I can. The pull to the past is strong; it is the dark side of my life; and I must dwell there from time to time. The struggle may also be a way to know that I survive—a re-playing of the fight to survive—which apparently I won, but cannot own.”

An early sign of recovery came when Nancy needed another, more extensive operation. She chose a Boston hospital for the surgery, asked for a preoperative meeting with the surgeons and the anesthesiologist specifically to discuss her prior experience, and requested that I be allowed to join them in the operating room. For the first time in many years I put on a surgical scrub suit and accompanied her into the OR while the anesthesia was induced. This time she woke up to a feeling of safety.

Two years later I wrote Nancy asking her permission to use her account of anesthesia awareness in this chapter. In her reply she updated me on the progress of her recovery: “I wish I could say that the surgery to which you were so kind to accompany me ended my suffering. That sadly was not the case. After about six more months I made two choices that proved provident. I left my CBT therapist to work with a psychodynamic psychiatrist and I joined a Pilates class.

“In our last month of therapy, I asked my psychiatrist why he did not try to fix me as all other therapists had attempted, yet had failed. He told me that he assumed, given what I had been able to accomplish with my children and career, that I had sufficient resiliency to heal myself, if he created a holding environment for me to do so. This was an hour each week that became a refuge where I could unravel the mystery of how I had become so damaged and then re-construct a sense of myself that was whole, not fragmented, peaceful, not tormented. Through Pilates, I found a stronger physical core, as well as a community of women who willingly gave acceptance and social support that had been distant in my life since the trauma. This combination of core strengthening—psychological, social, and physical—created a sense of personal safety and mastery, relegating my memories to the distant past, allowing the present and future to emerge.”

PART FIVE

PATHS TO RECOVERY

CHAPTER 13

HEALING FROM TRAUMA: OWNING YOUR SELF

I don't go to therapy to find out if I'm a freak
I go and I find the one and only answer every week
And when I talk about therapy, I know what people think
That it only makes you selfish and in love with your shrink
But, oh how I loved everybody else
When I finally got to talk so much about myself

—Dar Williams, *What Do You Hear in These Sounds*

Nobody can “treat” a war, or abuse, rape, molestation, or any other horrendous event, for that matter; what has happened cannot be undone. But what *can* be dealt with are the imprints of the trauma on body, mind, and soul: the crushing sensations in your chest that you may label as anxiety or depression; the fear of losing control; always being on alert for danger or rejection; the self-loathing; the nightmares and flashbacks; the fog that keeps you from staying on task and from engaging fully in what you are doing; being unable to fully open your heart to another human being.

Trauma robs you of the feeling that you are in charge of yourself, of what I will call self-leadership in the chapters to come.¹ The challenge of recovery is to reestablish ownership of your body and your mind—of your self. This means feeling free to know what you know and to feel what you feel without becoming overwhelmed, enraged, ashamed, or collapsed. For most people this involves (1) finding a way to become calm and focused, (2) learning to maintain that calm in response to images, thoughts, sounds, or physical sensations that remind you of the past, (3) finding a way to be fully alive in the present and engaged with the people around you, (4) not having to keep secrets from yourself, including secrets about the ways that you have managed to survive.

These goals are not steps to be achieved, one by one, in some fixed sequence. They overlap, and some may be more difficult than others, depending on individual circumstances. In each of the chapters that follow, I'll talk about specific methods or approaches to accomplish them. I have tried to make these chapters useful both to trauma survivors and to the therapists who are treating them. People under temporary stress may also find them useful. I've used every one of

these methods extensively to treat my patients, and I have also experienced them myself. Some people get better using just one of these methods, but most are helped by different approaches at different stages of their recovery.

I have done scientific studies of many of the treatments I describe here and have published the research findings in peer-reviewed scientific journals.² My aim in this chapter is to provide an overview of underlying principles, a preview of what's to come, and some brief comments on methods I don't cover in depth later on.

A NEW FOCUS FOR RECOVERY

When we talk about trauma, we often start with a story or a question: “What happened during the war?” “Were you ever molested?” “Let me tell you about that accident or that rape,” or “Was anybody in your family a problem drinker?” However, trauma is much more than a story about something that happened long ago. The emotions and physical sensations that were imprinted during the trauma are experienced not as memories but as disruptive physical reactions in the present.

In order to regain control over your self, you need to revisit the trauma: Sooner or later you need to confront what has happened to you, but only after you feel safe and will not be retraumatized by it. The first order of business is to find ways to cope with feeling overwhelmed by the sensations and emotions associated with the past.

As the previous parts of this book have shown, the engines of posttraumatic reactions are located in the emotional brain. In contrast with the rational brain, which expresses itself in thoughts, the emotional brain manifests itself in physical reactions: gut-wrenching sensations, heart pounding, breathing becoming fast and shallow, feelings of heartbreak, speaking with an uptight and reedy voice, and the characteristic body movements that signify collapse, rigidity, rage, or defensiveness.

Why can't we just be reasonable? And can understanding help? The rational, executive brain is good at helping us understand where feelings come from (as in: “I get scared when I get close to a guy because my father molested me” or “I have trouble expressing my love toward my son because I feel guilty about having killed a child in Iraq”). However, the rational brain cannot *abolish* emotions, sensations, or thoughts (such as living with a low-level sense of threat or feeling that you are fundamentally a terrible person, even though you rationally know that you are not to blame for having been raped). Understanding *why* you feel a certain way does not change *how* you feel. But it can keep you from surrendering to intense reactions (for example, assaulting a boss who reminds you of a perpetrator, breaking up with a lover at your first disagreement, or jumping into the arms of a stranger). However, the more frazzled we are, the more our rational brains take a backseat to our emotions.³

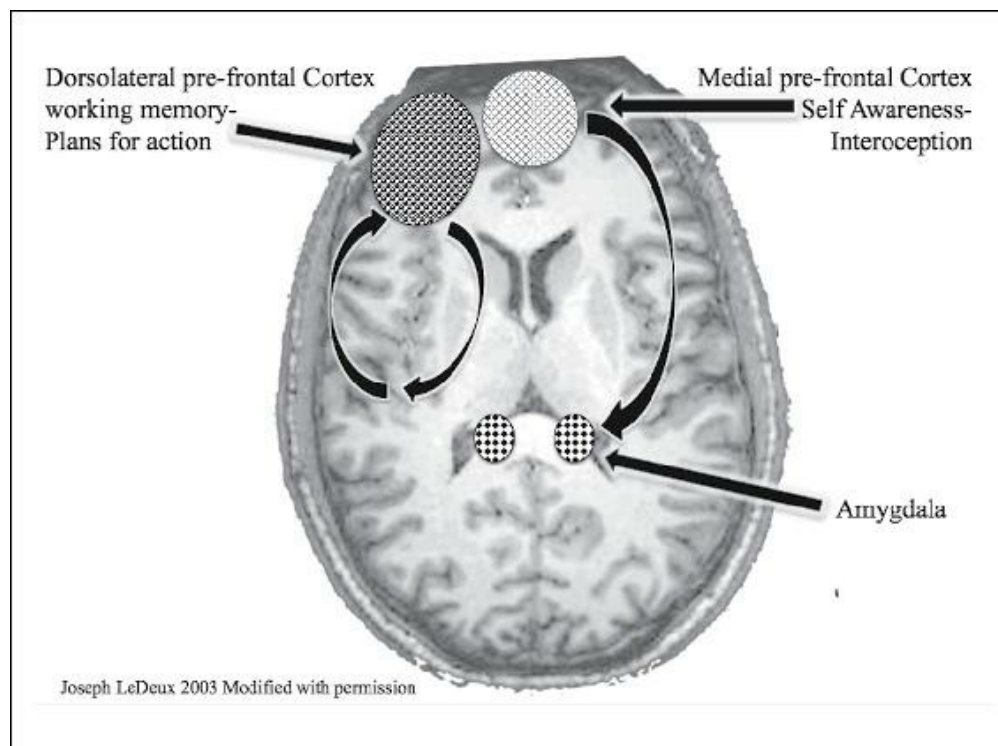
LIMBIC SYSTEM THERAPY

The fundamental issue in resolving traumatic stress is to restore the proper balance between the rational and emotional brains, so that you can feel in charge of how you respond and how you conduct your life. When we're triggered into states of hyper- or hypoarousal, we are pushed outside our “window of tolerance”—the range of optimal functioning.⁴ We become reactive and

disorganized; our filters stop working—sounds and lights bother us, unwanted images from the past intrude on our minds, and we panic or fly into rages. If we're shut down, we feel numb in body and mind; our thinking becomes sluggish and we have trouble getting out of our chairs.

As long as people are either hyperaroused or shut down, they cannot learn from experience. Even if they manage to stay in control, they become so uptight (Alcoholics Anonymous calls this “white-knuckle sobriety”) that they are inflexible, stubborn, and depressed. Recovery from trauma involves the restoration of executive functioning and, with it, self-confidence and the capacity for playfulness and creativity.

If we want to change posttraumatic reactions, we have to access the emotional brain and do “limbic system therapy”: repairing faulty alarm systems and restoring the emotional brain to its ordinary job of being a quiet background presence that takes care of the housekeeping of the body, ensuring that you eat, sleep, connect with intimate partners, protect your children, and defend against danger.



DRAWING BY LICIA SKY

Accessing the emotional brain. The rational, analyzing part of the brain, centered on the dorsolateral prefrontal cortex, has no direct connections with the emotional brain, where most imprints of trauma reside, but the medial prefrontal cortex, the center of self-awareness, does.

The neuroscientist Joseph LeDoux and his colleagues have shown that the only way we can consciously access the emotional brain is through self-awareness, i.e. by activating the medial prefrontal cortex, the part of the brain that notices what is going on inside us and thus allows us to feel what we're feeling.⁵ (The technical term for this is “interoception”—Latin for “looking inside.”) Most of our conscious brain is dedicated to focusing on the outside world: getting along with others and making plans for the future. However, that does not help us manage ourselves.

Neuroscience research shows that the only way we can change the way we feel is by becoming aware of our *inner* experience and learning to befriend what is going on inside ourselves.

BEFRIENDING THE EMOTIONAL BRAIN

1. DEALING WITH HYPERAROUSAL

Over the past few decades mainstream psychiatry has focused on using drugs to change the way we feel, and this has become the accepted way to deal with hyper- and hypoarousal. I will discuss drugs later in this chapter, but first I need to stress the fact that we have a host of inbuilt skills to keep us on an even keel. In chapter 5 we saw how emotions are registered in the body. Some 80 percent of the fibers of the vagus nerve (which connects the brain with many internal organs) are afferent; that is, they run from the body into the brain.⁶ This means that we can directly train our arousal system by the way we breathe, chant, and move, a principle that has been utilized since time immemorial in places like China and India, and in every religious practice that I know of, but that is suspiciously eyed as “alternative” in mainstream culture.

In research supported by the National Institutes of Health, my colleagues and I have shown that ten weeks of yoga practice markedly reduced the PTSD symptoms of patients who had failed to respond to any medication or to any other treatment.⁷ (I will discuss yoga in chapter 16.) Neurofeedback, the topic of chapter 19, also can be particularly effective for children and adults who are so hyperaroused or shut down that they have trouble focusing and prioritizing.⁸

Learning how to breathe calmly and remaining in a state of relative physical relaxation, even while accessing painful and horrifying memories, is an essential tool for recovery.⁹ When you deliberately take a few slow, deep breaths, you will notice the effects of the parasympathetic brake on your arousal (as explained in chapter 5). The more you stay focused on your breathing, the more you will benefit, particularly if you pay attention until the very end of the out breath and then wait a moment before you inhale again. As you continue to breathe and notice the air moving in and out of your lungs you may think about the role that oxygen plays in nourishing your body and bathing your tissues with the energy you need to feel alive and engaged. Chapter 16 documents the full-body effects of this simple practice.

Since emotional regulation is the critical issue in managing the effects of trauma and neglect, it would make an enormous difference if teachers, army sergeants, foster parents, and mental health professionals were thoroughly schooled in emotional-regulation techniques. Right now this still is mainly the domain of preschool and kindergarten teachers, who deal with immature brains and impulsive behavior on a daily basis and who are often very adept at managing them.¹⁰

Mainstream Western psychiatric and psychological healing traditions have paid scant attention to self-management. In contrast to the Western reliance on drugs and verbal therapies, other traditions from around the world rely on mindfulness, movement, rhythms, and action. Yoga in India, tai chi and qigong in China, and rhythmical drumming throughout Africa are just a few examples. The cultures of Japan and the Korean peninsula have spawned martial arts, which focus on the cultivation of purposeful movement and being centered in the present, abilities that are damaged in traumatized individuals. Aikido, judo, tae kwon do, kendo, and jujitsu, as well as capoeira from Brazil, are examples. These techniques all involve physical movement, breathing, and meditation. Aside from yoga, few of these popular non-Western healing traditions have been systematically studied for the treatment of PTSD.

2. NO MIND WITHOUT MINDFULNESS

At the core of recovery is self-awareness. The most important phrases in trauma therapy are “Notice that” and “What happens next?” Traumatized people live with seemingly unbearable sensations: They feel heartbroken and suffer from intolerable sensations in the pit of their stomach or tightness in their chest. Yet avoiding feeling these sensations in our bodies increases our vulnerability to being overwhelmed by them.

Body awareness puts us in touch with our inner world, the landscape of our organism. Simply noticing our annoyance, nervousness, or anxiety immediately helps us shift our perspective and opens up new options other than our automatic, habitual reactions. Mindfulness puts us in touch with the transitory nature of our feelings and perceptions. When we pay focused attention to our bodily sensations, we can recognize the ebb and flow of our emotions and, with that, increase our control over them.

Traumatized people are often afraid of feeling. It is not so much the perpetrators (who, hopefully, are no longer around to hurt them) but their own physical sensations that now are the enemy. Apprehension about being hijacked by uncomfortable sensations keeps the body frozen and the mind shut. Even though the trauma is a thing of the past, the emotional brain keeps generating sensations that make the sufferer feel scared and helpless. It’s not surprising that so many trauma survivors are compulsive eaters and drinkers, fear making love, and avoid many social activities: Their sensory world is largely off limits.

In order to change you need to open yourself to your inner experience. The first step is to allow your mind to focus on your sensations and notice how, in contrast to the timeless, ever-present experience of trauma, physical sensations are transient and respond to slight shifts in body position, changes in breathing, and shifts in thinking. Once you pay attention to your physical sensations, the next step is to label them, as in “When I feel anxious, I feel a crushing sensation in my chest.” I may then say to a patient: “Focus on that sensation and see how it changes when you take a deep breath out, or when you tap your chest just below your collarbone, or when you allow yourself to cry.” Practicing mindfulness calms down the sympathetic nervous system, so that you are less likely to be thrown into fight-or-flight.¹¹ Learning to observe and tolerate your physical reactions is a prerequisite for safely revisiting the past. If you cannot tolerate what you are feeling right now, opening up the past will only compound the misery and retraumatize you further.¹²

We can tolerate a great deal of discomfort as long as we stay conscious of the fact that the body’s commotions constantly shift. One moment your chest tightens, but after you take a deep breath and exhale, that feeling softens and you may observe something else, perhaps a tension in your shoulder. Now you can start exploring what happens when you take a deeper breath and notice how your rib cage expands.¹³ Once you feel calmer and more curious, you can go back to that sensation in your shoulder. You should not be surprised if a memory spontaneously arises in which that shoulder was somehow involved.

A further step is to observe the interplay between your thoughts and your physical sensations. How are particular thoughts registered in your body? (Do thoughts like “My father loves me” or “my girlfriend dumped me” produce different sensations?) Becoming aware of how your body organizes particular emotions or memories opens up the possibility of releasing sensations and impulses you once blocked in order to survive.¹⁴ In chapter 20, on the benefits of theater, I’ll describe in more detail how this works.

Jon Kabat-Zinn, one of the pioneers in mind-body medicine, founded the Mindfulness-Based Stress Reduction (MBSR) program at the University of Massachusetts Medical Center in 1979, and his method has been thoroughly studied for more than three decades. As he describes mindfulness, “One way to think of this process of transformation is to think of mindfulness as a lens, taking the scattered and reactive energies of your mind and focusing them into a coherent source of energy for living, for problem solving, for healing.”¹⁵

Mindfulness has been shown to have a positive effect on numerous psychiatric, psychosomatic, and stress-related symptoms, including depression and chronic pain.¹⁶ It has broad effects on physical health, including improvements in immune response, blood pressure, and cortisol levels.¹⁷ It has also been shown to activate the brain regions involved in emotional regulation¹⁸ and to lead to changes in the regions related to body awareness and fear.¹⁹ Research by my Harvard colleagues Britta Hölzel and Sara Lazar has shown that practicing mindfulness even decreases the activity of the brain’s smoke detector, the amygdala, and thus decreases reactivity to potential triggers.²⁰

3. RELATIONSHIPS

Study after study shows that having a good support network constitutes the single most powerful protection against becoming traumatized. Safety and terror are incompatible. When we are terrified, nothing calms us down like the reassuring voice or the firm embrace of someone we trust. Frightened adults respond to the same comforts as terrified children: gentle holding and rocking and the assurance that somebody bigger and stronger is taking care of things, so you can safely go to sleep. In order to recover, mind, body, and brain need to be convinced that it is safe to let go. That happens only when you feel safe at a visceral level and allow yourself to connect that sense of safety with memories of past helplessness.

After an acute trauma, like an assault, accident, or natural disaster, survivors require the presence of familiar people, faces, and voices; physical contact; food; shelter and a safe place; and time to sleep. It is critical to communicate with loved ones close and far and to reunite as soon as possible with family and friends in a place that feels safe. Our attachment bonds are our greatest protection against threat. For example, children who are separated from their parents after a traumatic event are likely to suffer serious negative long-term effects. Studies conducted during World War II in England showed that children who lived in London during the Blitz and were sent away to the countryside for protection against German bombing raids fared much worse than children who remained with their parents and endured nights in bomb shelters and frightening images of destroyed buildings and dead people.²¹

Traumatized human beings recover in the context of relationships: with families, loved ones, AA meetings, veterans’ organizations, religious communities, or professional therapists. The role of those relationships is to provide physical and emotional safety, including safety from feeling shamed, admonished, or judged, and to bolster the courage to tolerate, face, and process the reality of what has happened.

As we have seen, much of the wiring of our brain circuits is devoted to being in tune with others. Recovery from trauma involves (re)connecting with our fellow human beings. This is why trauma that has occurred within relationships is generally more difficult to treat than trauma resulting from traffic accidents or natural disasters. In our society the most common traumas in

women and children occur at the hands of their parents or intimate partners. Child abuse, molestation, and domestic violence all are inflicted by people who are supposed to love you. That knocks out the most important protection against being traumatized: being sheltered by the people you love.

If the people whom you naturally turn to for care and protection terrify or reject you, you learn to shut down and to ignore what you feel.²² As we saw in part 3, when your caregivers turn on you, you have to find alternative ways to deal with feeling scared, angry, or frustrated. Managing your terror all by yourself gives rise to another set of problems: dissociation, despair, addictions, a chronic sense of panic, and relationships that are marked by alienation, disconnection, and explosions. Patients with these histories rarely make the connection between what happened to them long ago and how they currently feel and behave. Everything just seems unmanageable.

Relief does not come until they are able to acknowledge what has happened and recognize the invisible demons they're struggling with. Recall, for example, the men I described in chapter 11 who had been abused by pedophile priests. They visited the gym regularly, took anabolic steroids, and were strong as oxen. However, in our interviews they often acted like scared kids; the hurt boys deep inside still felt helpless.

While human contact and attunement are the wellspring of physiological self-regulation, the promise of closeness often evokes fear of getting hurt, betrayed, and abandoned. Shame plays an important role in this: "You will find out how rotten and disgusting I am and dump me as soon as you really get to know me." Unresolved trauma can take a terrible toll on relationships. If your heart is still broken because you were assaulted by someone you loved, you are likely to be preoccupied with not getting hurt again and fear opening up to someone new. In fact, you may unwittingly try to hurt them before they have a chance to hurt you.

This poses a real challenge for recovery. Once you recognize that posttraumatic reactions started off as efforts to save your life, you may gather the courage to face your inner music (or cacophony), but you will need help to do so. You have to find someone you can trust enough to accompany you, someone who can safely hold your feelings and help you listen to the painful messages from your emotional brain. You need a guide who is not afraid of your terror and who can contain your darkest rage, someone who can safeguard the wholeness of you while you explore the fragmented experiences that you had to keep secret from yourself for so long. Most traumatized individuals need an anchor and a great deal of coaching to do this work.

Choosing a Professional Therapist

The training of competent trauma therapists involves learning about the impact of trauma, abuse, and neglect and mastering a variety of techniques that can help to (1) stabilize and calm patients down, (2) help to lay traumatic memories and reenactments to rest, and (3) reconnect patients with their fellow men and women. Ideally the therapist will also have been on the receiving end of whatever therapy he or she practices.

While it's inappropriate and unethical for therapists to tell you the details of their personal struggles, it is perfectly reasonable to ask what particular forms of therapy they have been trained in, where they learned their skills, and whether they've personally benefited from the therapy they propose for you.

There is no one “treatment of choice” for trauma, and any therapist who believes that his or her particular method is the only answer to your problems is suspect of being an ideologue rather than somebody who is interested in making sure that you get well. No therapist can possibly be familiar with every effective treatment, and he or she must be open to your exploring options other than the ones he or she offers. He or she also must be open to learning from you. Gender, race, and personal background are relevant only if they interfere with helping the patient feel safe and understood.

Do you feel basically comfortable with this therapist? Does he or she seem to feel comfortable in his or her own skin and with you as a fellow human being? Feeling safe is a necessary condition for you to confront your fears and anxieties. Someone who is stern, judgmental, agitated, or harsh is likely to leave you feeling scared, abandoned, and humiliated, and that won’t help you resolve your traumatic stress. There may be times as old feelings from the past are stirred up, when you become suspicious that the therapist resembles someone who once hurt or abused you. Hopefully, this is something you can work through together, because in my experience patients get better only if they develop deep positive feelings for their therapists. I also don’t think that you can grow and change unless you feel that you have some impact on the person who is treating you.

The critical question is this: Do you feel that your therapist is curious to find out who *you* are and what *you*, not some generic “PTSD patient,” need? Are you just a list of symptoms on some diagnostic questionnaire, or does your therapist take the time to find out why you do what you do and think what you think? Therapy is a collaborative process—a mutual exploration of your self.

Patients who have been brutalized by their caregivers as children often do not feel safe with anyone. I often ask my patients if they can think of any person they felt safe with while they were growing up. Many of them hold tight to the memory of that one teacher, neighbor, shopkeeper, coach, or minister who showed that he or she cared, and that memory is often the seed of learning to reengage. We are a hopeful species. Working with trauma is as much about remembering how we survived as it is about what is broken.

I also ask my patients to imagine what they were like as newborns—whether they were lovable and filled with spunk. All of them believe they were and have some image of what they must have been like before they were hurt.

Some people don’t remember anybody they felt safe with. For them, engaging with horses or dogs may be much safer than dealing with human beings. This principle is currently being applied in many therapeutic settings to great effect, including in jails, residential treatment programs, and veterans’ rehabilitation. Jennifer, a member of the first graduating class of the Van der Kolk Center,²³ who had come to the program as an out-of-control, mute fourteen-year-old, said during her graduation ceremony that having been entrusted with the responsibility of caring for a horse was the critical first step for her. Her growing bond with her horse helped her feel safe enough to begin to relate to the staff of the center and then to focus on her classes, take her SATs, and be accepted to college.²⁴

4. COMMUNAL RHYTHMS AND SYNCHRONY

From the moment of our birth, our relationships are embodied in responsive faces, gestures, and

touch. As we saw in chapter 7, these are the foundations of attachment. Trauma results in a breakdown of attuned physical synchrony: When you enter the waiting room of a PTSD clinic, you can immediately tell the patients from the staff by their frozen faces and collapsed (but simultaneously agitated) bodies. Unfortunately, many therapists ignore those physical communications and focus only on the words with which their patients communicate.

The healing power of community as expressed in music and rhythms was brought home for me in the spring of 1997, when I was following the work of the Truth and Reconciliation Commission in South Africa. In some places we visited, terrible violence continued. One day I attended a group for rape survivors in the courtyard of a clinic in a township outside Johannesburg. We could hear the sound of bullets being fired at a distance while smoke billowed over the walls of the compound and the smell of teargas hung in the air. Later we heard that forty people had been killed.

Yet, while the surroundings were foreign and terrifying, I recognized this group all too well: The women sat slumped over—sad and frozen—like so many rape therapy groups I had seen in Boston. I felt a familiar sense of helplessness, and, surrounded by collapsed people, I felt myself mentally collapse as well. Then one of the women started to hum, while gently swaying back and forth. Slowly a rhythm emerged; bit by bit other women joined in. Soon the whole group was singing, moving, and getting up to dance. It was an astounding transformation: people coming back to life, faces becoming attuned, vitality returning to bodies. I made a vow to apply what I was seeing there and to study how rhythm, chanting, and movement can help to heal trauma.

We will see more of this in chapter 20, on theater, where I show how groups of young people—among them juvenile offenders and at-risk foster kids—gradually learn to work together and to depend on one another, whether as partners in Shakespearean swordplay or as the writers and performers of full-length musicals. Different patients have told me how much choral singing, aikido, tango dancing, and kickboxing have helped them, and I am delighted to pass their recommendations on to other people I treat.

I learned another powerful lesson about rhythm and healing when clinicians at the Trauma Center were asked to treat a five-year-old mute girl, Ying Mee, who had been adopted from an orphanage in China. After months of failed attempts to make contact with her, my colleagues Deborah Rozelle and Liz Warner realized that her rhythmical engagement system didn't work—she could not resonate with the voices and faces of the people around her. That led them to sensorimotor therapy.²⁵

The sensory integration clinic in Watertown, Massachusetts, is a wondrous indoor playground filled with swings, tubs full of multicolored rubber balls so deep that you can make yourself disappear, balance beams, crawl spaces fashioned from plastic tubing, and ladders that lead to platforms from which you can dive onto foam-filled mats. The staff bathed Ying Mee in the tub with plastic balls; that helped her feel sensations on her skin. They helped her sway on swings and crawl under weighted blankets. After six weeks something shifted—and she started to talk.²⁶

Ying Mee's dramatic improvement inspired us to start a sensory integration clinic at the Trauma Center, which we now also use in our residential treatment programs. We have not yet explored how well sensory integration works for traumatized adults, but I regularly incorporate sensory integration experiences and dance in my seminars.

Learning to become attuned provides parents (and their kids) with the visceral experience of

reciprocity. Parent-child interaction therapy (PCIT) is an interactive therapy that fosters this, as is SMART (sensory motor arousal regulation treatment), developed by my colleagues at the Trauma Center.²⁷

When we play together, we feel physically attuned and experience a sense of connection and joy. Improvisation exercises (such as those found at <http://learnimprov.com/>) also are a marvelous way to help people connect in joy and exploration. The moment you see a group of grim-faced people break out in a giggle, you know that the spell of misery has broken.

5. GETTING IN TOUCH

Mainstream trauma treatment has paid scant attention to helping terrified people to safely experience their sensations and emotions. Medications such as serotonin reuptake blockers, Resperidol and Seroquel increasingly have taken the place of helping people to deal with their sensory world.²⁸ However, the most natural way that we humans calm down our distress is by being touched, hugged, and rocked. This helps with excessive arousal and makes us feel intact, safe, protected, and in charge.



Rembrandt van Rijn: *Christ Healing the Sick*. Gestures of comfort are universally recognizable and reflect the healing power of attuned touch.

Touch, the most elementary tool that we have to calm down, is proscribed from most therapeutic practices. Yet you can't fully recover if you don't feel safe in your skin. Therefore, I encourage all my patients to engage in some sort of bodywork, be it therapeutic massage, Feldenkrais, or craniosacral therapy.

I asked my favorite bodywork practitioner, Licia Sky, about her practice with traumatized individuals. Here is some of what she told me: "I never begin a bodywork session without establishing a personal connection. I'm not taking a history; I'm not finding out how traumatized a person is or what happened to them. I check in where they are in their body right now. I ask them if there is anything they want me to pay attention to. All the while, I'm assessing their posture; whether they look me in the eye; how tense or relaxed they seem; are they connecting with me or not.

"The first decision I make is if they will feel safer face up or face down. If I don't know them, I usually start face up. I am very careful about draping; very careful to let them feel safe with whatever clothing they want to leave on. These are important boundaries to set up right at the beginning.

"Then, with my first touch, I make firm, safe contact. Nothing forced or sharp. Nothing too fast. The touch is slow, easy for the client to follow, gently rhythmic. It can be as strong as a handshake. The first place I might touch is their hand and forearm, because that's the safest place to touch anybody, the place where they can touch you back.

"You have to meet their point of resistance—the place that has the most tension—and meet it with an equal amount of energy. That releases the frozen tension. You can't hesitate; hesitation communicates a lack of trust in yourself. Slow movement, careful attuning to the client is different from hesitation. You have to meet them with tremendous confidence and empathy, let the pressure of your touch meet the tension they are holding in their bodies."

What does bodywork do for people? Licia's reply: "Just like you can thirst for water, you can thirst for touch. It is a comfort to be met confidently, deeply, firmly, gently, responsively. Mindful touch and movement grounds people and allows them to discover tensions that they may have held for so long that they are no longer even aware of them. When you are touched, you wake up to the part of your body that is being touched.

"The body is physically restricted when emotions are bound up inside. People's shoulders tighten; their facial muscles tense. They spend enormous energy on holding back their tears—or any sound or movement that might betray their inner state. When the physical tension is released, the feelings can be released. Movement helps breathing to become deeper, and as the tensions are released, expressive sounds can be discharged. The body becomes freer—breathing freer, being in flow. Touch makes it possible to live in a body that can move in response to being moved.

"People who are terrified need to get a sense of where their bodies are in space and of their boundaries. Firm and reassuring touch lets them know where those boundaries are: what's outside them, where their bodies end. They discover that they don't constantly have to wonder who and where they are. They discover that their body is solid and that they don't have to be constantly on guard. Touch lets them know that they are safe."

6. TAKING ACTION

The body responds to extreme experiences by secreting stress hormones. These are often blamed

for subsequent illness and disease. However, stress hormones are meant to give us the strength and endurance to respond to extraordinary conditions. People who actively *do* something to deal with a disaster—rescuing loved ones or strangers, transporting people to a hospital, being part of a medical team, pitching tents or cooking meals—utilize their stress hormones for their proper purpose and therefore are at much lower risk of becoming traumatized. (Nonetheless, everyone has his or her breaking point, and even the best-prepared person may become overwhelmed by the magnitude of the challenge.)

Helplessness and immobilization keep people from utilizing their stress hormones to defend themselves. When that happens, their hormones still are being pumped out, but the actions they're supposed to fuel are thwarted. Eventually, the activation patterns that were meant to promote coping are turned back against the organism and now keep fueling inappropriate fight/flight and freeze responses. In order to return to proper functioning, this persistent emergency response must come to an end. The body needs to be restored to a baseline state of safety and relaxation from which it can mobilize to take action in response to real danger.

My friends and teachers Pat Ogden and Peter Levine have each developed powerful body-based therapies, sensorimotor psychotherapy²⁹ and somatic experiencing³⁰ to deal with this issue. In these treatment approaches the story of what has happened takes a backseat to exploring physical sensations and discovering the location and shape of the imprints of past trauma on the body. Before plunging into a full-fledged exploration of the trauma itself, patients are helped to build up internal resources that foster safe access sensations and emotions that overwhelmed them at the time of the trauma. Peter Levine calls this process *pendulation*—gently moving in and out of accessing internal sensations and traumatic memories. In this way patients are helped to gradually expand their window of tolerance.

Once patients can tolerate being aware of their trauma-based physical experiences, they are likely to discover powerful physical impulses—like hitting, pushing, or running—that arose during the trauma but were suppressed in order to survive. These impulses manifest themselves in subtle body movements such as twisting, turning, or backing away. Amplifying these movements and experimenting with ways to modify them begins the process of bringing the incomplete, trauma-related “action tendencies” to completion and can eventually lead to resolution of the trauma. Somatic therapies can help patients to relocate themselves in the present by experiencing that it is safe to move. Feeling the pleasure of taking effective action restores a sense of agency and a sense of being able to actively defend and protect themselves.

Back in 1893 Pierre Janet, the first great explorer of trauma, wrote about “the pleasure of completed action,” and I regularly observe that pleasure when I practice sensorimotor psychotherapy and somatic experiencing: When patients can physically experience what it would have felt like to fight back or run away, they relax, smile, and express a sense of completion.

When people are forced to submit to overwhelming power, as is true for most abused children, women trapped in domestic violence, and incarcerated men and women, they often survive with resigned compliance. The best way to overcome ingrained patterns of submission is to restore a physical capacity to engage and defend. One of my favorite body-oriented ways to build effective fight/flight responses is our local impact center's model mugging program, in which women (and increasingly men) are taught to actively fight off a simulated attack.³¹ The program started in Oakland, California, in 1971 after a woman with a fifth-degree black belt in karate was raped. Wondering how this could have happened to someone who supposedly could

kill with her bare hands, her friends concluded that she had become de-skilled by fear. In the terms of this book, her executive functions—her frontal lobes—went off-line, and she froze. The model mugging program teaches women to recondition the freeze response through many repetitions of being placed in the “zero hour” (a military term for the precise moment of an attack) and learning to transform fear into positive fighting energy.

One of my patients, a college student with a history of unrelenting child abuse, took the course. When I first met her, she was collapsed, depressed, and overly compliant. Three months later, during her graduation ceremony, she successfully fought off a gigantic male attacker who ended up lying cringing on the floor (shielded from her blows by a thick protective suit) while she faced him, arms raised in a karate stance, calmly and clearly yelling no.

Not long afterward, she was walking home from the library after midnight when three men jumped out of some bushes, yelling: “Bitch, give us your money.” She later told me that she took that same karate stance and yelled back: “Okay, guys, I’ve been looking forward to this moment. Who wants to take me on first?” They ran away. If you’re hunched over and too afraid to look around, you are easy prey to other people’s sadism, but when you walk around projecting the message “Don’t mess with me,” you’re not likely to be bothered.

INTEGRATING TRAUMATIC MEMORIES

People cannot put traumatic events behind until they are able to acknowledge what has happened and start to recognize the invisible demons they’re struggling with. Traditional psychotherapy has focused mainly on constructing a narrative that explains why a person feels a particular way or, as Sigmund Freud put it back in 1914 in *Remembering, Repeating and Working Through*.³² “While the patient lives [the trauma] through as something real and actual, we have to accomplish the therapeutic task, which consists chiefly of translating it back again in terms of the past.” Telling the story is important; without stories, memory becomes frozen; and without memory you cannot imagine how things can be different. But as we saw in part 4, telling a story about the event does not guarantee that the traumatic memories will be laid to rest.

There is a reason for that. When people remember an ordinary event, they do not also relive the physical sensations, emotions, images, smells, or sounds associated with that event. In contrast, when people fully recall their traumas, they “have” the experience: They are engulfed by the sensory or emotional elements of the past. The brain scans of Stan and Ute Lawrence, the accident victims in chapter 4, show how this happens. When Stan was remembering his horrendous accident, two key areas in his brain went blank: the area that provides a sense of time and perspective, which makes it possible to know that “that was then, but I am safe now,” and another area that integrates the images, sounds, and sensations of trauma into a coherent story. When those parts of the brain are knocked out, you experience something not as an event with a beginning, a middle, and an end but in fragments of sensations, images, and emotions.

A trauma can be successfully processed only if all those brain structures are kept online. In Stan’s case, eye movement desensitization and reprocessing (EMDR) allowed him to access his memories of the accident without being overwhelmed by them. When the brain areas whose absence is responsible for flashbacks can be kept online while remembering what has happened, people can integrate their traumatic memories as belonging to the past.

Ute’s dissociation (as you recall, she shut down completely) complicated recovery in a

different way. None of the brain structures necessary to engage in the present were online, so that dealing with the trauma was simply impossible. Without a brain that is alert and present there can be no integration and resolution. She needed to be helped to increase her window of tolerance before she could deal with her PTSD symptoms.

Hypnosis was the most widely practiced treatment for trauma from the late 1800s, the time of Pierre Janet and Sigmund Freud, until after World War II. On YouTube you can still watch the documentary *Let There Be Light*, by the great Hollywood director John Huston, which shows men undergoing hypnosis to treat “war neurosis.” Hypnosis fell out of favor in the early 1990s and there have been no recent studies of its effectiveness for treating PTSD. However, hypnosis can induce a state of relative calm from which patients can observe their traumatic experiences without being overwhelmed by them. Since that capacity to quietly observe oneself is a critical factor in the integration of traumatic memories, it is likely that hypnosis, in some form, will make a comeback.

COGNITIVE BEHAVIORAL THERAPY (CBT)

During their training most psychologists are taught cognitive behavioral therapy. CBT was first developed to treat phobias such as fear of spiders, airplanes, or heights, to help patients compare their irrational fears with harmless realities. Patients are gradually desensitized from their irrational fears by bringing to mind what they are most afraid of, using their narratives and images (“imaginal exposure”), or they are placed in actual (but actually safe) anxiety-provoking situations (“in vivo exposure”), or they are exposed to virtual-reality, computer-simulated scenes, for example, in the case of combat-related PTSD, fighting in the streets of Fallujah.

The idea behind cognitive behavioral treatment is that when patients are repeatedly exposed to the stimulus without bad things actually happening, they gradually will become less upset; the bad memories will have become associated with “corrective” information of being safe.³³ CBT also tries to help patients deal with their tendency to avoid, as in “I don’t want to talk about it.”³⁴ It sounds simple, but, as we have seen, reliving trauma reactivates the brain’s alarm system and knocks out critical brain areas necessary for integrating the past, making it likely that patients will relive rather than resolve the trauma.

Prolonged exposure or “flooding” has been studied more thoroughly than any other PTSD treatment. Patients are asked to “focus their attention on the traumatic material and . . . not distract themselves with other thoughts or activities.”³⁵ Research has shown that up to one hundred minutes of flooding (in which anxiety-provoking triggers are presented in an intense, sustained form) are required before decreases in anxiety are reported.³⁶ Exposure sometimes helps to deal with fear and anxiety, but it has not been proven to help with guilt or other complex emotions.³⁷

In contrast to its effectiveness for irrational fears such as spiders, CBT has not done so well for traumatized individuals, particularly those with histories of childhood abuse. Only about one in three participants with PTSD who finish research studies show some improvement.³⁸ Those who complete CBT treatment usually have fewer PTSD symptoms, but they rarely recover completely: Most continue to have substantial problems with their health, work, or mental well-being.³⁹

In the largest published study of CBT for PTSD more than one-third of the patients dropped

out; the rest had a significant number of adverse reactions. Most of the women in the study still suffered from full-blown PTSD after three months in the study, and only 15 percent no longer had major PTSD symptoms.⁴⁰ A thorough analysis of all the scientific studies of CBT show that it works about as well as being in a supportive therapy relationship.⁴¹ The poorest outcome in exposure treatments occurs in patients who suffer from “mental defeat”—those who have given up.⁴²

Being traumatized is not just an issue of being stuck in the past; it is just as much a problem of not being fully alive in the present. One form of exposure treatment is virtual-reality therapy in which veterans wear high-tech goggles that make it possible to refight the battle of Fallujah in lifelike detail. As far as I know, the US Marines performed very well in combat. The problem is that they cannot tolerate being home. Recent studies of Australian combat veterans show that their brains are rewired to be alert for emergencies, at the expense of being focused on the small details of everyday life.⁴³ (We’ll learn more about this in chapter 19, on neurofeedback.) More than virtual-reality therapy, traumatized patients need “real world” therapy, which helps them to feel as alive when walking through the local supermarket or playing with their kids as they did in the streets of Baghdad.

Patients can benefit from reliving their trauma only if they are not overwhelmed by it. A good example is a study of Vietnam veterans conducted in the early 1990s by my colleague Roger Pitman.⁴⁴ I visited Roger’s lab every week during that time, since we were conducting the study of brain opioids in PTSD that I discussed in chapter 2. Roger would show me the videotapes of his treatment sessions and we would discuss what we observed. He and his colleagues pushed the veterans to talk repeatedly about every detail of their experiences in Vietnam, but the investigators had to stop the study because many patients became panicked by their flashbacks, and the dread often persisted after the sessions. Some never returned, while many of those who stayed with the study became more depressed, violent, and fearful; some coped with their increased symptoms by increasing their alcohol consumption, which led to further violence and humiliation, as some of their families called the police to take them to a hospital.

DESENSITIZATION

Over the past two decades the prevailing treatment taught to psychology students has been some form of systematic desensitization: helping patients become less reactive to certain emotions and sensations. But is this the correct goal? Maybe the issue is not desensitization but integration: putting the traumatic event into its proper place in the overall arc of one’s life.

Desensitization makes me think of the small boy—he must have been about five—I saw in front of my house recently. His hulking father was yelling at him at the top of his voice as the boy rode his tricycle down my street. The kid was unfazed, while my heart was racing and I felt an impulse to deck the guy. How much brutality had it taken to numb a child this young to his father’s brutality? His indifference to his father’s yelling must have been the result of prolonged exposure, but, I wondered, at what price? Yes, we can take drugs that blunt our emotions or we can learn to desensitize ourselves. As medical students we learned to stay analytical when we had to treat children with third-degree burns. But, as the neuroscientist Jean Decety at the University of Chicago has shown, desensitization to our own or to other people’s pain tends to

lead to an overall blunting of emotional sensitivity.⁴⁵

A 2010 report on 49,425 veterans with newly diagnosed PTSD from the Iraq and Afghanistan wars who sought care from the VA showed that fewer than one out of ten actually completed the recommended treatment.⁴⁶ As in Pitman's Vietnam veterans, exposure treatment, as currently practiced, rarely works for them. We can only "process" horrendous experiences if they do not overwhelm us. And that means that other approaches are necessary.

DRUGS TO SAFELY ACCESS TRAUMA?

When I was a medical student, I spent the summer of 1966 working for Jan Bastiaans, a professor at Leiden University in the Netherlands who was known for his work treating Holocaust survivors with LSD. He claimed to have achieved spectacular results, but when colleagues inspected his archives, they found few data to support his claims. The potential of mind-altering substances for trauma treatment was subsequently neglected until 2000, when Michael Mithoefer and his colleagues in South Carolina received FDA permission to conduct an experiment with MDMA (ecstasy). MDMA was classified as a controlled substance in 1985 after having been used for years as a recreational drug. As with Prozac and other psychotropic agents, we don't know exactly how MDMA works, but it is known to increase concentrations of a number of important hormones including oxytocin, vasopressin, cortisol, and prolactin.⁴⁷ Most relevant for trauma treatment, it increases people's awareness of themselves; they frequently report a heightened sense of compassionate energy, accompanied by curiosity, clarity, confidence, creativity, and connectedness. Mithoefer and his colleagues were looking for a medication that would enhance the effectiveness of psychotherapy, and they became interested in MDMA because it decreases fear, defensiveness, and numbing, as well as helping to access inner experience.⁴⁸ They thought MDMA might enable patients to stay within the window of tolerance so they could revisit their traumatic memories without suffering overwhelming physiological and emotional arousal.

The initial pilot studies have supported that expectation.⁴⁹ The first study, involving combat veterans, firefighters, and police officers with PTSD, had positive results. In the next study, of a group of twenty victims of assault who had been unresponsive to previous forms of therapy, twelve subjects received MDMA and eight received an inactive placebo. Sitting or lying in a comfortable room, they then all received two eight-hour psychotherapy sessions, mainly using internal family systems (IFS) therapy, the subject of chapter 17 of this book. Two months later 83 percent of the patients who received MDMA plus psychotherapy were considered completely cured, compared with 25 percent of the placebo group. None of the patients had adverse side effects. Perhaps most interesting, when the participants were interviewed more than a year after the study was completed, they had maintained their gains.

By being able to observe the trauma from the calm, mindful state that IFS calls Self (a term I'll discuss further in chapter 17), mind and brain are in a position to integrate the trauma into the overall fabric of life. This is very different from traditional desensitization techniques, which are about blunting a person's response to past horrors. This is about association and integration—making a horrendous event that overwhelmed you in the past into a memory of something that happened a long time ago.

Nonetheless, psychedelic substances are powerful agents with a troubled history. They can

easily be misused through careless administration and poor maintenance of therapeutic boundaries. It is to be hoped that MDMA will not be another magic cure released from Pandora's box.

WHAT ABOUT MEDICATIONS?

People have always used drugs to deal with traumatic stress. Each culture and each generation has its preferences—gin, vodka, beer, or whiskey; hashish, marijuana, cannabis, or ganja; cocaine; opioids like oxycontin; tranquilizers such as Valium, Xanax, and Klonopin. When people are desperate, they will do just about anything to feel calmer and more in control.⁵⁰

Mainstream psychiatry follows this tradition. Over the past decade the Departments of Defense and Veterans Affairs combined have spent over \$4.5 billion on antidepressants, antipsychotics, and antianxiety drugs. A June 2010 internal report from the Defense Department's Pharmacoeconomic Center at Fort Sam Houston in San Antonio showed that 213,972, or 20 percent of the 1.1 million active-duty troops surveyed, were taking some form of psychotropic drug: antidepressants, antipsychotics, sedative hypnotics, or other controlled substances.⁵¹

However, drugs cannot “cure” trauma; they can only dampen the expressions of a disturbed physiology. And they do not teach the lasting lessons of self-regulation. They can help to control feelings and behavior, but always at a price—because they work by blocking the chemical systems that regulate engagement, motivation, pain, and pleasure. Some of my colleagues remain optimistic: I keep attending meetings where serious scientists discuss their quest for the elusive magic bullet that will miraculously reset the fear circuits of the brain (as if traumatic stress involved only one simple brain circuit). I also regularly prescribe medications.

Just about every group of psychotropic agents has been used to treat some aspect of PTSD.⁵² The serotonin reuptake inhibitors (SSRIs) such as Prozac, Zoloft, Effexor, and Paxil have been most thoroughly studied, and they can make feelings less intense and life more manageable. Patients on SSRIs often feel calmer and more in control; feeling less overwhelmed often makes it easier to engage in therapy. Other patients feel blunted by SSRIs—they feel they're “losing their edge.” I approach it as an empirical question: Let's see what works, and only the patient can be the judge of that. On the other hand, if one SSRI does not work, it's worth trying another, because they all have slightly different effects. It's interesting that the SSRIs are widely used to treat depression, but in a study in which we compared Prozac with eye movement desensitization and reprocessing (EMDR) for patients with PTSD, many of whom were also depressed, EMDR proved to be a more effective antidepressant than Prozac.⁵³ I'll return to that subject in chapter 15.⁵⁴

Medicines that target the autonomic nervous system, like propranolol or clonidine, can help to decrease hyperarousal and reactivity to stress.⁵⁵ This family of drugs works by blocking the physical effects of adrenaline, the fuel of arousal, and thus reduces nightmares, insomnia, and reactivity to trauma triggers.⁵⁶ Blocking adrenaline can help to keep the rational brain online and make choices possible: “Is this really what I want to do?” Since I have started to integrate mindfulness and yoga into my practice, I use these medications less often, except occasionally to help patients sleep more restfully.

Traumatized patients tend to like tranquilizing drugs, benzodiazepines like Klonopin,

Valium, Xanax, and Ativan. In many ways, they work like alcohol, in that they make people feel calm and keep them from worrying. (Casino owners love customers on benzodiazepines; they don't get upset when they lose and keep gambling.) But also, like alcohol, benzos weaken inhibitions against saying hurtful things to people we love. Most civilian doctors are reluctant to prescribe these drugs, because they have a high addiction potential and they may also interfere with trauma processing. Patients who stop taking them after prolonged use usually have withdrawal reactions that make them agitated and increase posttraumatic symptoms.

I sometimes give my patients low doses of benzodiazepines to use as needed, but not enough to take on a daily basis. They have to choose when to use up their precious supply, and I ask them to keep a diary of what was going on when they decided to take the pill. That gives us a chance to discuss the specific incidents that triggered them.

A few studies have shown that anticonvulsants and mood stabilizers, such as lithium or valproate, can have mildly positive effects, taking the edge off hyperarousal and panic.⁵⁷ The most controversial medications are the so-called second-generation antipsychotic agents, such as Risperdal and Seroquel, the largest-selling psychiatric drugs in the United States (\$14.6 billion in 2008). Low doses of these agents can be helpful in calming down combat veterans and women with PTSD related to childhood abuse.⁵⁸ Using these drugs is sometimes justified, for example when patients feel completely out of control and unable to sleep or where other methods have failed.⁵⁹ But it's important to keep in mind that these medications work by blocking the dopamine system, the brain's reward system, which also functions as the engine of pleasure and motivation.

Antipsychotic medications such as Risperdal, Abilify, or Seroquel can significantly dampen the emotional brain and thus make patients less skittish or enraged, but they also may interfere with being able to appreciate subtle signals of pleasure, danger, or satisfaction. They also cause weight gain, increase the chance of developing diabetes, and make patients physically inert, which is likely to further increase their sense of alienation. These drugs are widely used to treat abused children who are inappropriately diagnosed with bipolar disorder or mood dysregulation disorder. More than half a million children and adolescents in America are now taking antipsychotic drugs, which may calm them down but also interfere with learning age-appropriate skills and developing friendships with other children.⁶⁰ A Columbia University study recently found that prescriptions of antipsychotic drugs for privately insured two- to five-year-olds had doubled between 2000 and 2007.⁶¹ Only 40 percent of them had received a proper mental health assessment.

Until it lost its patent, the pharmaceutical company Johnson & Johnson doled out LEGO blocks stamped with the word "Risperdal" for the waiting rooms of child psychiatrists. Children from low-income families are four times as likely as the privately insured to receive antipsychotic medicines. In one year alone Texas Medicaid spent \$96 million on antipsychotic drugs for teenagers and children—including three unidentified infants who were given the drugs before their first birthdays.⁶² There have been no studies on the effects of psychotropic medications on the developing brain. Dissociation, self-mutilation, fragmented memories, and amnesia generally do not respond to any of these medications.

The Prozac study that I discussed in chapter 2 was the first to discover that traumatized civilians tend to respond much better to medications than do combat veterans.⁶³ Since then other studies have found similar discrepancies. In this light it is worrisome that the Department of

Defense and the VA prescribe enormous quantities of medications to combat soldiers and returning veterans, often without providing other forms of therapy. Between 2001 and 2011 the VA spent about \$1.5 billion on Seroquel and Risperdal, while Defense spent about \$90 million during the same period, even though a research paper published in 2001 showed that Risperdal was no more effective than a placebo in treating PTSD.⁶⁴ Similarly, between 2001 and 2012 the VA spent \$72.1 million and Defense spent \$44.1 million on benzodiazepines⁶⁵—medications that clinicians generally avoid prescribing to civilians with PTSD because of their addiction potential and lack of significant effectiveness for PTSD symptoms.

THE ROAD OF RECOVERY IS THE ROAD OF LIFE

In the first chapter of this book I introduced you to a patient named Bill whom I met over thirty years ago at the VA. Bill became one of my longtime patient-teachers, and our relationship is also the story of my evolution of trauma treatment.

Bill had served as a medic in Vietnam in 1967–71, and after he returned, he tried to use the skills he had learned in the army by working on a burn unit in a local hospital. Nursing kept him frazzled, explosive, and on edge, but he had no idea that these problems had anything to do with what he had experienced in Vietnam. After all, the PTSD diagnosis did not yet exist, and Irish working-class guys in Boston didn't consult shrinks. His nightmares and insomnia subsided a bit after he left nursing and enrolled in a seminary to become a minister. He did not seek help until after his first son was born in 1978.

The baby's crying triggered unrelenting flashbacks, in which he saw, heard, and smelled burned and mutilated children in Vietnam. He was so out of control that some of my colleagues at the VA wanted to put him in the hospital to treat what they thought was a psychosis. However, as he and I started to work together and he began to feel safe with me, he gradually opened up about what he had witnessed in Vietnam, and he slowly started to tolerate his feelings without becoming overwhelmed. This helped him to refocus on taking care of his family and on finishing his training as a minister. After two years he was a pastor with his own parish, and we felt that our work was done.

I had no further contact with Bill until he called me up eighteen years to the day after I first met him. He was experiencing exactly the same symptoms—flashbacks, terrible nightmares, feelings that he was going crazy—that he'd had right after his baby was born. That son had just turned eighteen, and Bill had accompanied him to register for the draft—at the same armory from which Bill himself had been shipped off to Vietnam. By then I knew much more about treating traumatic stress, and Bill and I dealt with the specific memories of what he had seen, heard, and smelled back in Vietnam, details that he had been too scared to recall when we first met. We could now integrate these memories with EMDR, so that they became stories of what happened long ago instead of instant transports into the hell of Vietnam. Once he felt more settled, he wanted to deal with his childhood: his brutal upbringing and his guilt about having left behind his younger schizophrenic brother when he enlisted for Vietnam, unprotected against their father's violent outbursts.

Another important theme of our time together was the day-to-day pain Bill confronted as a minister—having to bury adolescents killed in car crashes only a few years after he'd baptized them or having couples he'd married come back in crisis over domestic violence. Bill went on to

organize a support group for fellow clergy faced with similar traumas, and he became an important force in his community.

Bill's third treatment started five years later, when he developed a serious neurological illness at age fifty-three. He had suddenly started to experience episodic paralysis in several parts of his body, and he was beginning to accept that he would probably spend the rest of his life in a wheelchair. I thought his problems might be due to multiple sclerosis, but his neurologists could not find specific lesions, and they said there was no cure for his condition. He told me how grateful he was for his wife's support. She already had arranged to have a wheelchair ramp built to the kitchen entrance to their house.

Given his grim prognosis, I urged Bill to find a way to fully feel and befriend the distressing feelings in his body, just as he had learned to tolerate and live with his most painful memories of the war. I suggested that he consult a body worker who had introduced me to Feldenkrais, a gentle, hands-on approach to rearranging physical sensations and muscle movements. When Bill came back to report on how he was doing, he expressed delight with his increased sense of control. I mentioned that I'd recently started to do yoga myself and that we had just opened up a yoga program at the Trauma Center. I invited him to explore that as his next step.

Bill found a local Bikram yoga class, a hot and intense practice usually reserved for young and energetic people. Bill loved it, even though parts of his body occasionally gave way in class. Despite his physical disability, he gained a sense of bodily pleasure and mastery that he had never felt before.

Bill's psychological treatment had helped him put the horrendous experience of Vietnam in the past. Now befriending his body was keeping him from organizing his life around the loss of physical control. He decided to become certified as a yoga instructor, and he began teaching yoga at his local armory to the veterans who were returning from Iraq and Afghanistan.

Today, ten years later, Bill continues to be fully engaged in life—with his children and grandchildren, through his work with veterans, and in his church. He copes with his physical limitations as an inconvenience. To date he has taught yoga classes to more than 1,300 returning combat veterans. He still regularly suffers from the sudden weakness in his limbs that requires him to sit or lie down. But, like his memories of childhood and Vietnam, these episodes do not dominate his existence. They are simply part of the ongoing, evolving story of his life.

CHAPTER 14

LANGUAGE: MIRACLE AND TYRANNY

Give sorrow words; the grief that does not speak knits up the o'er wrought heart and bids it break.

—William Shakespeare, *Macbeth*

We can hardly bear to look. The shadow may carry the best of the life we have not lived. Go into the basement, the attic, the refuse bin. Find gold there. Find an animal who has not been fed or watered. It is you!! This neglected, exiled animal, hungry for attention, is a part of your self.

—Marion Woodman (as quoted by Stephen Cope in *The Great Work of Your Life*)

In September 2001 several organizations, including the National Institutes of Health, Pfizer pharmaceuticals, and the New York Times Company Foundation, organized expert panels to recommend the best treatments for people traumatized by the attacks on the World Trade Center. Because many widely used trauma interventions had never been carefully evaluated in random communities (as opposed to patients who seek psychiatric help), I thought that this presented an extraordinary opportunity to compare how well a variety of different approaches would work. My colleagues were more conservative, and after lengthy deliberations the committees recommended only two forms of treatment: psychoanalytically oriented therapy and cognitive behavioral therapy. Why analytic talk therapy? Since Manhattan is one of the last bastions of Freudian psychoanalysis, it would have been bad politics to exclude a substantial proportion of local mental health practitioners. Why CBT? Because behavioral treatment can be broken down into concrete steps and “manualized” into uniform protocols, it is the favorite treatment of academic researchers, another group that could not be ignored. After the recommendations were approved, we sat back and waited for New Yorkers to find their way to therapists’ offices. Almost nobody showed up.

Dr. Spencer Eth, who ran the psychiatry department at the now-defunct St. Vincent’s Hospital in Greenwich Village, was curious where survivors had turned for help, and early in 2002, together with some medical students, he conducted a survey of 225 people who had

escaped from the Twin Towers. Asked what had been most helpful in overcoming the effects of their experience, the survivors credited acupuncture, massage, yoga, and EMDR, in that order.¹ Among rescue workers, massages were particularly popular. Eth's survey suggests that the most helpful interventions focused on relieving the physical burdens generated by trauma. The disparity between the survivors' experience and the experts' recommendations is intriguing. Of course, we don't know how many survivors eventually did seek out more traditional therapies. But the apparent lack of interest in talk therapy raises a basic question: What good is it to talk about your trauma?

THE UNSPEAKABLE TRUTH

Therapists have an undying faith in the capacity of talk to resolve trauma. That confidence dates back to 1893, when Freud (and his mentor, Breuer) wrote that trauma "immediately and permanently disappeared when we had succeeded in bringing clearly to light the memory of the event by which it was provoked and in arousing its accompanying affect, and when the patient had described that event in the greatest possible detail and had put the affect into words."²

Unfortunately, it's not so simple: Traumatic events are almost impossible to put into words. This is true for all of us, not just for people who suffer from PTSD. The initial imprints of the events of September 11 were not stories but images: frantic people running down the street, their faces covered with ash; an airplane smashing into Tower One of the World Trade Center; the distant specks that were people jumping hand in hand. Those images were replayed over and over, in our minds and on the TV screen, until Mayor Giuliani and the media helped us create a narrative we could share with one another.

In *Seven Pillars of Wisdom* T. E. Lawrence wrote of his war experiences: "We learned that there were pangs too sharp, griefs too deep, ecstasies too high for our finite selves to register. When emotion reached this pitch the mind choked; and memory went white till the circumstances were humdrum once more."³ While trauma keeps us dumbfounded, the path out of it is paved with words, carefully assembled, piece by piece, until the whole story can be revealed.

BREAKING THE SILENCE

Activists in the early campaign for AIDS awareness created a powerful slogan: "Silence = Death." Silence about trauma also leads to death—the death of the soul. Silence reinforces the godforsaken isolation of trauma. Being able to say aloud to another human being, "I was raped" or "I was battered by my husband" or "My parents called it discipline, but it was abuse" or "I'm not making it since I got back from Iraq," is a sign that healing can begin.

We may think we can control our grief, our terror, or our shame by remaining silent, but naming offers the possibility of a different kind of control. When Adam was put in charge of the animal kingdom in the Book of Genesis, his first act was to give a name to every living creature.

If you've been hurt, you need to acknowledge and name what happened to you. I know that from personal experience: As long as I had no place where I could let myself know what it was like when my father locked me in the cellar of our house for various three-year-old offenses, I was chronically preoccupied with being exiled and abandoned. Only when I could talk about how that little boy felt, only when I could forgive him for having been as scared and submissive

as he was, did I start to enjoy the pleasure of my own company. Feeling listened to and understood changes our physiology; being able to articulate a complex feeling, and having our feelings recognized, lights up our limbic brain and creates an “aha moment.” In contrast, being met by silence and incomprehension kills the spirit. Or, as John Bowlby so memorably put it: “What can not be spoken to the [m]other cannot be told to the self.”

If you hide from yourself the fact that an uncle molested you when you were young, you are vulnerable to react to triggers like an animal in a thunderstorm: with a full-body response to the hormones that signal “danger.” Without language and context, your awareness may be limited to: “I’m scared.” Yet, determined to stay in control, you are likely to avoid anybody or anything that reminds you even vaguely of your trauma. You may also alternate between being inhibited and being uptight or reactive and explosive—all without knowing why.

As long as you keep secrets and suppress information, you are fundamentally at war with yourself. Hiding your core feelings takes an enormous amount of energy, it saps your motivation to pursue worthwhile goals, and it leaves you feeling bored and shut down. Meanwhile, stress hormones keep flooding your body, leading to headaches, muscle aches, problems with your bowels or sexual functions—and irrational behaviors that may embarrass you and hurt the people around you. Only after you identify the source of these responses can you start using your feelings as signals of problems that require your urgent attention.

Ignoring inner reality also eats away at your sense of self, identity, and purpose. Clinical psychologist Edna Foa and her colleagues developed the Posttraumatic Cognitions Inventory to assess how patients think about themselves.⁴ Symptoms of PTSD often include statements like “I feel dead inside,” “I will never be able to feel normal emotions again,” “I have permanently changed for the worse,” “I feel like an object, not like a person,” “I have no future,” and “I feel like I don’t know myself anymore.”

The critical issue is allowing yourself to know what you know. That takes an enormous amount of courage. In *What It Is Like to Go to War*, Vietnam veteran Karl Marlantes grapples with his memories of belonging to a brilliantly effective Marine combat unit and confronts the terrible split he discovered inside himself:

For years I was unaware of the need to heal that split, and there was no one, after I returned, to point this out to me. . . . Why did I assume there was only one person inside me? . . . There’s a part of me that just loves maiming, killing, and torturing. This part of me isn’t all of me. I have other elements that indeed are just the opposite, of which I am proud. So am I a killer? No, but part of me is. Am I a torturer? No, but part of me is. Do I feel horror and sadness when I read in the newspapers of an abused child? Yes. But am I fascinated?⁵

Marlantes tells us that his road to recovery required learning to tell the truth, even if that truth was brutally painful.

Death, destruction, and sorrow need to be constantly justified in the absence of some overarching meaning for the suffering. Lack of this overarching meaning encourages making things up, lying, to fill the gap in meaning.⁶

I’d never been able to tell anyone what was going on inside. So I forced these images

back, away, for years. I began to reintegrate that split-off part of my experience only after I actually began to imagine that kid as a kid, my kid perhaps. Then, out came this overwhelming sadness—and healing. Integrating the feelings of sadness, rage, or all of the above with the action should be standard operating procedure for all soldiers who have killed face-to-face. It requires no sophisticated psychological training. Just form groups under a fellow squad or platoon member who has had a few days of group leadership training and encourage people to talk.⁷

Getting perspective on your terror and sharing it with others can reestablish the feeling that you are a member of the human race. After the Vietnam veterans I treated joined a therapy group where they could share the atrocities they had witnessed and committed, they reported beginning to open their hearts to their girlfriends.

THE MIRACLE OF SELF-DISCOVERY

Discovering your Self in language is always an epiphany, even if finding the words to describe your inner reality can be an agonizing process. That is why I find Helen Keller's account of how she was "born into language"⁸ so inspiring.

When Helen was nineteen months old and just starting to talk, a viral infection robbed her of her sight and hearing. Now deaf, blind, and mute, this lovely, lively child turned into an untamed, isolated creature. After five desperate years her family invited a partially blind teacher, Anne Sullivan, to come from Boston to their home in rural Alabama as Helen's tutor. Anne began immediately to teach Helen the manual alphabet, spelling words into her hand letter by letter, but it took ten weeks of trying to connect with this wild child before the breakthrough occurred. It came as Anne spelled the word "water" into one of Helen's hands while she held the other under the water pump.

Helen later recalled that moment in *The Story of My Life*: "Water! That word startled my soul, and it awoke, full of the spirit of the morning. . . . Until that day my mind had been like a darkened chamber, waiting for words to enter and light the lamp, which is thought. I learned a great many words that day."

Learning the names of things enabled the child not only to create an inner representation of the invisible and inaudible physical reality around her but also to find herself: Six months later she started to use the first-person "I."

Helen's story reminds me of the abused, recalcitrant, uncommunicative kids we see in our residential treatment programs. Before she acquired language, she was bewildered and self-centered—looking back, she called that creature "Phantom." And indeed, our kids come across as phantoms until they can discover who they are and feel safe enough to communicate what is going on with them.

In a later book, *The World I Live In*, Keller again described her birth into selfhood: "Before my teacher came to me, I did not know that I am. I lived in a world that was a no-world. . . . I had neither will nor intellect. . . . I can remember all this, not because I knew that it was so, but because I have tactual memory. It enables me to remember that I never contracted my forehead in the act of thinking."⁹

Helen's "tactual" memories—memories based only on touch—could not be shared. But

language opened up the possibility of joining a community. At age eight, when Helen went with Anne to the Perkins Institution for the Blind in Boston (where Sullivan herself had trained), she became able to communicate with other children for the first time: “Oh, what happiness!” she wrote. “To talk freely with other children! To feel at home in the great world!”

Helen’s discovery of language with the help of Anne Sullivan captures the essence of a therapeutic relationship: finding words where words were absent before and, as a result, being able to share your deepest pain and deepest feelings with another human being. This is one of the most profound experiences we can have, and such resonance, in which hitherto unspoken words can be discovered, uttered, and received, is fundamental to healing the isolation of trauma—especially if other people in our lives have ignored or silenced us. Communicating fully is the opposite of being traumatized.

KNOWING YOURSELF OR TELLING YOUR STORY? OUR DUAL AWARENESS SYSTEM

Anyone who enters talk therapy, however, almost immediately confronts the limitations of language. This was true of my own psychoanalysis. While I talk easily and can tell interesting tales, I quickly realized how difficult it was to feel my feelings deeply and simultaneously report them to someone else. When I got in touch with the most intimate, painful, or confusing moments of my life, I often found myself faced with a choice: I could either focus on reliving old scenes in my mind’s eye and let myself feel what I had felt back then, or I could tell my analyst logically and coherently what had transpired. When I chose the latter, I would quickly lose touch with myself and start to focus on *his* opinion of what I was telling him. The slightest hint of doubt or judgment would shut me down, and I would shift my attention to regaining his approval.

Since then neuroscience research has shown that we possess two distinct forms of self-awareness: one that keeps track of the self across time and one that registers the self in the present moment. The first, our autobiographical self, creates connections among experiences and assembles them into a coherent story. This system is rooted in language. Our narratives change with the telling, as our perspective changes and as we incorporate new input.

The other system, moment-to-moment self-awareness, is based primarily in physical sensations, but if we feel safe and are not rushed, we can find words to communicate that experience as well. These two ways of knowing are localized in different parts of the brain that are largely disconnected from each other.¹⁰ Only the system devoted to self-awareness, which is based in the medial prefrontal cortex, can change the emotional brain.

In the groups I used to lead for veterans, I could sometimes see these two systems working side by side. The soldiers told horrible tales of death and destruction, but I noticed that their bodies often simultaneously radiated a sense of pride and belonging. Similarly, many patients tell me about the happy families they grew up in while their bodies are slumped over and their voices sound anxious and uptight. One system creates a story for public consumption, and if we tell that story often enough, we are likely to start believing that it contains the whole truth. But the other system registers a different truth: how we experience the situation deep inside. It is this second system that needs to be accessed, befriended, and reconciled.

Just recently at my teaching hospital, a group of psychiatric residents and I interviewed a

young woman with temporal lobe epilepsy who was being evaluated following a suicide attempt. The residents asked her standard questions about her symptoms, the medications she was taking, how old she was when the diagnosis was made, what had made her try to kill herself. She responded in a flat, matter-of-fact voice: She'd been five when she was diagnosed. She'd lost her job; she knew she'd been faking it; she felt worthless. For some reason one of the residents asked whether she had been sexually abused. That question surprised me: She had given us no indication that she had had problems with intimacy or sexuality, and I wondered if the doctor was pursuing a private agenda.

Yet the story our patient told did not explain why she had fallen apart after losing her job. So I asked her what it had been like for that five-year-old girl to be told that something was wrong with her brain. That forced her to check in with herself, as she had no ready-made script for that question. In a subdued tone of voice she told us that the worst part of her diagnosis was that afterward her father wanted nothing more to do with her: "He just saw me as a defective child." Nobody had supported her, she said, so she basically had to manage by herself.

I then asked her how she felt now about that little girl with newly diagnosed epilepsy who was left on her own. Instead of crying for her loneliness or being angry about the lack of support, she said fiercely: "She was stupid, whiny, and dependent. She should have stepped up to the plate and sucked it up." That passion obviously came from the part of her that had valiantly tried to cope with her distress, and I acknowledged that it probably had helped her survive back then. I asked her to allow that frightened, abandoned girl to tell her what it had been like to be all alone, her illness compounded by family rejection. She started to sob and kept quiet for a long time until finally she said: "No, she did not deserve that. She should have been supported; somebody should have looked after her." Then she shifted again and proudly told me about her accomplishments—how much she'd achieved despite that lack of support. Public story and inner experience finally met.

THE BODY IS THE BRIDGE

Trauma stories lessen the isolation of trauma, and they provide an *explanation* for why people suffer the way they do. They allow doctors to make diagnoses, so that they can address problems like insomnia, rage, nightmares, or numbing. Stories can also provide people with a target to blame. Blaming is a universal human trait that helps people feel good while feeling bad, or, as my old teacher Elvin Semrad used to say: "Hate makes the world go round." But stories also obscure a more important issue, namely, that trauma radically changes people: that in fact they no longer are "themselves."

It is excruciatingly difficult to put that feeling of no longer being yourself into words. Language evolved primarily to share "things out there," not to communicate our inner feelings, our interiority. (Again, the language center of the brain is about as far removed from the center for experiencing one's self as is geographically possible.) Most of us are better at describing someone else than we are at describing ourselves. As I once heard Harvard psychologist Jerome Kagan say: "The task of describing most private experiences can be likened to reaching down to a deep well to pick up small fragile crystal figures while you are wearing thick leather mittens."¹¹

We can get past the slipperiness of words by engaging the self-observing, body-based self

system, which speaks through sensations, tone of voice, and body tensions. Being able to perceive visceral sensations is the very foundation of emotional awareness.¹² If a patient tells me that he was eight when his father deserted the family, I am likely to stop and ask him to check in with himself: What happens inside when he tells me about that boy who never saw his father again? Where is it registered in his body? When you activate your gut feelings and listen to your heartbreak—when you follow the interoceptive pathways to your innermost recesses—things begin to change.

WRITING TO YOURSELF

There are other ways to access your inner world of feelings. One of the most effective is through writing. Most of us have poured out our hearts in angry, accusatory, plaintive, or sad letters after people have betrayed or abandoned us. Doing so almost always makes us feel better, even if we never send them. When you write to yourself, you don't have to worry about other people's judgment—you just listen to your own thoughts and let their flow take over. Later, when you reread what you wrote, you often discover surprising truths.

As functioning members of society, we're supposed to be "cool" in our day-to-day interactions and subordinate our feelings to the task at hand. When we talk with someone with whom we don't feel completely safe, our social editor jumps in on full alert and our guard is up. Writing is different. If you ask your editor to leave you alone for a while, things will come out that you had no idea were there. You are free to go into a sort of a trance state in which your pen (or keyboard) seems to channel whatever bubbles up from inside. You can connect those self-observing and narrative parts of your brain without worrying about the reception you'll get.

In the practice called free writing, you can use any object as your own personal Rorschach test for entering a stream of associations. Simply write the first thing that comes to your mind as you look at the object in front of you and then keep going without stopping, rereading, or crossing out. A wooden spoon on the counter may trigger memories of making tomato sauce with your grandmother—or of being beaten as a child. The teapot that's been passed down for generations may take you meandering to the furthest reaches of your mind to the loved ones you've lost or family holidays that were a mix of love and conflict. Soon an image will emerge, then a memory, and then a paragraph to record it. Whatever shows up on the paper will be a manifestation of associations that are uniquely yours.

My patients often bring in fragments of writing and drawings about memories that they may not yet be ready to discuss. Reading the content out loud would probably overwhelm them, but they want me to be aware of what they are wrestling with. I tell them how much I appreciate their courage in allowing themselves to explore hitherto hidden parts of themselves and in entrusting me with them. These tentative communications guide my treatment plan—for example, by helping me to decide whether to add somatic processing, neurofeedback, or EMDR to our current work.

As far as I'm aware, the first systematic test of the power of language to relieve trauma was done in 1986, when James Pennebaker at the University of Texas in Austin turned his introductory psychology class into an experimental laboratory. Pennebaker started off with a healthy respect for the importance of inhibition, of keeping things to yourself, which he viewed as the glue of civilization.¹³ But he also assumed that people pay a price for trying to suppress

being aware of the elephant in the room.

He began by asking each student to identify a deeply personal experience that they'd found very stressful or traumatic. He then divided the class into three groups: One would write about what was currently going on in their lives; the second would write about the details of the traumatic or stressful event; and the third would recount the facts of the experience, their feelings and emotions about it, and what impact they thought this event had had on their lives. All of the students wrote continuously for fifteen minutes on four consecutive days while sitting alone in a small cubicle in the psychology building.

The students took the study very seriously; many revealed secrets that they had never told anyone. They often cried as they wrote, and many confided in the course assistants that they'd become preoccupied with these experiences. Of the two hundred participants, sixty-five wrote about a childhood trauma. Although the death of a family member was the most frequent topic, 22 percent of the women and 10 percent of the men reported sexual trauma prior to the age of seventeen.

The researchers asked the students about their health and were surprised how often the students spontaneously reported histories of major and minor health problems: cancer, high blood pressure, ulcers, flu, headaches, and earaches.¹⁴ Those who reported a traumatic sexual experience in childhood had been hospitalized an average of 1.7 days in the previous year—almost twice the rate of the others.

The team then compared the number of visits to the student health center participants had made during the month prior to the study to the number in the month following it. The group that had written about both the facts and the emotions related to their trauma clearly benefited the most: They had a 50 percent drop in doctor visits compared with the other two groups. Writing about their deepest thoughts and feelings about traumas had improved their mood and resulted in a more optimistic attitude and better physical health.

When the students themselves were asked to assess the study, they focused on how it had increased their self-understanding: "It helped me think about what I felt during those times. I never realized how it affected me before." "I had to think and resolve past experiences. One result of the experiment was peace of mind. To have to write about emotions and feelings helped me understand how I felt and why."¹⁵

In a subsequent study Pennebaker asked half of a group of seventy-two students to talk into a tape recorder about the most traumatic experience of their lives; the other half discussed their plans for the rest of the day. As they spoke, researchers monitored their physiological reactions: blood pressure, heart rate, muscle tension, and hand temperature.¹⁶ This study had similar results: Those who allowed themselves to feel their emotions showed significant physiological changes, both immediate and long term. During their confessions blood pressure, heart rate, and other autonomic functions increased, but afterward their arousal fell to levels below where they had been at the start of the study. The drop in blood pressure could still be measured six weeks after the experiment ended.

It is now widely accepted that stressful experiences—whether divorce or final exams or loneliness—have a negative effect on immune function, but this was a highly controversial notion at the time of Pennebaker's study. Building on his protocols, a team of researchers at the Ohio State University College of Medicine compared two groups of students who wrote either about a personal trauma or about a superficial topic.¹⁷ Again, those who wrote about personal

traumas had fewer visits to the student health center, and their improved health correlated with improved immune function, as measured by the action of T lymphocytes (natural killer cells) and other immune markers in the blood. This effect was most obvious directly after the experiment, but it could still be detected six weeks later. Writing experiments from around the world, with grade school students, nursing home residents, medical students, maximum-security prisoners, arthritis sufferers, new mothers, and rape victims, consistently show that writing about upsetting events improves physical and mental health.

Another aspect of Pennebaker's studies caught my attention: When his subjects talked about intimate or difficult issues, they often changed their tone of voice and speaking style. The differences were so striking that Pennebaker wondered if he had mixed up his tapes. For example, one woman described her plans for the day in a childlike, high-pitched voice, but a few minutes later, when she described stealing one hundred dollars from an open cash register, both the volume and pitch of her voice became so much lower that she sounded like an entirely different person. Alterations in emotional states were also reflected in the subjects' handwriting. As participants changed topics, they might move from cursive to block letters and back to cursive; there were also variations in the slant of the letters and in the pressure of their pens.

So many times I find parts of
myself fighting each other. It (the
abuse) happened, it didn't happen - if it
did happen how can I live with a truth
that is so horrific.

with my left hand

Listen to me. I want to

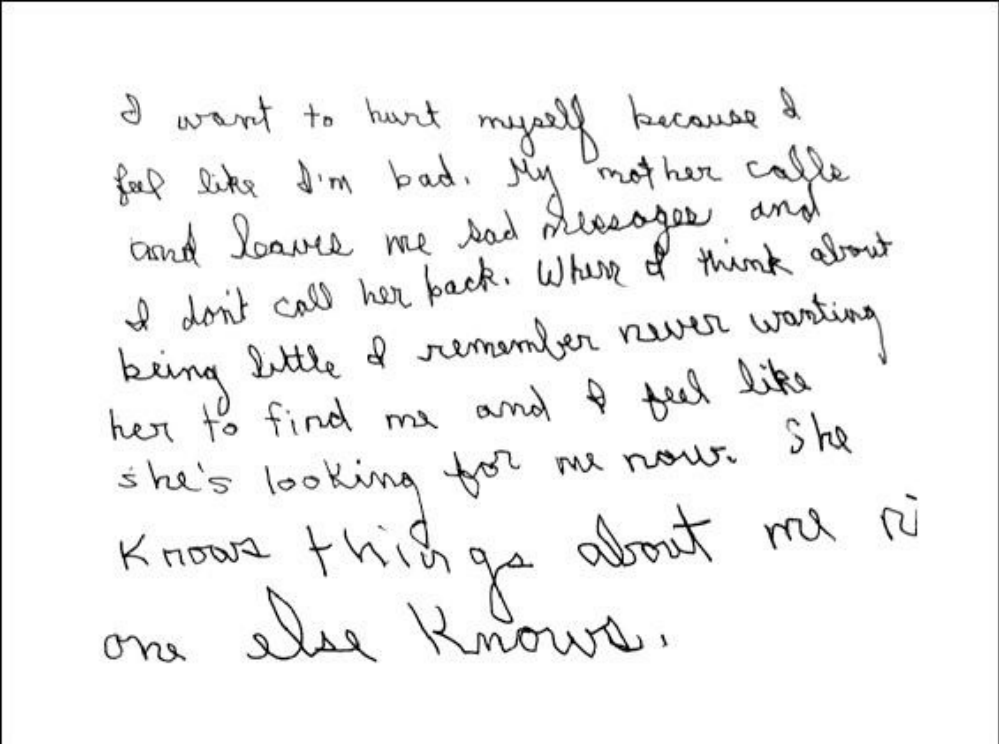
tell you and I want

you to listen to you

think you're too good to

hear it. I hear what

Such changes are called "switching" in clinical practice, and we see them often in individuals with trauma histories. Patients activate distinctly different emotional and physiological states as they move from one topic to another. Switching manifests not only as remarkably different vocal patterns but also in different facial expressions and body movements. Some patients even appear to change their personal identity, from timid to forceful and aggressive or from anxiously compliant to starkly seductive. When they write about their deepest fears, their handwriting often becomes more childlike and primitive.



I want to hurt myself because I
feel like I'm bad. My mother calls
and leaves me bad messages and
I don't call her back. When I think about
being little I remember never wanting
her to find me and I feel like
she's looking for me now. She
knows things about me no
one else knows.

If patients who present in such dramatically different states are treated as fakes, or if they are told to stop showing their unpredictably annoying parts, they are likely to become mute. They probably will continue to seek help, but after they have been silenced they will transmit their cries for help not by talking but by acting: with suicide attempts, depression, and rage attacks. As we will see in chapter 17, they will improve only if both patient and therapist appreciate the roles that these different states have played in their survival.

ART, MUSIC, AND DANCE

There are thousands of art, music, and dance therapists who do beautiful work with abused children, soldiers suffering from PTSD, incest victims, refugees, and torture survivors, and numerous accounts attest to the effectiveness of expressive therapies.¹⁸ However, at this point we know very little about how they work or about the specific aspects of traumatic stress they address, and it would present an enormous logistical and financial challenge to do the research necessary to establish their value scientifically.

The capacity of art, music, and dance to circumvent the speechlessness that comes with terror may be one reason they are used as trauma treatments in cultures around the world. One of the few systematic studies to compare nonverbal artistic expression with writing was done by James Pennebaker and Anne Krantz, a San Francisco dance and movement therapist.¹⁹ One-third of a group of sixty-four students was asked to disclose a personal traumatic experience through expressive body movements for at least ten minutes a day for three consecutive days and then to write about it for another ten minutes. A second group danced but did not write about their trauma, and a third group engaged in a routine exercise program. Over the three following

months members of all groups reported that they felt happier and healthier. However, only the expressive movement group that also wrote showed objective evidence: better physical health and an improved grade-point average. (The study did not evaluate specific PTSD symptoms.) Pennebaker and Krantz concluded: “The mere expression of the trauma is not sufficient. Health does appear to require translating experiences into language.”

However, we still do not know whether this conclusion—that language is essential to healing—is, in fact, always true. Writing studies that have focused on PTSD symptoms (as opposed to general health) have been disappointing. When I discussed this with Pennebaker, he cautioned me that most writing studies of PTSD patients have been done in group settings where participants were expected to share their stories. He reiterated the point I’ve made above—that the object of writing is to write to yourself, to let your self know what you have been trying to avoid.

THE LIMITS OF LANGUAGE

Trauma overwhelms listeners as well as speakers. In *The Great War in Modern Memory*, his masterful study of World War I, Paul Fussell comments brilliantly on the zone of silence that trauma creates:

One of the cruxes of war . . . is the collision between events and the language available—or thought appropriate—to describe them. . . . Logically there is no reason why the English language could not perfectly well render the actuality of . . . warfare: it is rich in terms like *blood, terror, agony, madness, shit, cruelty, murder, sell-out, pain and hoax*, as well as phrases like *legs blown off, intestines gushing out over his hands, screaming all night, bleeding to death from the rectum*, and the like. . . . The problem was less one of “language” than of gentility and optimism. . . . The real reason [that soldiers fall silent] is that soldiers have discovered that no one is very interested in the bad news they have to report. What listener wants to be torn and shaken when he doesn’t have to be? We have made *unspeakable* mean indescribable: it really means *nasty*.²⁰

Talking about painful events doesn’t necessarily establish community—often quite the contrary. Families and organizations may reject members who air the dirty laundry; friends and family can lose patience with people who get stuck in their grief or hurt. This is one reason why trauma victims often withdraw and why their stories become rote narratives, edited into a form least likely to provoke rejection.

It is an enormous challenge to find safe places to express the pain of trauma, which is why survivor groups like Alcoholics Anonymous, Adult Children of Alcoholics, Narcotics Anonymous, and other support groups can be so critical. Finding a responsive community in which to tell your truth makes recovery possible. That is also why survivors need professional therapists who are trained to listen to the agonizing details of their lives. I recall the first time a veteran told me about killing a child in Vietnam. I had a vivid flashback to when I was about seven years old and my father told me that a child next door had been beaten to death by Nazi soldiers in front of our house for showing a lack of respect. My reaction to the veteran’s confession was too much to bear, and I had to end the session. That is why therapists need to

have done their own intensive therapy, so they can take care of themselves and remain emotionally available to their patients, even when their patients' stories arouse feelings of rage or revulsion.

A different problem arises when trauma victims themselves become literally speechless—when the language area of the brain shuts down.²¹ I have seen this shutdown in the courtroom in many immigration cases and also in a case brought against a perpetrator of mass slaughter in Rwanda. When asked to testify about their experiences, victims often become so overwhelmed that they are barely able to speak or are hijacked into such panic that they can't clearly articulate what happened to them. Their testimony is often dismissed as being too chaotic, confused, and fragmented to be credible.

Others try to recount their history in a way that keeps them from being triggered. This can make them come across as evasive and unreliable witnesses. I have seen dozens of legal cases dismissed because asylum seekers were unable to give coherent accounts of their reasons for fleeing. I've also known numerous veterans whose claims were denied by the Veterans Administration because they could not tell precisely what had happened to them.

Confusion and mutism are routine in therapy offices: We fully expect that our patients will become overwhelmed if we keep pressing them for the details of their story. For that reason we've learned to "pendulate" our approach to trauma, to use a term coined by my friend Peter Levine. We don't avoid confronting the details, but we teach our patients how to safely dip one toe in the water and then take it out again, thus approaching the truth gradually.

We start by establishing inner "islands of safety" within the body.²² This means helping patients identify parts of the body, postures, or movements where they can ground themselves whenever they feel stuck, terrified, or enraged. These parts usually lie outside the reach of the vagus nerve, which carries the messages of panic to the chest, abdomen, and throat, and they can serve as allies in integrating the trauma. I might ask a patient if her hands feel okay, and if she says yes, I'll ask her to move them, exploring their lightness and warmth and flexibility. Later, if I see her chest tighten and her breath almost disappear, I can stop her and ask her to focus on her hands and move them, so that she can feel herself as separate from the trauma. Or I might ask her to focus on her out breath and notice how she can change it, or ask her to lift her arms up and down with each breath—a qigong movement.

For some patients tapping acupressure points is a good anchor.²³ I ask others to feel the weight of their body in the chair or to plant their feet on the floor. I might ask a patient who is collapsing into silence to see what happens when he sits up straight. Some patients discover their own islands of safety—they begin to "get" that they can create body sensations to counterbalance feeling out of control. This sets the stage for trauma resolution: pendulating between states of exploration and safety, between language and body, between remembering the past and feeling alive in the present.

DEALING WITH REALITY

Dealing with traumatic memories is, however, just the beginning of treatment. Numerous studies have found that people with PTSD have more general problems with focused attention and with learning new information.²⁴ Alexander McFarlane did a simple test: He asked a group of people to name as many words beginning with the letter *B* as they could in one minute. Normal subjects

averaged fifteen words; those with PTSD averaged three or four. Normal subjects hesitated when they saw threatening words like “blood,” “wound,” or “rape”; McFarlane’s PTSD subjects reacted just as hesitantly to ordinary words like “wool,” “ice cream,” and “bicycle.”²⁵

After a while most people with PTSD don’t spend a great deal of time or effort on dealing with the past—their problem is simply making it through the day. Even traumatized patients who are making real contributions in teaching, business, medicine, or the arts and who are successfully raising their children expend a lot more energy on the everyday tasks of living than do ordinary mortals.

Yet another pitfall of language is the illusion that our thinking can easily be corrected if it doesn’t “make sense.” The “cognitive” part of cognitive behavioral therapy focuses on changing such “dysfunctional thinking.” This is a top-down approach to change in which the therapist challenges or “reframes” negative cognitions, as in “Let’s compare your feelings that you are to blame for your rape with the actual facts of the matter” or “Let’s compare your terror of driving with the statistics about road safety today.”

I’m reminded of the distraught woman who once came to our clinic asking for help with her two-month-old because the baby was “so selfish.” Would she have benefited from a fact sheet on child development or an explanation of the concept of altruism? Such information would be unlikely to help her until she gained access to the frightened, abandoned parts of herself—the parts expressed by her terror of dependence.

There is no question traumatized people have irrational thoughts: “I was to blame for being so sexy.” “The other guys weren’t afraid—they’re real men.” “I should have known better than to walk down that street.” It’s best to treat those thoughts as cognitive flashbacks—you don’t argue with them any more than you would argue with someone who keeps having visual flashbacks of a terrible accident. They are residues of traumatic incidents: thoughts they were thinking when, or shortly after, the traumas occurred that are reactivated under stressful conditions. A better way to treat them is with EMDR, the subject of the following chapter.

BECOMING SOME BODY

The reason people become overwhelmed by telling their stories, and the reason they have cognitive flashbacks, is that their brains have changed. As Freud and Breuer observed, trauma does not simply act as a releasing agent for symptoms. Rather, “the psychical trauma—or more precisely the memory of the trauma—acts like a foreign body which long after its entry must continue to be regarded as an agent that still is at work.”²⁶ Like a splinter that causes an infection, it is the body’s response to the foreign object that becomes the problem more than the object itself.

Modern neuroscience solidly supports Freud’s notion that many of our conscious thoughts are complex rationalizations for the flood of instincts, reflexes, motives, and deep-seated memories that emanate from the unconscious. As we have seen, trauma interferes with the proper functioning of brain areas that manage and interpret experience. A robust sense of self—one that allows a person to state confidently, “This is what I think and feel” and “This is what is going on with me”—depends on a healthy and dynamic interplay among these areas.

Almost every brain-imaging study of trauma patients finds abnormal activation of the insula. This part of the brain integrates and interprets the input from the internal organs—including our

muscles, joints, and balance (proprioceptive) system—to generate the sense of being embodied. The insula can transmit signals to the amygdala that trigger fight/flight responses. This does not require any cognitive input or any conscious recognition that something has gone awry—you just feel on edge and unable to focus or, at worst, have a sense of imminent doom. These powerful feelings are generated deep inside the brain and cannot be eliminated by reason or understanding.

Being constantly assaulted by, but consciously cut off from, the origin of bodily sensations produces alexithymia: not being able to sense and communicate what is going on with you. Only by getting in touch with your body, by connecting viscerally with your self, can you regain a sense of who you are, your priorities and values. Alexithymia, dissociation, and shutdown all involve the brain structures that enable us to focus, know what we feel, and take action to protect ourselves. When these essential structures are subjected to inescapable shock, the result may be confusion and agitation, or it may be emotional detachment, often accompanied by out-of-body experiences—the feeling you’re watching yourself from far away. In other words trauma makes people feel like either *some body else*, or like *no body*. In order to overcome trauma, you need help to get back in touch with *your body*, with *your Self*.

There is no question that language is essential: Our sense of Self depends on being able to organize our memories into a coherent whole.²⁷ This requires well-functioning connections between the conscious brain and the self system of the body—connections that often are damaged by trauma. The full story can be told only after those structures are repaired and after the groundwork has been laid: after no body becomes some body.

CHAPTER 15

LETTING GO OF THE PAST: EMDR

Was it a vision, or a waking dream?
Fled is that music;—Do I wake or sleep?

—John Keats

David, a middle-aged contractor, came to see me because his violent rage attacks were making his home a living hell. During our first session he told me a story about something that had happened to him the summer he was twenty-three. He was working as a lifeguard, and one afternoon a group of kids were roughhousing in the pool and drinking beer. David told them alcohol was not allowed. In response the boys attacked him, and one of them took out his left eye with a broken beer bottle. Thirty years later he still had nightmares and flashbacks about the stabbing.

He was merciless in his criticisms of his own teenage son and often yelled at him for the slightest infraction, and he simply could not bring himself to show any affection toward his wife. On some level he felt that the tragic loss of his eye gave him permission to abuse other people, but he also hated the angry, vengeful person he had become. He had noticed that his efforts to manage his rage made him chronically tense, and he wondered if his fear of losing control had made love and friendship impossible.

During his second visit I introduced a procedure called eye movement desensitization and reprocessing (EMDR). I asked David to go back to the details of his assault and bring to mind his images of the attack, the sounds he had heard, and the thoughts that had gone through his mind. “Just let those moments come back,” I told him.

I then asked him to follow my index finger as I moved it slowly back and forth about twelve inches from his right eye. Within seconds a cascade of rage and terror came to the surface, accompanied by vivid sensations of pain, blood running down his cheek, and the realization that he couldn’t see. As he reported these sensations, I made an occasional encouraging sound and kept moving my finger back and forth. Every few minutes I stopped and asked him to take a deep breath. Then I asked him to pay attention to what was now on his mind, which was a fight he had had in school. I told him to notice that and to stay with that memory. Other memories emerged, seemingly at random: looking for his assailants everywhere, wanting to hurt them,

getting into barroom brawls. Each time he reported a new memory or sensation, I urged him to notice what was coming to mind and resumed the finger movements.

At the end of that visit he looked calmer and visibly relieved. He told me that the memory of the stabbing had lost its intensity—it was now something unpleasant that had happened a long time ago. “It really sucked,” he said thoughtfully, “and it kept me off-kilter for years, but I’m surprised what a good life I eventually was able to carve out for myself.”

Our third session, the following week, dealt with the aftermath of the trauma: how he had used drugs and alcohol for years to cope with his rage. As we repeated the EMDR sequences, still more memories arose. David remembered talking with a prison guard he knew about having his incarcerated assailant killed and then changing his mind. Recalling this decision was profoundly liberating: He had come to see himself as a monster who was barely in control, but realizing that he’d turned away from revenge put him back in touch with a mindful, generous side of himself.

Next he spontaneously realized he was treating his son the way he had felt toward his teenaged attackers. As our session ended, he asked if I could meet with him and his family so he could tell his son what had happened and ask for his forgiveness. At our fifth and final session he reported that he was sleeping better and said that for the first time in his life he felt a sense of inner peace. A year later he called to report not only that he and his wife had grown closer and had started to practice yoga together but also that he laughed more and took real pleasure in his gardening and woodworking.

LEARNING ABOUT EMDR

My experience with David is one of many I have had over the past two decades in which EMDR helped to make painful re-creations of the trauma a thing of the past. My introduction to this method came through Maggie, a spunky young psychologist who ran a halfway house for sexually abused girls. Maggie got into one confrontation after another, clashing with nearly everybody—except the thirteen- and fourteen-year-old girls she cared for. She did drugs, had dangerous and often violent boyfriends, had frequent altercations with her bosses, and moved from place to place because she could not tolerate her roommates (nor they her). I never understood how she had mobilized enough stability and concentration to earn a PhD in psychology from a reputable graduate school.

Maggie had been referred to a therapy group I was running for women with similar problems. During her second meeting she told us that her father had raped her twice, once when she was five years old and once when she was seven. She was convinced it had been her fault. She loved her daddy, she explained, and she must have been so seductive that he could not control himself. Listening to her I thought, “She might not blame her father, but she sure is blaming just about everybody else”—including her previous therapists for not helping her get better. Like many trauma survivors, she told one story with words and another in her actions, in which she kept replaying various aspects of her trauma.

Then one day Maggie came to the group eager to discuss a remarkable experience she’d had the previous weekend at an EMDR training for professionals. At that time I’d heard only that EMDR was a new fad in which therapists wiggled their fingers in front of patients’ eyes. To me and my academic colleagues, it sounded like yet another of the crazes that have always plagued

psychiatry, and I was convinced that this would turn out to be another of Maggie's misadventures.

Maggie told us that during her EMDR session she had vividly remembered her father's rape when she was seven—remembered it from inside her child's body. She could feel physically how small she was; she could feel her father's huge body on top of her and could smell the alcohol on his breath. And yet, she told us, even as she relived the incident she was able to observe it from the point of view of her twenty-nine-year-old self. She burst into tears: "I was such a little girl. How could a huge man do this to a little girl?" She cried for a while and then said: "It's over now. I now know what happened. It wasn't my fault. I was a little girl and there was nothing I could do to keep him from molesting me."

I was astounded. I had been looking for a long time for a way to help people revisit their traumatic past without becoming retraumatized. It seemed that Maggie had had an experience as lifelike as a flashback and yet had not been hijacked by it. Could EMDR make it safe for people to access the imprints of trauma? Could it then transform them into memories of events that had happened far in the past?

Maggie had a few more EMDR sessions and remained in our group long enough for us to see how she changed. She was much less angry, but she kept that sardonic sense of humor that I enjoyed so much. A few months later she got involved with a very different kind of man than she'd ever been attracted to before. She left the group, announcing that she'd resolved her trauma, and I decided it was time for me to get trained in EMDR.

EMDR: FIRST EXPOSURES

Like many scientific advances, EMDR originated with a chance observation. One day in 1987 psychologist Francine Shapiro was walking through a park, preoccupied with some painful memories, when she noticed that rapid eye movements produced a dramatic relief from her distress. How could a major treatment modality grow from such a brief experience? How is it possible that such a simple process had not been noted before? Initially skeptical about her observation she subjected her method to years of experimentation and research, gradually building it into a standardized procedure that could be taught and tested in controlled studies.¹

I arrived for my first EMDR training in need of some trauma processing myself. A few weeks earlier the Jesuit priest who was chair of my department at Massachusetts General Hospital had suddenly shut down the Trauma Clinic, leaving us scrambling for a new site and new funds to treat our patients, train our students, and conduct our research. At around the same time, my friend Frank Putnam, who was doing the long-term study of sexually abused girls that I discussed in chapter 10, was fired from the National Institutes of Health and Rick Kluft, the country's foremost expert on dissociation, lost his unit at the Institute of the Pennsylvania Hospital. It might have all been a coincidence, but it felt as if my whole world was under attack.

My distress about the Trauma Clinic seemed like a good test for my EMDR trial. While I was following my partner's fingers with my eyes, a rapid succession of fuzzy childhood scenes came to mind: intense family dinner-table conversations, confrontations with schoolmates during recess, throwing pebbles at a shed window with my older brother—all of them the sort of vivid, floating, "hypnopompic" images we experience when we slumber late on a Sunday morning, then forget the moment we fully awaken.

After about half an hour my fellow trainee and I revisited the scene in which my boss told me that he was closing my clinic. Now I felt resigned: “Okay, it happened, and now it’s time to move on.” I never looked back; the clinic later reconstituted itself and has thrived ever since. Was EMDR the sole reason I was able to let go of my anger and distress? Of course I’ll never know for certain, but my mental journey—through unrelated childhood scenes to putting the episode to rest—was unlike anything I had experienced in talk therapy.

What happened next, when it was my turn to administer EMDR, was even more intriguing. We rotated to a different group, and my new fellow student, whom I’d never met before, told me he wanted to address some painful childhood incidents involving his father, but he did not want to discuss them. I had never worked on anybody’s trauma without knowing “the story,” and I was annoyed and flustered by his refusal to share any details. While I was moving my fingers in front of his eyes, he looked intensely distressed—he began sobbing, and his breathing became rapid and shallow. But each time I asked him the questions that the protocol called for, he refused to tell me what came to his mind.

At the end of our forty-five-minute session, the first thing my colleague said was that he’d found dealing with me so unpleasant that he would never refer a patient to me. Otherwise, he remarked, the EMDR session had resolved the matter of his father’s abuse. While I was skeptical and suspected that his rudeness toward me was a carryover from unresolved feelings toward his father, there was no question that he appeared much more relaxed.

I turned to my EMDR trainer, Gerald Puk, and told him how flummoxed I was. This man clearly did not like me, and had looked profoundly distressed during the EMDR session, but now he was telling me that his long-standing misery was gone. How could I possibly know what he had or had not resolved if he was unwilling to tell me what had happened during the session?

Gerry smiled and asked if by chance I had become a mental health professional in order to solve some of my own personal issues. I confirmed that most people who knew me thought that might be the case. Then he asked if I found it meaningful when people told me their trauma stories. Again, I had to agree with him. Then he said: “You know, Bessel, maybe you need to learn to put your voyeuristic tendencies on hold. If it’s important for you to hear trauma stories, why don’t you go to a bar, put a couple of dollars on the table, and say to your neighbor, ‘I’ll buy you a drink if you tell me your trauma story.’ But you really need to know the difference between your desire to hear stories and your patient’s internal process of healing.” I took Gerry’s admonition to heart and ever since have enjoyed repeating it to my students.

I left my EMDR training preoccupied with three issues that fascinate me to this day:

- EMDR loosens up something in the mind/brain that gives people rapid access to loosely associated memories and images from their past. This seems to help them put the traumatic experience into a larger context or perspective.
- People may be able to heal from trauma without talking about it. EMDR enables them to observe their experiences in a new way, without verbal give-and-take with another person.
- EMDR can help even if the patient and the therapist do not have a trusting relationship. This was particularly intriguing because trauma, understandably, rarely leaves people with an open, trusting heart.

In the years since, I have done EMDR with patients who spoke Swahili, Mandarin, and

Breton, all languages in which I can say only, “Notice that,” the key EMDR instruction. (I always had a translator available, but primarily to explain the steps of the process.) Because EMDR doesn’t require patients to speak about the intolerable or explain to a therapist why they feel so upset, it allows them to stay fully focused on their internal experience, with sometimes extraordinary results.

STUDYING EMDR

The Trauma Clinic was saved by a manager at the Massachusetts Department of Mental Health who had followed our work with children and now asked us to take on the task of organizing the community trauma response team for the Boston area. That was enough to cover our basic operations, and the rest was supplied by an energetic staff who loved what we were doing—including the newly discovered power of EMDR to cure some of the patients whom we’d been unable to help before.

My colleagues and I began to show one another videotapes of our EMDR sessions with PTSD patients, which enabled us to observe dramatic week-by-week improvements. We then started to formally measure their progress on a standard PTSD rating scale. We also arranged with Elizabeth Matthew, a young neuroimaging specialist at the New England Deaconess Hospital, to have twelve patients’ brains scanned before and after their treatment. After only three EMDR sessions eight of the twelve had shown a significant decrease in their PTSD scores. On their scans we could see a sharp increase in prefrontal lobe activation after treatment, as well as much more activity in the anterior cingulate and the basal ganglia. This shift could account for the difference in how they now experienced their trauma.

One man reported: “I remember it as though it was a real memory, but it was more distant. Typically, I drowned in it, but this time I was floating on top. I had the feeling that I was in control.” A woman told us: “Before, I felt each and every step of it. Now it is like a whole, instead of fragments, so it is more manageable.” The trauma had lost its immediacy and become a story about something that happened a long time ago.

We subsequently secured funding from the National Institute of Mental Health to compare the effects of EMDR with standard doses of Prozac or a placebo.² Of our eighty-eight subjects thirty received EMDR, twenty-eight Prozac, and the rest the sugar pill. As often happens, the people on placebo did well. After eight weeks their 42 percent improvement was greater than that for many other treatments that are promoted as “evidence based.”

The group on Prozac did slightly better than the placebo group, but barely so. This is typical of most studies of drugs for PTSD: Simply showing up brings about a 30 percent to 42 percent improvement; when drugs work, they add an additional 5 percent to 15 percent. However, the patients on EMDR did substantially better than those on either Prozac or the placebo: After eight EMDR sessions one in four were completely cured (their PTSD scores had dropped to negligible levels), compared with one in ten of the Prozac group. But the real difference occurred over time: When we interviewed our subjects eight months later, 60 percent of those who had received EMDR scored as being completely cured. As the great psychiatrist Milton Erickson said, once you kick the log, the river will start flowing. Once people started to integrate their traumatic memories, they spontaneously continued to improve. In contrast, all those who had taken Prozac relapsed when they went off the drug.

This study was significant because it demonstrated that a focused, trauma-specific therapy for PTSD like EMDR could be much more effective than medication. Other studies have confirmed that if patients take Prozac or related drugs like Celexa, Paxil, and Zoloft, their PTSD symptoms often improve, but only as long as they keep taking them. This makes drug treatment much more expensive in the long run. (Interestingly, despite Prozac's status as a major antidepressant, in our study EMDR also produced a greater reduction in depression scores than taking the antidepressant.)

Another key finding of our study: Adults with histories of childhood trauma responded very differently to EMDR from those who were traumatized as adults. At the end of eight weeks, almost half of the adult-onset group that received EMDR scored as completely cured, while only 9 percent of the child-abuse group showed such pronounced improvement. Eight months later the cure rate was 73 percent for the adult-onset group, compared with 25 percent for those with histories of child abuse. The child-abuse group had small but consistently positive responses to Prozac.

These results reinforce the findings that I reported in chapter 9: Chronic childhood abuse causes very different mental and biological adaptations than discrete traumatic events in adulthood. EMDR is a powerful treatment for stuck traumatic memories, but it doesn't necessarily resolve the effects of the betrayal and abandonment that accompany physical or sexual abuse in childhood. Eight weeks of therapy of any kind is rarely sufficient to resolve the legacy of long-standing trauma.

As of 2014 our EMDR study had the most positive outcome of any published study of people who developed their PTSD in reaction to a traumatic event as an adult. But despite these results, and those of dozens of other studies, many of my colleagues continue to be skeptical about EMDR—perhaps because it seems too good to be true, too simple to be so powerful. I surely can understand that sort of skepticism—EMDR is an unusual procedure. Interestingly, in the first solid scientific study using EMDR in combat veterans with PTSD, EMDR was expected to do so poorly that it was included as the control condition for comparison with biofeedback-assisted relaxation therapy. To the researchers' surprise, twelve sessions of EMDR turned out to be the more effective treatment.³ EMDR has since become one of the treatments for PTSD sanctioned by the Department of Veterans Affairs.

IS EMDR A FORM OF EXPOSURE THERAPY?

Some psychologists have hypothesized that EMDR actually desensitizes people to the traumatic material and thus is related to exposure therapy. A more accurate description would be that it *integrates* the traumatic material. As our research showed, after EMDR people thought of the trauma as a coherent event in the past, instead of experiencing sensations and images divorced from any context.

Memories evolve and change. Immediately after a memory is laid down, it undergoes a lengthy process of integration and reinterpretation—a process that automatically happens in the mind/brain without any input from the conscious self. When the process is complete, the experience is integrated with other life events and stops having a life of its own.⁴ As we have seen, in PTSD this process fails and the memory remains stuck—undigested and raw.

Unfortunately, few psychologists are taught during their training how the memory-

processing system in the brain works. This omission can lead to misguided approaches to treatment. In contrast to phobias (such as a spider phobia, which is based on a specific irrational fear), posttraumatic stress is the result of a fundamental reorganization of the central nervous system based on having experienced an actual threat of annihilation, (or seeing someone else being annihilated), which reorganizes self experience (as helpless) and the interpretation of reality (the entire world is a dangerous place).

During exposure patients initially become extremely upset. As they revisit the traumatic experience, they show sharp increases in their heart rate, blood pressure, and stress hormones. But if they manage to stay with the treatment and keep reliving their trauma, they slowly become less reactive and less prone to disintegrate when they recall the event. As a result, they get lower scores on their PTSD ratings. However, as far as we know, simply exposing someone to the old trauma does not integrate the memory into the overall context of their lives, and it rarely restores them to the level of joyful engagement with people and pursuits they had prior to the trauma.

In contrast, EMDR, as well as the treatments discussed in subsequent chapters—internal family systems, yoga, neurofeedback, psychomotor therapy, and theater—focus not only on regulating the intense memories activated by trauma but also on restoring a sense of agency, engagement, and commitment through ownership of body and mind.

PROCESSING TRAUMA WITH EMDR

Kathy was a twenty-one-year-old student at a local university. When I first met her, she looked terrified. She had been in psychotherapy for three years with a therapist whom she trusted and felt understood by but with whom she was not making any progress. After her third suicide attempt her university health service referred her to me, hoping that the new technique I'd told them about could help her.

Like several of my other traumatized patients, Kathy was able to become completely absorbed in her studies: When she read a book or wrote a research paper, she could block out everything else about her life. This enabled her to be a competent student, even when she had no idea how to establish a loving relationship with herself, let alone with an intimate partner.

Kathy told me that her father had used her for many years for child prostitution, which would normally have made me think of using EMDR only as an adjunctive therapy. However, she turned out to be an EMDR virtuoso and recovered completely after eight sessions, the shortest time thus far in my experience for someone with a history of severe childhood abuse. Those sessions took place fifteen years ago, and I recently met with her to discuss the pros and cons of her adopting a third child. She was a delight: smart, funny, and joyfully engaged with her family and her work as an assistant professor of child development.

I'd like to share my notes on Kathy's fourth EMDR treatment, not only to demonstrate what typically happens in such a session but also to reveal the human mind in action as it integrates a traumatic experience. No brain scan, blood test, or rating scale can measure this, and even a video recording can convey only a shadow of how EMDR can unleash the imaginative powers of the mind.

Kathy sat with her chair at a forty-five-degree angle to mine, so that we were about four feet apart. I asked her to bring a particularly painful memory to mind and encouraged her to recall what she had heard, saw, thought, and felt in her body as it took place. (My records do not show

whether she told me what the particular memory was; my guess is probably not, since I did not write it down.)

I asked her whether she was now “in the memory,” and when she said yes, I asked her how real it felt on a scale of one to ten. About a nine, she said. Then I asked her to follow my moving finger with her eyes. From time to time, after completing a set of about twenty-five eye movements, I might say: “Take a deep breath,” followed by: “What do you get now?” or “What comes to mind now?” Kathy would then tell me what she was thinking. Whenever her tone of voice, facial expression, body movements, or breathing patterns indicated that this was an emotionally significant theme, I would say, “Notice that,” and start another set of eye movements, during which she did not speak. Other than uttering those few words, I remained silent for the next forty-five minutes.

Here is the association Kathy reported after the first eye-movement sequence: “I realize that I have scars—from when he tied my hands behind my back. The other scar is when he marked me to claim me as his, and there [she points] are bite marks.” She looked stunned but surprisingly calm as she recalled, “I remember being doused in gasoline—he took Polaroid pictures of me—and then I was submerged in water. I was gang raped by my father and two of his friends; I was tied to a table; I remember them raping me with Budweiser bottles.”

My stomach was clenching, but I didn’t comment beyond asking Kathy to keep those memories in mind. After about thirty more back-and-forth movements I stopped when I saw that she was smiling. When I asked what she was thinking, she said, “I was in a karate class; it was great! I really kicked butt! I saw them backing off. I yelled, ‘Don’t you see you are hurting me? I am not your girlfriend.’” I said, “Stay there,” and began the next sequence. When it ended, Kathy said: “I have an image of two me’s—this smart, pretty little girl . . . and that little slut. All these women who could not take care of themselves or me or their men—leaving it up to me to service all these men.” She started to sob during the next sequence, and when we stopped, she said: “I saw how little I was—the brutalization of the little girl. It was not my fault.” I nodded and said, “That’s right—stay there.” The next round ended with Kathy reporting: “I’m picturing my life now—my big me holding my little me—saying, ‘You are safe now.’” I nodded encouragingly and continued.

The images kept coming: “I have pictures of a bulldozer flattening the house I grew up in. It’s over!” Then Kathy started on a different track: “I am thinking about how much I like Jeffrey [a boy in one of her classes]. Thinking that he might not want to hang out with me. Thinking I can’t handle it. I have never been someone’s girlfriend before and I don’t know how.” I asked her what she thought she needed to know and began the next sequence. “Now, there is a person who just wants to be with me—it is too simple. I don’t know how to just be myself around men. I am petrified.”

As she tracked my finger, Kathy started to sob. When I stopped, she told me: “I had an image of Jeffrey and me sitting in the coffeehouse. My father comes in the door. He starts screaming at the top of his lungs and he is wielding an ax; he says, ‘I told you that you belong to me.’ He puts me on top of the table—then he rapes me, and then he rapes Jeffrey.” She was crying hard now. “How can you be open with somebody when you have visions of your dad raping you and then raping us both?” I wanted to comfort her, but I knew it was more important to keep her associations moving. I asked her to focus on what she felt in her body: “I feel it in my forearms, in my shoulders, and my right chest. I just want to be held.” We continued the EMDR and when we stopped, Kathy looked relaxed. “I heard Jeffrey say it’s okay, that he was sent here

to take care of me. And that it was not anything that I did and that he just wants to be with me for my sake.” Again I asked what she felt in her body. “I feel really peaceful. A little bit shaky—like when you’re using new muscles. Some relief. Jeffrey knows all this already. I feel like I’m alive and that it is all over. But I am afraid that my father has another little girl, and that makes me very, very sad. I want to save her.”

But as we continued the trauma returned, together with other thoughts and images: “I need to throw up. . . . I have intrusions of lots of smells—bad cologne, alcohol, vomit.” A few minutes later Kathy was crying profusely: “I really feel my mom here now. It feels like she wants me to forgive her. I have the sense that the same thing happened to her—she is apologizing to me over and over. She’s telling me that this happened to her—that it was my grandfather. She’s also telling me that my grandmother is really sorry for not being there to protect me.” I kept asking her to take deep breaths and stay with whatever was coming up.

At the end of the next sequence Kathy said: “I feel like it’s over. I felt my grandmother holding me at my current age—telling me that she is so sorry she married my grandfather. That she and my mom are making sure that it stops here.” After one final EMDR sequence Kathy was smiling: “I have an image of pushing my father out of the coffeehouse and Jeffrey locking the door behind him. He stands outside. You can see him through the glass—everybody’s making fun of him.”

With the help of EMDR Kathy was able to integrate the memories of her trauma and call on her imagination to help her lay them to rest, arriving at a sense of completion and control. She did so with minimal input from me and without any discussion of the particulars of her experiences. (I never felt a reason to question their accuracy; her experiences were real to her, and my job was to help her deal with them in the present.) The process freed something in her mind/brain to activate new images, feelings, and thoughts; it was as if her life force emerged to create new possibilities for her future.⁵

As we’ve seen, traumatic memories persist as split-off, unmodified images, sensations, and feelings. To my mind the most remarkable feature of EMDR is its apparent capacity to activate a series of unsought and seemingly unrelated sensations, emotions, images, and thoughts in conjunction with the original memory. This way of reassembling old information into new packages may be just the way we integrate ordinary, nontraumatic day-to-day experiences.

EXPLORING THE SLEEP CONNECTION

Shortly after learning about EMDR I was asked to speak about my work at the sleep laboratory headed by Allan Hobson at the Massachusetts Mental Health Center. Hobson (together with his teacher, Michel Jouvet)⁶ was famous for discovering where dreams are generated in the brain, and one of his research assistants, Robert Stickgold, was just then beginning to explore the function of dreams. I showed the group a videotape of a patient who had suffered from severe PTSD for thirteen years after a terrible car accident and who, in only two sessions of EMDR, had transformed from a helpless panicked victim into a confident, assertive woman. Bob was fascinated.

A few weeks later a friend of Stickgold’s family became so depressed after the death of her cat that she had to be hospitalized. The attending psychiatrist concluded that the cat’s death had triggered unresolved memories of the death of the woman’s mother when she was twelve, and he

connected her with Roger Solomon, a well-known EMDR trainer, who treated her successfully. Afterward she called Stickgold and said, “Bob, you have to study this. It’s really strange—it has to do with your brain, not your mind.”

Soon afterward an article appeared in the journal *Dreaming* suggesting that EMDR was related to rapid eye movement (REM) sleep—the phase of sleep in which dreaming occurs.⁷ Research had already shown that sleep, and dream sleep in particular, plays a major role in mood regulation. As the article in *Dreaming* pointed out, the eyes move rapidly back and forth in REM sleep, just as they do in EMDR. Increasing our time in REM sleep reduces depression, while the less REM sleep we get, the more likely we are to become depressed.⁸

Of course, PTSD is notoriously associated with disturbed sleep, and self-medication with alcohol or drugs further disrupts REM sleep. During my time at the VA my colleagues and I had found that the veterans with PTSD frequently woke themselves up soon after going into REM sleep⁹—probably because they had activated a trauma fragment during a dream.¹⁰ Other researchers have also noticed this phenomenon, but thought that it was irrelevant to understanding PTSD.¹¹

Today we know that both deep sleep and REM sleep play important roles in how memories change over time. The sleeping brain reshapes memory by increasing the imprint of emotionally relevant information while helping irrelevant material fade away.¹² In a series of elegant studies Stickgold and his colleagues showed that the sleeping brain can even make sense out of information whose relevance is unclear while we are awake and integrate it into the larger memory system.¹³

Dreams keep replaying, recombining, and reintegrating pieces of old memories for months and even years.¹⁴ They constantly update the subterranean realities that determine what our waking minds pay attention to. And perhaps most relevant to EMDR, in REM sleep we activate more distant associations than in either non-REM sleep or the normal waking state. For example, when subjects are wakened from non-REM sleep and given a word-association test, they give standard responses: hot/cold, hard/soft, etc. Wakened from REM sleep, they make less conventional connections, such as thief/wrong.¹⁵ They also solve simple anagrams more easily after REM sleep. This shift toward activation of distant associations could explain why dreams are so bizarre.¹⁶

Stickgold, Hobson, and their colleagues thus discovered that dreams help to forge new relationships between apparently unrelated memories.¹⁷ Seeing novel connections is the cardinal feature of creativity; as we’ve seen, it’s also essential to healing. The inability to recombine experiences is also one of the striking features of PTSD. While Noam in chapter 4 could imagine a trampoline to save future victims of terrorism, traumatized people are trapped in frozen associations: Anybody who wears a turban will try to kill me; any man who finds me attractive wants to rape me.

Finally, Stickgold suggests a clear link between EMDR and memory processing in dreams: “If the bilateral stimulation of EMDR can alter brain states in a manner similar to that seen during REM sleep then there is now good evidence that EMDR should be able to take advantage of sleep-dependent processes, which may be blocked or ineffective in PTSD sufferers, to allow effective memory processing and trauma resolution.”¹⁸ The basic EMDR instruction, “Hold that image in your mind and just watch my fingers moving back and forth,” may very well reproduce what happens in the dreaming brain. As this book is going to press Ruth Lanius and I are

studying how the brain reacts, both while remembering a traumatic event and an ordinary experience, to saccadic eye movements as subjects lie in an fMRI scanner. Stay tuned.

ASSOCIATION AND INTEGRATION

Unlike conventional exposure treatment, EMDR spends very little time revisiting the original trauma. The trauma itself is certainly the starting point, but the focus is on stimulating and opening up the associative process. As our Prozac/EMDR study showed, drugs can blunt the images and sensations of terror, but they remain embedded in the mind and body. In contrast with the subjects who improved on Prozac—whose memories were merely blunted, not integrated as an event that happened in the past, and still caused considerable anxiety—those who received EMDR no longer experienced the distinct imprints of the trauma: It had become a story of a terrible event that had happened a long time ago. As one of my patients said, making a dismissive hand gesture: “It’s over.”

While we don’t yet know precisely how EMDR works, the same is true of Prozac. Prozac has an effect on serotonin, but whether its levels go up or down, and in which brain cells, and why that makes people feel less afraid, is still unclear. We likewise don’t know precisely why talking to a trusted friend gives such profound relief, and I am surprised how few people seem eager to explore that question.^{[19](#)}

Clinicians have only one obligation: to do whatever they can to help their patients get better. Because of this, clinical practice has always been a hotbed for experimentation. Some experiments fail, some succeed, and some, like EMDR, dialectical behavior therapy, and internal family systems therapy, go on to change the way therapy is practiced. Validating all these treatments takes decades and is hampered by the fact that research support generally goes to methods that have already been proven to work. I am much comforted by considering the history of penicillin: Almost four decades passed between the discovery of its antibiotic properties by Alexander Fleming in 1928 and the final elucidation of its mechanisms in 1965.

CHAPTER 16

LEARNING TO INHABIT YOUR BODY: YOGA

As we begin to re-experience a visceral reconnection with the needs of our bodies, there is a brand new capacity to warmly love the self. We experience a new quality of authenticity in our caring, which redirects our attention to our health, our diets, our energy, our time management. This enhanced care for the self arises spontaneously and naturally, not as a response to a “should.” We are able to experience an immediate and intrinsic pleasure in self-care.

—Stephen Cope, *Yoga and the Quest for the True Self*

The first time I saw Annie she was slumped over in a chair in my waiting room, wearing faded jeans and a purple Jimmy Cliff T-shirt. Her legs were visibly shaking, and she kept staring at the floor even after I invited her in. I had very little information about her, other than that she was forty-seven years old and taught special-needs children. Her body communicated clearly that she was too terrified to engage in conversation—or even to provide routine information about her address or insurance plan. People who are this scared can’t think straight, and any demand to perform will only make them shut down further. If you insist, they’ll run away and you’ll never see them again.

Annie shuffled into my office and remained standing, barely breathing, looking like a frozen bird. I knew we couldn’t do anything until I could help her quiet down. Moving to within six feet of her and making sure she had unobstructed access to the door, I encouraged her to take slightly deeper breaths. I breathed with her and asked her to follow my example, gently raising my arms from my sides as she inhaled and lowering them as I exhaled, a qigong technique that one of my Chinese students had taught me. She stealthily followed my movements, her eyes still fixed on the floor. We spent about half an hour this way. From time to time I quietly asked her to notice how her feet felt against the floor and how her chest expanded and contracted with each breath. Her breath gradually became slower and deeper, her face softened, her spine straightened a bit, and her eyes lifted to about the level of my Adam’s apple. I began to sense the person behind that overwhelming terror. Finally she looked more relaxed and showed me the glimmer of a smile, a recognition that we both were in the room. I suggested that we stop there for now—I’d made enough demands on her—and asked whether she would like to come back a week later. She

nodded and muttered, “You sure are weird.”

As I got to know Annie, I inferred from the notes she wrote and the drawings she gave me that she had been dreadfully abused by both her father and her mother as a very young child. The full story was only gradually revealed, as she slowly learned to call up some of the things that had happened to her without her body being hijacked into uncontrollable anxiety.

I learned that Annie was extraordinarily skilled and caring in her work with special-needs kids. (I tried out quite a few of the techniques she told me about with the children in our own clinic and found them extremely helpful). She would talk freely about the children she taught but would clam up immediately if we verged on her relationships with adults. I knew she was married, but she barely mentioned her husband. She often coped with disagreements and confrontations by making her mind disappear. When she felt overwhelmed she’d cut her arms and breasts with a razor blade. She had spent years in various forms of therapy and had tried many different medications, which had done little to help her deal with the imprints of her horrendous past. She had also been admitted to several psychiatric hospitals to manage her self-destructive behaviors, again without much apparent benefit.

In our early therapy sessions, because Annie could only hint at what she was feeling and thinking before she would shut down and freeze, we focused on calming the physiological chaos within. We used every technique that I had learned over the years, like breathing with a focus on the out breath, which activates the relaxing parasympathetic nervous system. I also taught her to use her fingers to tap a sequence of acupressure points on various parts of her body, a practice often taught under the name EFT (Emotional Freedom Technique), which has been shown to help patients stay within the window of tolerance and often has positive effects on PTSD symptoms.¹

THE LEGACY OF INESCAPABLE SHOCK

Because we can now identify the brain circuits involved in the alarm system, we know, more or less, what was happening in Annie’s brain as she sat that first day in my waiting room: Her smoke detector, her amygdala, had been rewired to interpret certain situations as harbingers of life-threatening danger, and it was sending urgent signals to her survival brain to fight, freeze, or flee. Annie had all these reactions simultaneously—she was visibly agitated and mentally shut down.

As we’ve seen, broken alarm systems can manifest in various ways, and if your smoke detector malfunctions, you cannot trust the accuracy of your perceptions. For example, when Annie started to like me she began to look forward to our meetings, but she would arrive at my office in an intense panic. One day she had a flashback of feeling excited that her father was coming home soon—but later that evening he molested her. For the first time, she realized that her mind automatically associated excitement about seeing someone she loved with the terror of being molested.

Small children are particularly adept at compartmentalizing experience, so that Annie’s natural love for her father and her dread of his assaults were held in separate states of consciousness. As an adult Annie blamed herself for her abuse, because she believed that the loving, excited little girl she once was had led her father on—that she had brought the molestation upon herself. Her rational mind told her this was nonsense, but this belief emanated

from deep within her emotional, survival brain, from the basic wiring of her limbic system. It would not change until she felt safe enough within her body to mindfully go back into that experience and truly know how that little girl had felt and acted during the abuse.

THE NUMBING WITHIN

One of the ways the memory of helplessness is stored is as muscle tension or feelings of disintegration in the affected body areas: head, back, and limbs in accident victims, vagina and rectum in victims of sexual abuse. The lives of many trauma survivors come to revolve around bracing against and neutralizing unwanted sensory experiences, and most people I see in my practice have become experts in such self-numbing. They may become serially obese or anorexic or addicted to exercise or work. At least half of all traumatized people try to dull their intolerable inner world with drugs or alcohol. The flip side of numbing is sensation seeking. Many people cut themselves to make the numbing go away, while others try bungee jumping or high-risk activities like prostitution and gambling. Any of these methods can give them a false and paradoxical feeling of control.

When people are chronically angry or scared, constant muscle tension ultimately leads to spasms, back pain, migraine headaches, fibromyalgia, and other forms of chronic pain. They may visit multiple specialists, undergo extensive diagnostic tests, and be prescribed multiple medications, some of which may provide temporary relief but all of which fail to address the underlying issues. Their diagnosis will come to define their reality without ever being identified as a symptom of their attempt to cope with trauma.

The first two years of my therapy with Annie focused on helping her learn to tolerate her physical sensations for what they were—just sensations in the present, with a beginning, a middle, and an end. We worked on helping her stay calm enough to notice what she felt without judgment, so she could observe these unbidden images and feelings as residues of a terrible past and not as unending threats to her life today.

Patients like Annie continuously challenge us to find new ways of helping people regulate their arousal and control their own physiology. That is how my Trauma Center colleagues and I stumbled upon yoga.

FINDING OUR WAY TO YOGA: BOTTOM-UP REGULATION

Our involvement with yoga started in 1998 when Jim Hopper and I first heard about a new biological marker, heart rate variability (HRV), that had recently been discovered to be a good measure of how well the autonomic nervous system is working. As you'll recall from chapter 5, the autonomic nervous system is our brain's most elementary survival system, its two branches regulating arousal throughout the body. Roughly speaking, the sympathetic nervous system (SNS) uses chemicals like adrenaline to fuel the body and brain to take action, while the parasympathetic nervous system (PNS) uses acetylcholine to help regulate basic body functions like digestion, wound healing, and sleep and dream cycles. When we're at our best, these two systems work closely together to keep us in an optimal state of engagement with our environment and with ourselves.

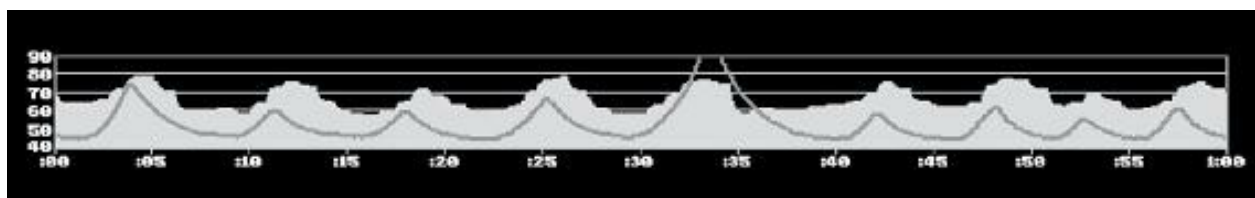
Heart rate variability measures the relative balance between the sympathetic and the

parasympathetic systems. When we inhale, we stimulate the SNS, which results in an increase in heart rate. Exhalations stimulate the PNS, which decreases how fast the heart beats. In healthy individuals inhalations and exhalations produce steady, rhythmical fluctuations in heart rate: Good heart rate variability is a measure of basic well-being.

Why is HRV important? When our autonomic nervous system is well balanced, we have a reasonable degree of control over our response to minor frustrations and disappointments, enabling us to calmly assess what is going on when we feel insulted or left out. Effective arousal modulation gives us control over our impulses and emotions: As long as we manage to stay calm, we can choose how we want to respond. Individuals with poorly modulated autonomic nervous systems are easily thrown off balance, both mentally and physically. Since the autonomic nervous system organizes arousal in both body and brain, poor HRV—that is, a lack of fluctuation in heart rate in response to breathing—not only has negative effects on thinking and feeling but also on how the body responds to stress. Lack of coherence between breathing and heart rate makes people vulnerable to a variety of physical illnesses, such as heart disease and cancer, in addition to mental problems such as depression and PTSD.²

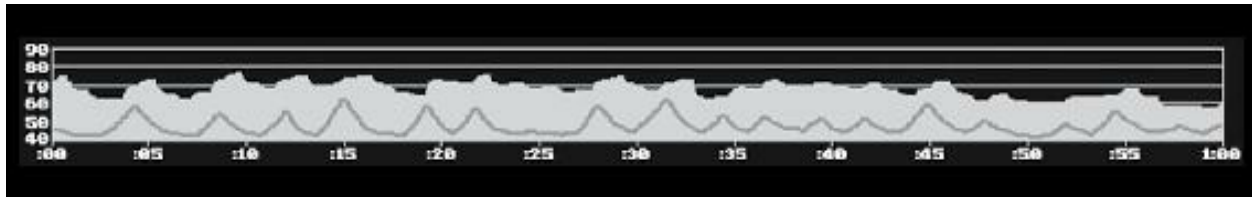
In order to study this issue further, we acquired a machine to measure HRV and started to put bands around the chests of research subjects with and without PTSD to record the depth and rhythm of their breathing while little monitors attached to their earlobes picked up their pulse. After we'd tested about sixty subjects, it became clear that people with PTSD have unusually low HRV. In other words, in PTSD the sympathetic and parasympathetic nervous systems are out of sync.³ This added a new twist to the complicated trauma story: We confirmed that yet another brain regulatory system was not functioning as it should.⁴ Failure to keep this system in balance is one explanation why traumatized people like Annie are so vulnerable to overrespond to relatively minor stresses: The biological systems that are meant to help us cope with the vagaries of life fail to meet the challenge.

Our next scientific question was: Is there a way for people to improve their HRV? I had a personal incentive to explore this question, as I had discovered that my own HRV was not nearly robust enough to guarantee long-term physical health. An Internet search turned up studies showing that marathon running markedly increased HRV. Sadly, that was of little use, since neither I nor our patients were good candidates for the Boston Marathon. Google also listed seventeen thousand yoga sites claiming that yoga improved HRV, but we were unable to find any supporting studies. Yogis may have developed a wonderful method to help people find internal balance and health, but back in 1998 not much work had been done on evaluating their claims with the tools of the Western medical tradition.

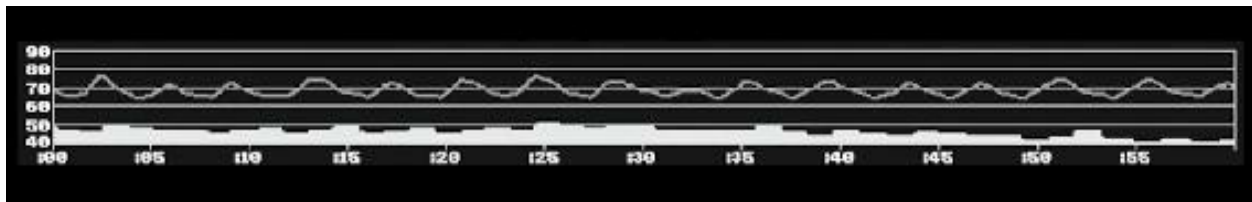


Heart rate variability (HRV) in a well-regulated person. The rising and falling black lines represent breathing, in this case slow and regular inhalations and exhalations. The gray area shows fluctuations in heart rate. Whenever this individual inhales, his heart rate goes up; during exhalations the heart slows down. This pattern of heart rate variability reflects excellent

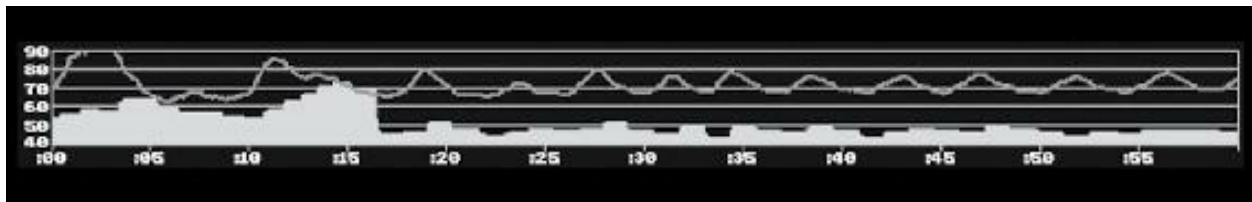
physiological health.



Responding to upset. When someone remembers an upsetting experience, breathing speeds up and becomes irregular, as does heart rate. Heart and breath no longer stay perfectly in sync. This is a normal response.



HRV in PTSD. Breathing is rapid and shallow. Heart rate is slow and out of sync with the breath. This is a typical pattern of a shut-down person with chronic PTSD.



A person with chronic PTSD reliving a trauma memory. Breathing initially is labored and deep, typical of a panic reaction. The heart races out of sync with the breath. This is followed by rapid, shallow breathing and slow heart rate, signs that the person is shutting down.

Since then, however, scientific methods have confirmed that changing the way one breathes can improve problems with anger, depression, and anxiety⁵ and that yoga can positively affect such wide-ranging medical problems as high blood pressure, elevated stress hormone secretion,⁶ asthma, and low-back pain.⁷ However, no psychiatric journal had published a scientific study of yoga for PTSD until our own work appeared in 2014.⁸

As it happened, a few days after our Internet search a lanky yoga teacher named David Emerson walked through the front door of the Trauma Center. He told us that he'd developed a modified form of hatha yoga to deal with PTSD and that he'd been holding classes for veterans at a local vet center and for women in the Boston Area Rape Crisis Center. Would we be interested in working with him? Dave's visit eventually grew into a very active yoga program, and in due course we received the first grant from the National Institutes of Health to study the effects of yoga on PTSD. Dave's work also contributed to my developing my own regular yoga practice and becoming a frequent teacher at Kripalu, a yoga center in the Berkshire Mountains in western Massachusetts. (Along the way, my own HRV pattern improved as well.)

In choosing to explore yoga to improve HRV we were taking an expansive approach to the problem. We could simply have used any of a number of reasonably priced handheld devices that train people to slow their breathing and synchronize it with their heart rate, resulting in a state of “cardiac coherence” like the pattern shown in the first illustration above.⁹ Today there are a variety of apps that can help improve HRV with the aid of a smartphone.¹⁰ In our clinic we have workstations where patients can train their HRV, and I urge all my patients who, for one reason or another, cannot practice yoga, martial arts, or qigong to train themselves at home. (See Resources for more information.)

EXPLORING YOGA

Our decision to study yoga led us deeper into trauma’s impact on the body. Our first experimental yoga classes met in a room generously donated by a nearby studio. David Emerson and his colleagues Dana Moore and Jodi Carey volunteered as instructors, and my research team figured out how we could best measure yoga’s effects on psychological functioning. We put flyers in neighborhood supermarkets and laundromats to advertise our classes and interviewed dozens of people who called in response. Ultimately we selected thirty-seven women who had severe trauma histories and who had already received many years of therapy without much benefit. Half the volunteers were selected at random for the yoga group, while the others would receive a well-established mental health treatment, dialectical behavior therapy (DBT), which teaches people how to apply mindfulness to stay calm and in control. Finally, we commissioned an engineer at MIT to build us a complicated computer that could measure HRV simultaneously in eight different people. (In each study group there were multiple classes, each with no more than eight participants.) While yoga significantly improved arousal problems in PTSD and dramatically improved our subjects’ relationships to their bodies (“I now take care of my body”; “I listen to what my body needs”), eight weeks of DBT did not affect their arousal levels or PTSD symptoms. Thus, our interest in yoga gradually evolved from a focus on learning whether yoga can change HRV (which it can)¹¹ to helping traumatized people learn to comfortably inhabit their tortured bodies.

Over time we also started a yoga program for marines at Camp Lejeune and have worked successfully with various other programs to implement yoga programs for veterans with PTSD. Even though we have no formal research data on the veterans, it looks as if yoga is at least as effective for them as it has been for the women in our studies.

All yoga programs consist of a combination of breath practices (*pranayama*), stretches or postures (*asanas*), and meditation. Different schools of yoga emphasize variations in intensity and focus within these core components. For example, variations in the speed and depth of breathing and use of the mouth, nostrils, and throat all produce different results, and some techniques have powerful effects on energy.¹² In our classes we keep the approach simple. Many of our patients are barely aware of their breath, so learning to focus on the in and out breath, to notice whether the breath was fast or slow, and to count breaths in some poses can be a significant accomplishment.¹³

We gradually introduce a limited number of classic postures. The emphasis is not on getting the poses “right” but on helping the participants notice which muscles are active at different times. The sequences are designed to create a rhythm between tension and relaxation—

something we hope they will begin to perceive in their day-to-day lives.

We do not teach meditation as such, but we do foster mindfulness by encouraging students to observe what is happening in different parts of the body from pose to pose. In our studies we keep seeing how difficult it is for traumatized people to feel completely relaxed and physically safe in their bodies. We measure our subjects' HRV by placing tiny monitors on their arms during *shavasana*, the pose at the end of most classes during which practitioners lie face up, palms up, arms and legs relaxed. Instead of relaxation we picked up too much muscle activity to get a clear signal. Rather than going into a state of quiet repose, our students' muscles often continue to prepare them to fight unseen enemies. A major challenge in recovering from trauma remains being able to achieve a state of total relaxation and safe surrender.

LEARNING SELF-REGULATION

After seeing the success of our pilot studies, we established a therapeutic yoga program at the Trauma Center. I thought that this might be an opportunity for Annie to develop a more caring relationship with her body, and I urged her to try it. The first class was difficult. Merely being given an adjustment by the instructor was so terrifying that she went home and slashed herself—her malfunctioning alarm system interpreted even a gentle touch on her back as an assault. At the same time Annie realized that yoga might offer her a way to liberate herself from the constant sense of danger that she felt in her body. With my encouragement she returned the following week.

Annie had always found it easier to write about her experiences than to talk about them. After her second yoga class she wrote to me: "I don't know all of the reasons that yoga terrifies me so much, but I do know that it will be an incredible source of healing for me and that is why I am working on myself to try it. Yoga is about looking inward instead of outward and listening to my body, and a lot of my survival has been geared around never doing those things. Going to the class today my heart was racing and part of me really wanted to turn around, but then I just kept putting one foot in front of the other until I got to the door and went in. After the class I came home and slept for four hours. This week I tried doing yoga at home and the words came to me 'Your body has things to say.' I said back to myself, 'I will try and listen.'"

A few days later Annie wrote: "Some thoughts during and after yoga today. It occurred to me how disconnected I must be from my body when I cut it. When I was doing the poses I noticed that my jaw and the whole area from where my legs end to my bellybutton is where I am tight, tense and holding the pain and memories. Sometimes you have asked me where I feel things and I can't even begin to locate them, but today I felt those places very clearly and it made me want to cry in a gentle kind of way."

The following month both of us went on vacation and, invited to stay in touch, Annie wrote to me again: "I've been doing yoga on my own in a room that overlooks the lake. I'm continuing to read the book you lent me [Stephen Cope's wonderful *Yoga and the Quest for the True Self*]. It's really interesting to think about how much I have been refusing to listen to my body, which is such an important part of who I am. Yesterday when I did yoga I thought about letting my body tell me the story it wants to tell and in the hip opening poses there was a lot of pain and sadness. I don't think my mind is going to let really vivid images come up as long as I am away from home, which is good. I think now about how unbalanced I have been and about how hard I

have tried to deny the past, which is a part of my true self. There is so much I can learn if I am open to it and then I won't have to fight myself every minute of every day."

One of the hardest yoga positions for Annie to tolerate was one that's often called Happy Baby, in which you lie on your back with your knees deeply bent and the soles of your feet pointing to the ceiling, while holding your toes with your hands. This rotates the pelvis into a wide-open position. It's easy to understand why this would make a rape victim feel extremely vulnerable. Yet, as long as Happy Baby (or any posture that resembles it) precipitates intense panic, it is difficult to be intimate. Learning how to comfortably assume Happy Baby is a challenge for many patients in our yoga classes.

GETTING TO KNOW ME: CULTIVATING INTEROCEPTION

One of the clearest lessons from contemporary neuroscience is that our sense of ourselves is anchored in a vital connection with our bodies.¹⁴ We do not truly know ourselves unless we can feel and interpret our physical sensations; we need to register and act on these sensations to navigate safely through life.¹⁵ While numbing (or compensatory sensation seeking) may make life tolerable, the price you pay is that you lose awareness of what is going on inside your body and, with that, the sense of being fully, sensually alive.

In chapter 6 I discussed alexithymia, the technical term for not being able to identify what is going on inside oneself.¹⁶ People who suffer from alexithymia tend to feel physically uncomfortable but cannot describe exactly what the problem is. As a result they often have multiple vague and distressing physical complaints that doctors can't diagnose. In addition, they can't figure out for themselves what they're really feeling about any given situation or what makes them feel better or worse. This is the result of numbing, which keeps them from anticipating and responding to the ordinary demands of their bodies in quiet, mindful ways. At the same time, it muffles the everyday sensory delights of experiences like music, touch, and light, which imbue life with value. Yoga turned out to be a terrific way to (re)gain a relationship with the interior world and with it a caring, loving, sensual relationship to the self.

If you are not aware of what your body needs, you can't take care of it. If you don't feel hunger, you can't nourish yourself. If you mistake anxiety for hunger, you may eat too much. And if you can't feel when you're satiated, you'll keep eating. This is why cultivating sensory awareness is such a critical aspect of trauma recovery. Most traditional therapies downplay or ignore the moment-to-moment shifts in our inner sensory world. But these shifts carry the essence of the organism's responses: the emotional states that are imprinted in the body's chemical profile, in the viscera, in the contraction of the striated muscles of the face, throat, trunk, and limbs.¹⁷ Traumatized people need to learn that they can tolerate their sensations, befriend their inner experiences, and cultivate new action patterns.

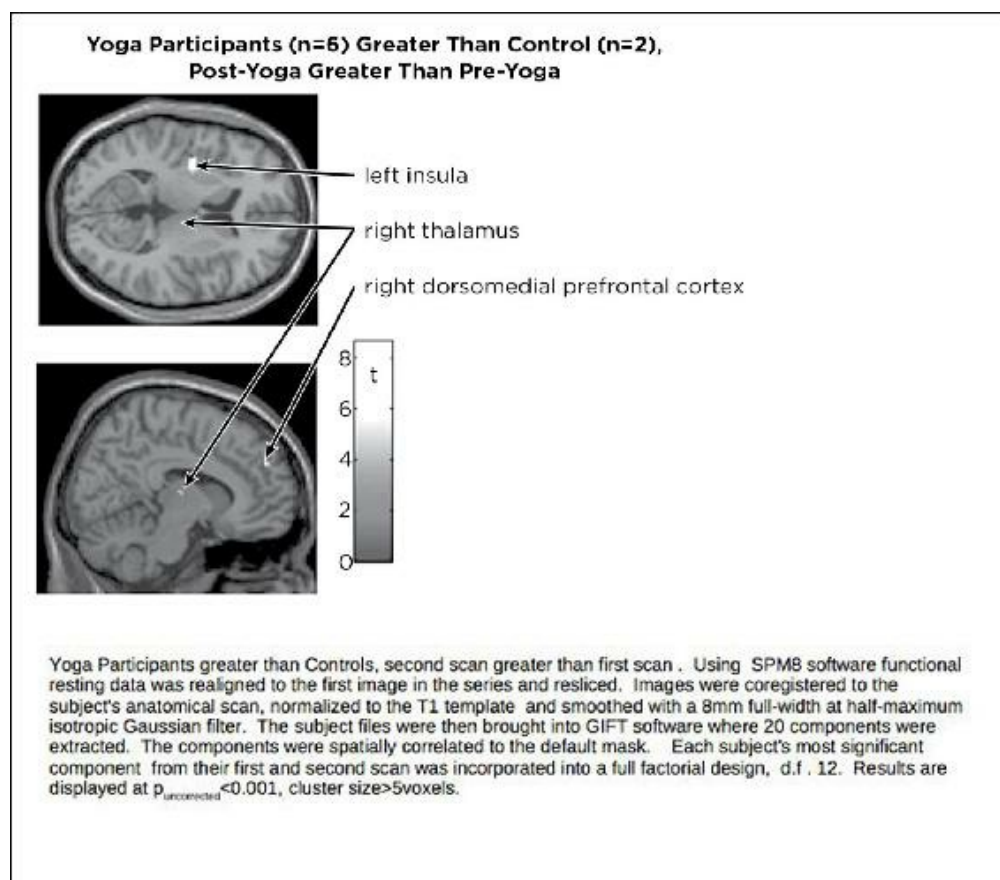
In yoga you focus your attention on your breathing and on your sensations moment to moment. You begin to notice the connection between your emotions and your body—perhaps how anxiety about doing a pose actually throws you off balance. You begin to experiment with changing the way you feel. Will taking a deep breath relieve that tension in your shoulder? Will focusing on your exhalations produce a sense of calm?¹⁸

Simply noticing what you feel fosters emotional regulation, and it helps you to stop trying to ignore what is going on inside you. As I often tell my students, the two most important phrases in

therapy, as in yoga, are “Notice that” and “What happens next?” Once you start approaching your body with curiosity rather than with fear, everything shifts.

Body awareness also changes your sense of time. Trauma makes you feel as if you are stuck forever in a helpless state of horror. In yoga you learn that sensations rise to a peak and then fall. For example, if an instructor invites you to enter a particularly challenging position, you may at first feel a sense of defeat or resistance, anticipating that you won’t be able to tolerate the feelings brought up by this particular position. A good yoga teacher will encourage you to just notice any tension while timing what you feel with the flow of your breath: “We’ll be holding this position for ten breaths.” This helps you anticipate the end of discomfort and strengthens your capacity to deal with physical and emotional distress. Awareness that all experience is transitory changes your perspective on yourself.

This is not to say that regaining interoception isn’t potentially upsetting. What happens when a newly accessed feeling in your chest is experienced as rage, or fear, or anxiety? In our first yoga study we had a 50 percent dropout rate, the highest of any study we’d ever done. When we interviewed the patients who’d left, we learned that they had found the program too intense: Any posture that involved the pelvis could precipitate intense panic or even flashbacks to sexual assaults. Intense physical sensations unleashed the demons from the past that had been so carefully kept in check by numbing and inattention. This taught us to go slow, often at a snail’s pace. That approach paid off: In our most recent study only one out of thirty-four participants did not finish.



Effects of a weekly yoga class. After twenty weeks, chronically traumatized women developed increased activation of critical brain structures involved in self-regulation: the insula and the medial prefrontal cortex.

YOGA AND THE NEUROSCIENCE OF SELF-AWARENESS

During the past few years brain researchers such as my colleagues Sara Lazar and Britta Hölzel at Harvard have shown that intensive meditation has a positive effect on exactly those brain areas that are critical for physiological self-regulation.¹⁹ In our latest yoga study, with six women with histories of profound early trauma, we also found the first indications that twenty weeks of yoga practice increased activation of the basic self-system, the insula and the medial prefrontal cortex (see chapter 6). This research needs much more work, but it opens up new perspectives on how actions that involve noticing and befriending the sensations in our bodies can produce profound changes in both mind and brain that can lead to healing from trauma.

After each of our yoga studies, we asked the participants what effect the classes had had on them. We never mentioned the insula or interoception; in fact, we kept the discussion and explanation to a minimum so that they could focus inward.

Here is a sample of their responses:

- “My emotions feel more powerful. Maybe it’s just that I can recognize them now.”
- “I can express my feelings more because I can recognize them more. I feel them in my body, recognize them, and address them.”
- “I now see choices, multiple paths. I can decide and I can choose my life, it doesn’t have to be repeated or be experienced like a child.”
- “I was able to move my body and be in my body in a safe place and without hurting myself/getting hurt.”

LEARNING TO COMMUNICATE

People who feel safe in their bodies can begin to translate the memories that previously overwhelmed them into language. After Annie had been practicing yoga three times a week for about a year, she noticed that she was able to talk much more freely to me about what had happened to her. She thought this almost miraculous. One day, when she knocked over a glass of water, I got up from my chair and approached her with a Kleenex box, saying, “Let me clean that up.” This precipitated a brief, intense panic reaction. She was quickly able to contain herself, though, and explained why those particular words were so upsetting to her—they were what her father would say after he’d raped her. Annie wrote to me after that session: “Did you notice that I have been able to say the words out loud? I didn’t have to write them down to tell you what was happening. I didn’t lose trust in you because you said words that triggered me. I understood that the words were a trigger and not terrible words that no one should say.”

Annie continues to practice yoga and to write to me about her experiences: “Today I went to a morning yoga class at my new yoga studio. The teacher talked about breathing to the edge of where we can and then noticing that edge. She said that if we notice our breath we are in the present because we can’t breathe in the future or the past. It felt so amazing to me to be practicing breathing in that way after we had just talked about it, like I had been given a gift.

Some of the poses can be triggering for me. Two of them were today, one where your legs are up frog like and one where you are doing really deep breathing into your pelvis. I felt the beginning of panic, especially in the breathing pose, like oh no that's not a part of my body I want to feel. But then I was able to stop myself and just say, notice that this part of your body is holding experiences and then just let it go. You don't have to stay there but you don't have to leave either, just use it as information. I don't know that I have ever been able to do that in such a conscious way before. It made me think that if I notice without being so afraid, it will be easier for me to believe myself."

In another message, Annie reflected on the changes in her life: "I slowly learned to just have my feelings, without being hijacked by them. Life is more manageable: I am more attuned to my day and more present in the moment. I am more tolerant of physical touch. My husband and I are enjoying watching movies cuddled together in bed . . . a huge step. All this helped me finally feel intimate with my husband."

CHAPTER 17

PUTTING THE PIECES TOGETHER: SELF-LEADERSHIP

This being human is a guest house. Every morning is a new arrival. A joy, a depression, a meanness, some momentary awareness comes as an unexpected visitor. . . . Welcome and entertain them all. Treat each guest honorably. The dark thought, the shame, the malice, meet them at the door laughing, and invite them in. Be grateful for whoever comes, because each has been sent as a guide from beyond.

—Rumi

A man has as many social selves as there are individuals who recognize him.

—William James, *The Principles of Psychology*

It was early in my career, and I had been seeing Mary, a shy, lonely, and physically collapsed young woman, for about three months in weekly psychotherapy, dealing with the ravages of her terrible history of early abuse. One day I opened the door to my waiting room and saw her standing there provocatively, dressed in a miniskirt, her hair dyed flaming red, with a cup of coffee in one hand and a snarl on her face. “You must be Dr. van der Kolk,” she said. “My name is Jane, and I came to warn you not to believe any of the lies that Mary has been telling you. Can I come in and tell you about her?” I was stunned but fortunately kept myself from confronting “Jane” and instead heard her out. Over the course of our session I met not only Jane but also a hurt little girl and an angry male adolescent. That was the beginning of a long and productive treatment.

Mary was my first encounter with dissociative identity disorder (DID), which at that time was called multiple personality disorder. As dramatic as its symptoms are, the internal splitting and emergence of distinct identities experienced in DID represent only the extreme end of the spectrum of mental life. The sense of being inhabited by warring impulses or parts is common to all of us but particularly to traumatized people who had to resort to extreme measures in order to survive. Exploring—even befriending—those parts is an important component of healing.

DESPERATE TIMES REQUIRE DESPERATE MEASURES

We all know what happens when we feel humiliated: We put all our energy into protecting ourselves, developing whatever survival strategies we can. We may repress our feelings; we may get furious and plot revenge. We may decide to become so powerful and successful that nobody can ever hurt us again. Many behaviors that are classified as psychiatric problems, including some obsessions, compulsions, and panic attacks, as well as most self-destructive behaviors, started out as strategies for self-protection. These adaptations to trauma can so interfere with the capacity to function that health-care providers and patients themselves often believe that full recovery is beyond reach. Viewing these symptoms as permanent disabilities narrows the focus of treatment to finding the proper drug regimen, which can lead to lifelong dependence—as though trauma survivors were like kidney patients on dialysis.¹

It is much more productive to see aggression or depression, arrogance or passivity as learned behaviors: Somewhere along the line, the patient came to believe that he or she could survive only if he or she was tough, invisible, or absent, or that it was safer to give up. Like traumatic memories that keep intruding until they are laid to rest, traumatic adaptations continue until the human organism feels safe and integrates all the parts of itself that are stuck in fighting or warding off the trauma.

Every trauma survivor I've met is resilient in his or her own way, and every one of their stories inspires awe at how people cope. Knowing how much energy the sheer act of survival requires keeps me from being surprised at the price they often pay: the absence of a loving relationship with their own bodies, minds, and souls.

Coping takes its toll. For many children it is safer to hate themselves than to risk their relationship with their caregivers by expressing anger or by running away. As a result, abused children are likely to grow up believing that they are fundamentally unlovable; that was the only way their young minds could explain why they were treated so badly. They survive by denying, ignoring, and splitting off large chunks of reality: They forget the abuse; they suppress their rage or despair; they numb their physical sensations. If you were abused as a child, you are likely to have a childlike part living inside you that is frozen in time, still holding fast to this kind of self-loathing and denial. Many adults who survive terrible experiences are caught in the same trap. Pushing away intense feelings can be highly adaptive in the short run. It may help you preserve your dignity and independence; it may help you maintain focus on critical tasks like saving a comrade, taking care of your kids, or rebuilding your house.

The problems come later. After seeing a friend blown up, a soldier may return to civilian life and try to put the experience out of his mind. A protective part of him knows how to be competent at his job and how to get along with colleagues. But he may habitually erupt in rage at his girlfriend or become numb and frozen when the pleasure of surrendering to her touch makes him feel he is losing control. He probably will not be aware that his mind automatically associates passive surrender with the paralysis he felt when his friend was killed. So another protective part steps in to create a diversion: He gets angry and, having no idea what set him off, he thinks he's mad about something his girlfriend did. Of course, if he keeps blowing up at her (and subsequent girlfriends), he will become more and more isolated. But he may never realize that a traumatized part is triggered by passivity and that another part, an angry manager, is stepping in to protect that vulnerable part. Helping these parts to give up their extreme beliefs is how therapy can save people's lives.

As we saw in chapter 13, a central task for recovery from trauma is to learn to live with the memories of the past without being overwhelmed by them in the present. But most survivors, including those who are functioning well—even brilliantly—in some aspects of their lives, face another, even greater challenge: reconfiguring a brain/mind system that was constructed to cope with the worst. Just as we need to revisit traumatic memories in order to integrate them, we need to revisit the parts of ourselves that developed the defensive habits that helped us to survive.

THE MIND IS A MOSAIC

We all have parts. Right now a part of me feels like taking a nap; another part wants to keep writing. Still feeling injured by an offensive e-mail message, a part of me wants to hit “reply” on a stinging put-down, while a different part wants to shrug it off. Most people who know me have seen my intense, sincere, and irritable parts; some have met the little snarling dog that lives inside me. My children reminisce about going on family vacations with my playful and adventurous parts.

When you walk into the office in the morning and see the storm clouds over your boss’s head, you know precisely what is coming. That angry part has a characteristic tone of voice, vocabulary, and body posture—so different from yesterday, when you shared pictures of your kids. Parts are not just feelings but distinct ways of being, with their own beliefs, agendas, and roles in the overall ecology of our lives.

How well we get along with ourselves depends largely on our internal leadership skills—how well we listen to our different parts, make sure they feel taken care of, and keep them from sabotaging one another. Parts often come across as absolutes when in fact they represent only one element in a complex constellation of thoughts, emotions, and sensations. If Margaret shouts, “I hate you!” in the middle of an argument, Joe probably thinks she despises him—and in that moment Margaret might agree. But in fact only a part of her is angry, and that part temporarily obscures her generous and affectionate feelings, which may well return when she sees the devastation on Joe’s face.

Every major school of psychology recognizes that people have subpersonalities and gives them different names.² In 1890 William James wrote: “[I]t must be admitted that . . . the total possible consciousness may be split into parts which coexist, but mutually ignore each other, and share the objects of knowledge between them.”³ Carl Jung wrote: “The psyche is a self-regulating system that maintains its equilibrium just as the body does,”⁴ “The natural state of the human psyche consists in a jostling together of its components and in their contradictory behavior,”⁵ and “The reconciliation of these opposites is a major problem. Thus, the adversary is none other than ‘the other in me.’”⁶

Modern neuroscience has confirmed this notion of the mind as a kind of society. Michael Gazzaniga, who conducted pioneering split-brain research, concluded that the mind is composed of semiautonomous functioning modules, each of which has a special role.⁷ In his book *The Social Brain* (1985) he writes, “But what of the idea that the self is not a unified being, and there may exist within us several realms of consciousness? . . . From our [split-brain] studies the new idea emerges that there are literally several selves, and they do not necessarily ‘converse’ with each other internally.”⁸ MIT scientist Marvin Minsky, a pioneer of artificial intelligence, declared: “The legend of the single Self can only divert us from the target of that inquiry.”⁹ . . .

[I]t can make sense to think there exists, inside your brain, a society of different minds. Like members of a family, the different minds can work together to help each other, each still having its own mental experiences that the others never know about.”¹⁰

Therapists who are trained to see people as complex human beings with multiple characteristics and potentialities can help them explore their system of inner parts and take care of the wounded facets of themselves. There are several such treatment approaches, including the structural dissociation model developed by my Dutch colleagues Onno van der Hart and Ellert Nijenhuis and Atlanta-based Kathy Steel, that is widely practiced in Europe and Richard Kluft’s work in the United States.¹¹

Twenty years after working with Mary, I met Richard Schwartz, the developer of internal family systems therapy (IFS). It was through his work that Minsky’s “family” metaphor truly came to life for me and offered a systematic way to work with the split-off parts that result from trauma. At the core of IFS is the notion that the mind of each of us is like a family in which the members have different levels of maturity, excitability, wisdom, and pain. The parts form a network or system in which change in any one part will affect all the others.

The IFS model helped me realize that dissociation occurs on a continuum. In trauma the self-system breaks down, and parts of the self become polarized and go to war with one another. Self-loathing coexists (and fights) with grandiosity; loving care with hatred; numbing and passivity with rage and aggression. These extreme parts bear the burden of the trauma.

In IFS a part is considered not just a passing emotional state or customary thought pattern but a distinct mental system with its own history, abilities, needs, and worldview.¹² Trauma injects parts with beliefs and emotions that hijack them out of their naturally valuable state. For example, we all have parts that are childlike and fun. When we are abused, these are the parts that are hurt the most, and they become frozen, carrying the pain, terror, and betrayal of abuse. This burden makes them toxic—parts of ourselves that we need to deny at all costs. Because they are locked away inside, IFS calls them the *exiles*.

At this point other parts organize to protect the internal family from the exiles. These protectors keep the toxic parts away, but in so doing they take on some of the energy of the abuser. Critical and perfectionistic *managers* can make sure we never get close to anyone or drive us to be relentlessly productive. Another group of protectors, which IFS calls *firefighters*, are emergency responders, acting impulsively whenever an experience triggers an exiled emotion.

Each split-off part holds different memories, beliefs, and physical sensations; some hold the shame, others the rage, some the pleasure and excitement, another the intense loneliness or the abject compliance. These are all aspects of the abuse experience. The critical insight is that all these parts have a function: to protect the self from feeling the full terror of annihilation.

Children who act out their pain rather than locking it down are often diagnosed with “oppositional defiant behavior,” “attachment disorder,” or “conduct disorder.” But these labels ignore the fact that rage and withdrawal are only facets of a whole range of desperate attempts at survival. Trying to control a child’s behavior while failing to address the underlying issue—the abuse—leads to treatments that are ineffective at best and harmful at worst. As they grow up, their parts do not spontaneously integrate into a coherent personality but continue to lead a relatively autonomous existence.

Parts that are “out” may be entirely unaware of the other parts of the system.¹³ Most of the

men I evaluated with regard to their childhood molestation by Catholic priests took anabolic steroids and spent an inordinate amount of time in the gym pumping iron. These compulsive bodybuilders lived in a masculine culture of sweat, football, and beer, where weakness and fear were carefully concealed. Only after they felt safe with me did I meet the terrified kids inside.

Patients may also dislike the parts that are out: the parts that are angry, destructive, or critical. But IFS offers a framework for understanding them—and, also important, talking about them in a nonpathologizing way. Recognizing that each part is stuck with burdens from the past and respecting its function in the overall system makes it feel less threatening or overwhelming.

As Schwartz states: “If one accepts the basic idea that people have an innate drive toward nurturing their own health, this implies that, when people have chronic problems, something gets in the way of accessing inner resources. Recognizing this, the role of therapists is to collaborate rather than to teach, confront, or fill holes in your psyche.”¹⁴ The first step in this collaboration is to assure the internal system that all parts are welcome and that all of them—even those that are suicidal or destructive—were formed in an attempt to protect the self-system, no matter how much they now seem to threaten it.

SELF-LEADERSHIP

IFS recognizes that the cultivation of mindful self-leadership is the foundation for healing from trauma. Mindfulness not only makes it possible to survey our internal landscape with compassion and curiosity but can also actively steer us in the right direction for self-care. All systems—families, organizations, or nations—can operate effectively only if they have clearly defined and competent leadership. The internal family is no different: All facets of our selves need to be attended to. The internal leader must wisely distribute the available resources and supply a vision for the whole that takes all the parts into account.

As Richard Schwartz explains:

*The internal system of an abuse victim differs from the non-abuse system with regard to the consistent absence of effective leadership, the extreme rules under which the parts function, and the absence of any consistent balance or harmony. Typically, the parts operate around outdated assumptions and beliefs derived from the childhood abuse, believing, for example, that it is still extremely dangerous to reveal secrets about childhood experiences which were endured.*¹⁵

What happens when the self is no longer in charge? IFS calls this “blending”: a condition in which the Self identifies with a part, as in “I want to kill myself” or “I hate you.” Notice the difference from “A part of me wishes that I were dead” or “A part of me gets triggered when you do that and makes me want to kill you.”

Schwartz makes two assertions that extend the concept of mindfulness into the realm of active leadership. The first is that this Self does not need to be cultivated or developed. Beneath the surface of the protective parts of trauma survivors there exists an undamaged essence, a Self that is confident, curious, and calm, a Self that has been sheltered from destruction by the various protectors that have emerged in their efforts to ensure survival. Once those protectors trust that it is safe to separate, the Self will spontaneously emerge, and the parts can be enlisted in the

healing process.

The second assumption is that, rather than being a passive observer, this mindful Self can help reorganize the inner system and communicate with the parts in ways that help those parts trust that there is someone inside who can handle things. Again neuroscience research shows that this is not just a metaphor. Mindfulness increases activation of the medial prefrontal cortex and decreases activation of structures like the amygdala that trigger our emotional responses. This increases our control over the emotional brain.

Even more than encouraging a relationship between a therapist and a helpless patient, IFS focuses on cultivating an inner relationship between the Self and the various protective parts. In this model of treatment the Self doesn't only witness or passively observe, as in some meditation traditions; it has an active leadership role. The Self is like an orchestra conductor who helps all the parts to function harmoniously as a symphony rather than a cacophony.

GETTING TO KNOW THE INTERNAL LANDSCAPE

The task of the therapist is to help patients separate this confusing blend into separate entities, so that they are able to say: "This part of me is like a little child, and that part of me is more mature but feels like a victim." They might not like many of these parts, but identifying them makes them less intimidating or overwhelming. The next step is to encourage patients to simply ask each protective part as it emerges to "stand back" temporarily so that we can see what it is protecting. When this is done again and again, the parts begin to unblend from the Self and make space for mindful self-observation. Patients learn to put their fear, rage, or disgust on hold and open up into states of curiosity and self-reflection. From the stable perspective of Self they can begin constructive inner dialogues with their parts.

Patients are asked to identify the part involved in the current problem, like feeling worthless, abandoned, or obsessed with vengeful thoughts. As they ask themselves, "What inside me feels that way?" an image may come to mind.¹⁶ Maybe the depressed part looks like an abandoned child, or an aging man, or an overwhelmed nurse taking care of the wounded; a vengeful part might appear as a combat marine or a member of a street gang.

Next the therapist asks, "How do you feel toward that (sad, vengeful, terrified) part of you?" This sets the stage for mindful self-observation by separating the "you" from the part in question. If the patient has an extreme response like "I hate it," the therapist knows that there is another protective part blended with Self. He or she might then ask, "See if the part that hates it would step back." Then the protective part is often thanked for its vigilance and assured that it can return anytime that it is needed. If the protective part is willing, the follow-up question is: "How do you feel toward the (previously rejected) part now?" The patient is likely to say something like "I wonder why it is so (sad, vengeful etc.)." This sets the stage for getting to know the part better—for example, by inquiring how old it is and how it came to feel the way it does.

Once a patient manifests a critical mass of Self, this kind of dialogue begins to take place spontaneously. At this point it's important for the therapist to step aside and just keep an eye out for other parts that might interfere, or make occasional empathic comments, or ask questions like "What do you say to the part about that?" or "Where do you want to go now?" or "What feels like the right next step?" as well as the ubiquitous Self-detecting question, "How do you feel toward the part now?"

A LIFE IN PARTS

Joan came to see me to help her manage her uncontrollable temper tantrums and to deal with her guilt about her numerous affairs, most recently with her tennis coach. As she put it in our first session: “I go from being a kick-ass professional woman to a whimpering child, to a furious bitch, to a pitiless eating machine in the course of ten minutes. I have no idea which of these I really am.”

By this point in the session, Joan had already critiqued the prints on my wall, my rickety furniture, and my messy desk. Offense was her best defense. She was preparing to get hurt again—I’d probably let her down, as so many people had before. She knew that for therapy to work, she’d have to make herself vulnerable, so she had to find out if I could tolerate her anger, fear, and sorrow. I realized that the only way to counter her defensiveness was by showing a high level of interest in the details of her life, demonstrating unwavering support for the risk she took in talking with me, and accepting the parts she was most ashamed of.

I asked Joan if she had noticed the part of herself that was critical. She acknowledged that she had, and I asked her how she felt toward that critic. This key question allowed her to begin to separate from that part and to access her Self. Joan responded that she hated the critic, because it reminded her of her mother. When I asked her what that critical part might be protecting, her anger subsided, and she became more curious and thoughtful: “I wonder why she finds it necessary to call me some of the same names that my mother used to call me, and worse.” She talked about how scared she had been of her mom growing up and how she felt that she never could do anything right. The critic was obviously a manager: Not only was it protecting Joan from me, but it was trying to preempt her mother’s criticism.

Over the next few weeks Joan told me that she had been sexually molested by her mother’s boyfriend, probably around the time she was in the first or second grade. She thought she’d been “ruined” for intimate relationships. While she was demanding and critical of her husband, for whom she lacked any sexual desire, she was passionate and reckless in her love affairs. But the affairs always ended in a similar way: In the middle of a lovemaking session, she would suddenly become terrified and curl up into a ball, whimpering like a little girl. These scenes left her confused and disgusted, and afterward she could not bear to have anything more to do with her lover.

Like Marilyn in chapter 8, Joan told me that she had learned to make herself disappear when she was being molested, floating above the scene as if it were happening to some other girl. Pushing the molestation out of her mind had enabled Joan to have a normal school life of sleepovers, girlfriends, and team sports. The trouble began in adolescence, when she developed her pattern of frigid contempt for boys who treated her well and having casual sex that left her humiliated and ashamed. She told me that bulimia for her was what orgasms must be for other people, and having sex with her husband for her was what vomiting must be for others. While specific memories of her abuse were split off (dissociated), she unwittingly kept reenacting it.

I did not try to explain to her why she felt so angry, guilty, or shut down—she already thought of herself as damaged goods. In therapy, as in memory processing, pendulation—the gradual approach that I discussed in chapter 13—is central. For Joan to be able to deal with her misery and hurt, we would have to recruit her own strength and self-love, enabling her to heal herself.

This meant focusing on her many inner resources and reminding myself that I could not

provide her with the love and caring she had missed as a child. If, as a therapist, teacher, or mentor, you try to fill the holes of early deprivation, you come up against the fact that you are the wrong person, at the wrong time, in the wrong place. The therapy would focus on Joan's relationship with her parts rather than with me.

MEETING THE MANAGERS

As Joan's treatment progressed, we identified many different parts that were in charge at different times: an aggressive childlike part that threw tantrums, a promiscuous adolescent part, a suicidal part, an obsessive manager, a prissy moralist, and so on. As usual, we met the managers first. Their job was to prevent humiliation and abandonment and to keep her organized and safe. Some managers may be aggressive, like Joan's critic, while others are perfectionistic or reserved, careful not to draw too much attention to themselves. They may tell us to turn a blind eye to what is going on and keep us passive to avoid risk. Internal managers also control how much access we have to emotions, so that the self-system doesn't get overwhelmed.

It requires an enormous amount of energy to keep the system under control. A single flirtatious comment may trigger several parts simultaneously: one that becomes intensely sexually aroused, another filled with self-loathing, a third that tries to calm things down by self-cutting. Other managers create obsessions and distractions or deny reality altogether. But each part should be approached as an internal protector who maintains an important defensive position. Managers carry huge burdens of responsibility and usually are in over their heads.

Some managers are extremely competent. Many of my patients hold responsible positions, do outstanding professional jobs, and can be superbly attentive parents. Joan's critical manager undoubtedly contributed to her success as an ophthalmologist. I have had numerous patients who were highly skilled teachers or nurses. While their colleagues may have experienced them as a bit distant or reserved, they would probably have been astonished to discover that their exemplary coworkers engaged in self-mutilation, eating disorders, or bizarre sexual practices.

Gradually Joan started to realize that it is normal to simultaneously experience conflicting feelings or thoughts, which gave her more confidence to face the task ahead. Instead of believing that hate consumed her entire being, she learned that only a part of her felt paralyzed by it. However, after a negative evaluation at work Joan went into a tailspin, berating herself for not protecting herself, then feeling clingy, weak, and powerless. When I asked her to see where that powerless part was located in her body and how she felt toward it, she resisted. She told me she couldn't stand that whiny, incompetent girl who made her feel embarrassed and contemptuous of herself. I suspected that this part held much of the memory of her abuse, and I decided not to pressure her at this point. She left my office withdrawn and upset.

The next day she raided the refrigerator and then spent hours vomiting up her food. When she returned to my office, she told me she wanted to kill herself and was surprised that I seemed genuinely curious and nonjudgmental and that I did not condemn her for either her bulimia or her suicidality. When I asked her what parts were involved, the critic came back and blurted out, "She is disgusting." When she asked that part to step back, the next part said: "Nobody will ever love me," followed again by the critic, who told me that the best way to help her would be to ignore all that noise and to increase her medications.

Clearly, in their desire to protect her injured parts, these managers were unintentionally

doing her harm. So I kept asking them what they thought would happen if they stepped back. Joan answered: “People will hate me” and “I will be all alone and out in the street.” This was followed by a memory: Her mother had told her that if she disobeyed, she would be put up for adoption and never see her sisters or her dog again. When I asked her how she felt about that scared girl inside, she cried and said that she felt bad for her. Now her Self was back, and I was confident that we had calmed the system down, but this session turned out to be too much too soon.

PUTTING OUT THE FLAMES

The following week Joan missed her appointment. We had triggered her exiles, and her firefighters went on a rampage. As she told me later, the evening after we talked about her terror of being put into foster care, she felt as if she were going to blast out of herself. She went to a bar and picked up a guy. Coming home late, drunk, and disheveled, she refused to talk to her husband and fell asleep in the den. The next morning she acted as if nothing had happened.

Firefighters will do anything to make emotional pain go away. Aside from sharing the task of keeping the exiles locked up, they are the opposite of managers: Managers are all about staying in control, while firefighters will destroy the house in order to extinguish the fire. The struggle between uptight managers and out-of-control firefighters will continue until the exiles, which carry the burden of the trauma, are allowed to come home and be cared for.

Anyone who deals with survivors will encounter those firefighters. I’ve met firefighters who shop, drink, play computer games addictively, have impulsive affairs, or exercise compulsively. A sordid encounter can blunt the abused child’s horror and shame, if only for a couple of hours.

It is critical to remember that, at their core, firefighters are also desperately trying to protect the system. Unlike managers, who are usually superficially cooperative during therapy, firefighters don’t hold back: They hurl insults and storm out of the room. Firefighters are frantic, and if you ask them what would happen if they stopped doing their job, you discover that they believe the exiled feelings would crash the entire self-system. They are also oblivious to the idea that there are better ways to guarantee physical and emotional safety, and even if behaviors like bingeing or cutting stop, firefighters often find other methods of self-harm. These cycles will come to an end only when the Self is able to take charge and the system feels safe.

THE BURDEN OF TOXICITY

Exiles are the toxic waste dump of the system. Because they hold the memories, sensations, beliefs, and emotions associated with trauma, it is hazardous to release them. They contain the “Oh, my God, I’m done for” experience—the essence of inescapable shock—and with it, terror, collapse, and accommodation. Exiles may reveal themselves in the form of crushing physical sensations or extreme numbing, and they offend both the reasonableness of the managers and the bravado of the firefighters.

Like most incest survivors, Joan hated her exiles, particularly the little girl who had responded to her abuser’s sexual demands and the terrified child who whimpered alone in her bed. When exiles overwhelm managers, they take us over—we are nothing but that rejected, weak, unloved, and abandoned child. The Self becomes “blended” with the exiles, and every

possible alternative for our life is eclipsed. Then, as Schwartz points out, “We see ourselves, and the world, through their eyes and believe it is ‘the’ world. In this state it won’t occur to us that we have been hijacked.”¹⁷

Keeping the exiles locked up, however, stamps out not only memories and emotions but also the parts that hold them—the parts that were hurt the most by the trauma. In Schwartz’s words: “Usually those are your most sensitive, creative, intimacy-loving, lively, playful and innocent parts. By exiling them when they get hurt, they suffer a double whammy—the insult of your rejection is added to their original injury.”¹⁸ As Joan discovered, keeping the exiles hidden and despised was condemning her to a life without intimacy or genuine joy.

UNLOCKING THE PAST

Several months into Joan’s treatment we again accessed the exiled girl who carried the humiliation, confusion, and shame of Joan’s molestation. By then she had come to trust me enough and had developed enough sense of Self to be able to tolerate observing herself as a child, with all her long-buried feelings of terror, excitement, surrender, and complicity. She did not say very much during this process, and my main job was to keep her in a state of calm self-observation. She often had the impulse to pull away in disgust and horror, leaving this unacceptable child alone in her misery. At these points I asked her protectors to step back so that she could keep listening to what her little girl wanted her to know.

Finally, with my encouragement, she was able to rush into the scene and take the girl away with her to a safe place. She firmly told her abuser that she would never let him get close to her again. Instead of denying the child, she played an active role in liberating her. As in EMDR the resolution of the trauma was the result of her ability to access her imagination and rework the scenes in which she had become frozen so long ago. Helpless passivity was replaced by determined Self-led action.

Once Joan started to own her impulses and behaviors, she recognized the emptiness of her relationship with her husband, Brian, and began to insist on change. I invited her to ask Brian to meet with us, and she was present for eight sessions before he began to see me individually.

Schwartz observes that IFS can help family members “mentor” each other as they learn to observe how one person’s parts interact with another’s. I witnessed this firsthand with Joan and Brian. Brian was initially quite proud of having put up with Joan’s behavior for so long; feeling that she really needed him had kept him from even considering divorce. But now that she wanted more intimacy, he felt pressured and inadequate—revealing a panicked part that blanked out and put up a wall against feeling.

Gradually Brian began to talk about growing up in an alcoholic family where behaviors like Joan’s were common and largely ignored, punctuated by his father’s stays in detox centers and his mother’s long hospitalizations for depression and suicide attempts. When I asked his panicked part what would happen if it allowed Brian to feel anything, he revealed his fear of being overwhelmed by pain—the pain of his childhood added to the pain of his relationship with Joan.

Over the next few weeks other parts emerged. First came a protector that was frightened of women and determined never to let Brian become vulnerable to their manipulations. Then we discovered a strong caretaker part that had looked after his mother and his younger siblings. This

part gave Brian a feeling of self-worth and purpose and a way of dealing with his own terror. Finally, Brian was ready to meet his exile, the scared, essentially motherless child who'd had no one to care for him.

This is a very short version of a long exploration, which involved many diversions, as when Joan's critic reemerged from time to time. But from the beginning IFS helped Joan and Brian hear themselves and each other from the perspective of an objective, curious, and compassionate Self. They were no longer locked in the past, and a whole range of new possibilities opened up for them.

THE POWER OF SELF-COMPASSION: IFS IN THE TREATMENT OF RHEUMATOID ARTHRITIS

Nancy Shadick is a rheumatologist at Boston's Brigham and Women's Hospital who combines medical research on rheumatoid arthritis (RA) with a strong interest in her patients' personal experience of their illness. When she discovered IFS at a workshop with Richard Schwartz, she decided to incorporate the therapy into a study of psychosocial intervention with RA patients.

RA is an autoimmune disease that causes inflammatory disorders throughout the body, causing chronic pain and disability. Medication can delay its progress and relieve some of the pain, but there is no cure, and living with RA can lead to depression, anxiety, isolation, and overall impaired quality of life. I followed this study with particular interest because of the link I'd observed between trauma and autoimmune disease.

Working with senior IFS therapist Nancy Sowell, Dr. Shadick created a nine-month randomized study in which one group of RA patients would receive both group and individual instruction in IFS while a control group received regular mailings and phone calls regarding disease symptoms and management. Both groups continued with their regular medications, and they were assessed periodically by rheumatologists who were not informed which group they belonged to.

The goal of the IFS group was to teach patients how to accept and understand their inevitable fear, hopelessness, and anger and to treat those feelings as members of their own "internal family." They would learn the inner dialogue skills that would enable them to recognize their pain, identify the accompanying thoughts and emotions, and then approach these internal states with interest and compassion.

A basic problem emerged early. Like so many trauma survivors, the RA patients were alexithymic. As Nancy Sowell later told me, they never complained about their pain or disability unless they were totally overwhelmed. Asked how they were feeling, they almost always replied, "I'm fine." Their stoic parts clearly helped them cope, but these managers also kept them in a state of denial. Some shut out their bodily sensations and emotions to the extent that they could not collaborate effectively with their doctors.

To get things moving, the leaders introduced the IFS parts dramatically, rearranging furniture and props to represent managers, exiles, and firefighters. Over the course of several weeks, group members began to talk about the managers who told them to "grin and bear it" because no one wanted to hear about their pain anyway. Then, as they asked the stoic parts to step back, they started to acknowledge the angry part that wanted to yell and wreak havoc, the part that wanted stay in bed all the time, and the exile who felt worthless because she wasn't

allowed to talk. It emerged that, as children, nearly all of them were supposed to be seen and not heard—safety meant keeping their needs under wraps.

Individual IFS therapy helped patients apply the language of parts to daily issues. For example, one woman felt trapped by conflicts at her job, where a manager part insisted the only way out was to overwork until her RA flared up. With the therapist's help she realized that she could care for her needs without making herself sick.

The two groups, IFS and controls, were evaluated three times during the nine-month study period and then again one year later. At the end of nine months, the IFS group showed measurable improvements in self-assessed joint pain, physical function, self-compassion, and overall pain relative to the education group. They also showed significant improvements in depression and self-efficacy. The IFS group's gains in pain perception and depressive symptoms were sustained one year later, although objective medical tests could no longer detect measurable improvements in pain or function. In other words, what had changed most was the patients' ability to live with their disease. In their conclusions, Shadick and Sowell emphasized IFS's focus on self-compassion as a key factor.

This was not the first study to show that psychological interventions can help RA patients. Cognitive behavioral therapies and mindfulness-based practices have also been shown to have a positive impact on pain, joint inflammation, physical disability, and depression.¹⁹ However, none of these studies has asked a crucial question: Are increased psychological safety and comfort reflected in a better-functioning immune system?

LIBERATING THE EXILED CHILD

Peter ran an oncology service at a prestigious academic medical center that was consistently rated as one of the best in the country. As he sat in my office, in perfect physical shape because of his regular squash practice, his confidence had crossed the line into arrogance. This man certainly did not seem to suffer from PTSD. He told me he just wanted to know how he could help his wife to be less "touchy." She had threatened to leave him unless he did something about what she termed his callous behavior. Peter assured me that her perception was warped, because he obviously had no problem being empathic with sick people.

He loved talking about his work, proud of the fact that residents and fellows competed fiercely to be on his service and also of scuttlebutt he'd heard about his staff being terrified of him. He described himself as brutally honest, a real scientist, someone who just looked at the facts and—with a meaningful glance in my direction—did not suffer fools gladly. He had high standards, but no higher than he had for himself, and he assured me that he didn't need anybody's love, just their respect.

Peter also told me that his psychiatry rotation in med school had convinced him that psychiatrists still practiced witchcraft, and his one stint in couples' therapy had further confirmed that opinion. He expressed contempt for people who blamed their parents or society for their problems. Even though he had had his own share of misery as a child, he was determined never to think of himself as a victim.

While Peter's toughness and his love for precision appealed to me, I could not help but wonder if we would discover something I'd seen all too often: that internal managers who are obsessed with power are usually created as a bulwark against feeling helpless.

When I asked him about his family, Peter told me that his father ran a manufacturing business. He was a Holocaust survivor who could be brutal and exacting, but he also had a tender and sentimental side that had kept Peter connected with him and that had inspired Peter to become a physician. As he told me about his mother, he realized for the first time that she had substituted rigorous housekeeping for genuine care, but Peter denied that this bothered him. He went to school and got straight As. He had vowed to build a life free of rejection and humiliation, but, ironically, he lived with death and rejection every day—death on the oncology ward and the constant struggle to get his research funded and published.

Peter's wife joined us for the next meeting. She described how he criticized her incessantly—her taste in clothes, her child-rearing practices, her reading habits, her intelligence, her friends. He was rarely at home and never emotionally available. Because he had so many important obligations, and because he was so explosive, his family always tiptoed around him. She was determined to leave him and start a new life unless he made some radical changes. At that point, for the first time, I saw Peter become obviously distressed. He assured me and his wife that he wanted to work things out.

At our next session I asked him to let his body relax, close his eyes, focus his attention inside, and ask that critical part—the one his wife had identified—what it was afraid would happen if he stopped his ruthless judging. After about thirty seconds he said he felt stupid talking to himself. He didn't want to try some new age gimmick—he'd come to me looking for "empirically verified therapy." I assured him that, like him, I was at the forefront of empirically based therapies and that this was one of them. He was silent for perhaps a minute before he whispered: "I would get hurt." I urged him to ask the critic what that meant. Still with his eyes closed, Peter replied: "If you criticize others, they don't dare to hurt you." Then: "If you are perfect, nobody can criticize you." I asked him to thank his critic for protecting him against hurt and humiliation, and as he became silent again, I could see his shoulders relax and his breathing become slower and deeper.

He next told me that he was aware that his pomposity was affecting his relationships with his colleagues and students; he felt lonely and despised during staff meetings and uncomfortable at hospital parties. When I asked him if he wanted to change the way that angry part threatened people, he replied that he did. I then asked him where it was located in his body, and he found it in the middle of his chest. Keeping his focus inside, I asked him how he felt toward it. He said it made him scared.

Next I asked him to stay focused on it and see how he felt toward it now. He said he was curious to know more about it. I asked him how old it was. He said about seven. I asked him to have his critic show him what he protected. After a lengthy silence, still with his eyes closed, he told me that he was witnessing a scene from his childhood. His father was beating a little boy, him, and he was standing to one side thinking how stupid that kid was to provoke his dad. When I asked him how he felt about the boy who was getting hurt, he told me that he despised him. He was a weakling and a whiner; after showing even the least bit of defiance to his dad's high-handed ways, he inevitably capitulated and whimpered that he would be a good little boy. He had no guts, no fire in his belly. I asked the critic if he would be willing to step aside so we could see what was going on with that boy. In response the critic appeared in full force and called him names like "wimp" and "sissy." I asked Peter again if the critic would be willing to step aside and give the boy a chance to speak. He shut down completely and left the session saying that he was unlikely ever to set foot in my office again.

But the following week he was back: As she had threatened, his wife had gone to a lawyer and filed for divorce. He was devastated and no longer looked anything like the perfectly put-together doctor whom I'd come to know and, in many ways, dread. Faced with the loss of his family, he became unhinged and felt comforted by the idea that if things got too bad he could take his life in his own hands.

We went inside again and identified the part that was terrified of abandonment. Once he was in his mindful Self-state, I urged him to ask that terrified boy to show him the burdens he was carrying. Again, his first reaction was disgust at the boy's weakness, but after I asked him to get that part to step back, he saw an image of himself as a young boy in his parents' house, alone in his room, screaming in terror. Peter watched this scene for several minutes, weeping silently through much of it. I asked him if the boy had told him everything he wanted him to know. No, there were other scenes, like running to embrace his father at the door and getting slapped for having disobeyed his mother.

From time to time he would interrupt the process by explaining why his parents couldn't have done any better than they had, their being Holocaust survivors and all that implied. Again I suggested he find the protective parts that were interrupting the witnessing of the boy's pain and request that they move temporarily to another room. And each time he was able to return to his grief.

I asked Peter to tell the boy that he now understood how bad the experience had been. He sat in a long, sad silence. Then I asked him to show the boy that he cared about him. After some coaxing he put his arms around the boy. I was surprised that this seemingly harsh and callous man knew exactly how to take care of him.

Then, after some time, I urged Peter to go back into the scene and take the boy away with him. Peter imagined himself confronting his dad as a grown man, telling him: "If you ever mess with that boy again, I'll come and kill you." He then, in his imagination, took the child to a beautiful campground he knew, where the boy could play and frolic with ponies while he watched over him.

Our work was not done. After his wife rescinded her threat of divorce, some of his old habits returned, and we had to revisit that isolated boy from time to time to make sure that Peter's wounded parts were taken care of, especially when he felt hurt by something that happened at home or on the job. This is the stage IFS calls "unburdening," and it corresponds to nursing those exiled parts back to health. With each new unburdening Peter's once-scathing inner critic relaxed, as little by little it became more like a mentor than a judge, and he began to repair his relationships with his family and colleagues. He also stopped suffering from tension headaches.

One day he told me that he'd spent his adulthood trying to let go of his past, and he remarked how ironic it was that he had to get closer to it in order to let it go.