



## CHAPTER 1

# What Is Resilience?

Most of us at some point will be struck by one or more major traumas: violent crime, domestic violence, rape, child abuse, a serious automobile accident, the sudden death of a loved one, a debilitating disease, a natural disaster or war. If you are very lucky, then you have never encountered any of these misfortunes; but most likely you will someday. It is estimated that up to 90 percent of us will experience at least one serious traumatic event during our lives (Norris & Sloane, 2007).

Indeed, since the first edition of this book the authors have experienced traumatic events in their own lives. One of us (Dennis Charney) lost a father and was the victim of a shooting with a shotgun that involved intensive rehabilitation. The other (Steven Southwick) lost both of his parents, helped his brother recover from the amputation of his leg, and is currently dealing with his sister's cancer and his own cancer. Both of us have found the approaches to resilience outlined in this book to be very helpful. We hope you, the readers, do as well. Traumatic events throw our lives into turmoil in unpredictable ways; no two people will respond to them in exactly the same manner. For some, the stress of the event will become chronic, lasting for years. They may undergo a dramatic change in outlook, becoming sullen, demoralized, withdrawn, cynical, and angry. Some will become depressed or develop posttraumatic stress disorder (PTSD). Horrific, intrusive memories and nightmares will haunt them for days, months, or even years, and they will feel unsafe in the world – hypervigilant – as if another serious danger lurks just around the corner. Some will take up drinking or drugs to numb their pain and dull their memories.

Nevertheless, many people will find ways to meet the challenge and continue with purposeful lives. For a period after their ordeal, they may become distressed, but in time they will bounce back and carry on. For some, it will

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be almost as if the trauma had never occurred. For others, the distress will persist, but they will find healthy ways to cope. Some survivors will even grow stronger and wiser because of their trauma. These survivors may report that their tragedy has helped them to appreciate life more, to become closer to family and friends, to find greater meaning, and sometimes to embark on a new mission in life. In the words of Elisabeth S. Lukas (1984), a protégée of the neurologist, psychiatrist, and Holocaust survivor Viktor Frankl, “The forces of fate that bear down on man and threaten to break him also have the capacity to ennoble him.”

### Resilience After 9/11

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On the clear, balmy morning of September 11, 2001, 45-year-old Jimmy Dunne was playing golf in New York’s suburban Westchester County, looking forward to qualifying for the US Mid-Amateur Championship tournament. Along with the other golfers, he was stunned to learn that planes had crashed into the World Trade Center. Dunne’s shock was intensified by the fact that his own company, the financial services firm Sandler O’Neill, was located at Two World Trade Center (the “South Tower”). As details of the damage became available, his fears were confirmed: the plane that struck the South Tower burst into flames on the 78th through 84th floors, trapping hundreds on the floors above (Dwyer *et al.*, 2002). Sandler O’Neill was on the 104th floor.

While Dunne watched television in disbelief, thousands of employees, visitors, police, firefighters, emergency medical personnel, and concerned bystanders were fighting to save lives while they struggled to understand what was happening. One Sandler O’Neill survivor, Karen Fishman, had arrived at her office in the South Tower about 8:45 that morning – moments before the first plane struck the North Tower and sent a massive, blinding ball of flame shooting through the air outside her office window. Shaking, she got up from her desk, stepped out into the hallway, and quickly found herself headed for the stairs with two colleagues who had announced, “We’re getting the hell out of here” (Brooker, 2002, p. 56).

“I don’t know why I left,” Fishman said later. “I don’t know that it was a conscious decision. It was instinct. So much depended on who you saw right at that moment.” Several other Sandler O’Neill employees left, but others stayed in the office and made phone calls assuring family members and business associates that they were all right. Still, the horrors in the neighboring building had everyone so upset that CEO Herman Sandler told his workforce, “Whoever wants to leave can leave.”

Fishman had reached the 64th floor when she heard an announcement that only the North Tower was affected and there was no need to evacuate the South

Tower. But by then the stairwell was crowded, and turning back would have meant going against the tide of people headed down, so she continued.

Fishman was on the 62nd floor at 9:03 when United Airlines Flight 175 crashed into the South Tower. Forty-two stories above her, a Sandler O’Neill assistant was on the phone with her husband – “Oh, my God” were the last words he heard her say. A trader called his wife: “There is smoke everywhere. People are dying all around me” (Brooker, 2002, p. 57).

Survivors described how the building shook and twisted when the plane struck, causing paneling, duct work, and electrical wires to fall out of the walls and ceilings. The lights went out, and the building’s sprinkler system activated in some areas, sending cascades of water down the pitch-dark stairwells as people groped their way down. Of course, neither Karen Fishman nor anyone else knew that the building was about to collapse. In a sense this was fortunate, for the evacuation was generally orderly and unhurried – some even commented later that they had paced themselves, aiming to lessen the risk of having to walk down dozens of flights with a sprained ankle (Clark, 2006).

Karen Fishman and another Sandler O’Neill employee, Mark Fitzgibbon, had reached street level and were making their way uptown at 9:59, when the South Tower collapsed. They were far enough away from the burning towers that the surrounding skyscrapers partially obscured their view. Like many who witnessed the event, they had no idea that the entire building was gone; they thought that they were seeing smoke from an explosion or a collapse affecting only the floors above the fire line. Fitzgibbon called to Karen, “Look. The top of our building is gone.” But she didn’t look back (Brooker, 2002, p. 57).

A huge wave of ash and dust burst from the ruins and covered the area like a snowfall. Stunned survivors fled by themselves or in groups, some running, some walking purposefully, others wandering as if in a fog. By 10:28, when One World Trade Center and the adjoining Marriott Hotel collapsed, news organizations had begun to report a possible terrorist connection, and other landmark buildings such as the United Nations were evacuated. Not knowing whether further attacks were imminent, New York Mayor Rudy Giuliani ordered the evacuation of lower Manhattan. This released a swelling tide of pedestrians into the streets as people attempted to get home. Transportation was severely crippled: the subway service was suspended, as were the PATH trains connecting Manhattan with New Jersey. Commuter buses stopped running, as all bridges and tunnels connecting Manhattan with the outer boroughs and with New Jersey were closed to non-emergency traffic. One survivor described taking a ferry homeward to New Jersey:

...as we got parallel [to the World Trade Center site] we could look over and see that both towers were gone. It was just a surreal feeling. Disbelief. How could this happen? Of course, at the time we knew nothing about the planes being hijacked, nothing about the Pentagon, nothing about the plane going down in Pennsylvania, or the FAA getting

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all planes out of the air. We were completely in the dark. But we could look off to the Trade Center on our right and see that this building I had worked in for 27 years was gone. It was a staggering thought. There was silence. People just couldn't believe it. (Clark, 2006)

While these events were transpiring, Jimmy Dunne was on the phone, calling first his wife and then a series of friends and associates. He tried repeatedly to reach Chris Quackenbush, his business partner and closest companion; the two had been friends since childhood. And he kept trying to call his boss and mentor Herman Sandler, but could not reach him either. Had Chris and Herman made it out of the South Tower alive? After four or five hours without word on the whereabouts of Chris or Herman, Jimmy began to fear the worst. As painful as it was to imagine, perhaps his best friends and colleagues had been murdered by the terrorists. Perhaps he would never see them again.

Still, like so many others on that chaotic day, Jimmy held out hope and maintained what he referred to as a “we are going to find them” state of mind. As he recalls, “There was a hope that there were people who had gotten out, gotten to a hospital, gotten somewhere and maybe they just couldn't make a phone call.”

His hopes received a massive boost when he was told that a junior trader in the firm had been found.

There was an intern who worked with us. He was terrific. His name was Kevin Williams. After I left the golf course I spoke to his father, who told me they found Kevin. And I was euphoric. I remember physical euphoria when I learned that Kevin was alive. It also meant that if they found Kevin, maybe they would find Chris and Herman and the others. I was euphoric. Absolute joy.

By mid-afternoon, Jimmy learned that surviving employees of his firm were gathering in a small office that Sandler O'Neill maintained in midtown. He decided to take the train into Manhattan and meet with them.

I left for the train station with great hope. But on the way, I received a call that I will never forget as long as I live. It was Kevin's father. He said, “Jimmy, Jimmy, they found Kevin Williams – but not our Kevin Williams.” And I remember physically slouching down, almost collapsing. Fortunately, there was a chair right there. I've never had anything like that happen before.

By the time the train arrived in Manhattan, however, Jimmy was surging with energy. He ran from Grand Central Station, headed toward the midtown office.

And then I remember thinking, as soon as I get there everybody's gonna be looking at me, everybody's gonna be looking for direction from me. I want to set a very different tone, one of total calm. I remember I stopped running and I walked about four blocks before I got to the office.

Under normal circumstances, Jimmy saw himself as somewhat pessimistic. “I'm like the French Foreign Legion: I prepare for the worst and hope for the best.”

But on September 11, coming to terms with the news that the World Trade Center attack had been perpetrated by terrorists whose goal was to kill as many Americans as possible and create a sense of mass hysteria among the living, he remembered something his father had told him decades earlier. Jimmy and his father had been sitting together watching an Army–Notre Dame football game, and Notre Dame was crushing Army 40–7.

That’s when Jimmy’s father turned to him and said, “Now is the time that I would like to be a lineman on the Army squad.”

Jimmy didn’t understand.

Why would anyone want to be on Army? They’re being beaten 40–7! And we liked Notre Dame better than Army. Plus, being a lineman for Army, you’d be outweighed by something like 80 pounds. I can’t think of a less desirable position to be in. So, I asked my father, “Why?” And I remember what he said like it was yesterday: “Because the guy on the other side of the line is gonna find out what I’m made of. I would wreck holy hell on that guy.”

In his own way, after the destruction of September 11, that’s what Jimmy did.

The moment I heard what the terrorists wanted, I decided to do exactly the opposite. Osama Bin Laden wanted us to be afraid. I would show no fear. He wanted us to be pessimistic. I would be incredibly optimistic. He wanted anguish. I would have none of it.

The determination to “show them what I’m made of” served him well in the hours and days after the attacks, as the scope of the catastrophe became clear. As hard as he may have tried to prepare himself to face severe losses, the damage was unimaginable. Of 171 Sandler employees, 66 died (Kroft, 2001). Among them were Jimmy’s close friends and fellow managing partners, Chris Quackenbush and Herman Sandler. In all, the deaths of the firm’s workers left 46 widows and widowers, and 71 children under age 18 who had lost a father or mother. Furthermore, Sandler O’Neill was a small enough firm that its operations had been concentrated in the Two World Trade Center office. All of the company’s paperwork and computer systems were destroyed. As *Fortune* magazine reported, “Every phone number of every person Sandler’s traders had done business with over the years was vaporized” (Brooker, 2002, p. 60). Even more devastating was the loss of corporate memory.

Suddenly Dunne, who previously had shared responsibilities with Quackenbush and Sandler, was thrust into the role of chief executive and decision maker. The firm was so terribly crippled – should he simply dissolve it? If not, how could he possibly guide it to survival? Would an attempt to stay in business merely prolong the agony? How could so many traumatized employees manage to function and conduct business when they were grieving for their lost colleagues?

One of the first crucial decisions Dunne made was to “do right by the families” of those who had died (Nocera, 2006). He personally attended dozens

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of funerals and delivered eulogies for many. Despite the financial burden, comprising a third of the firm's working capital, Sandler O'Neill paid the salaries of the deceased employees through December 31, 2001 (McKay, 2002). The company paid bonuses and extended family health-care benefits for five years. In addition, the firm set up a fund for the education of the children who had lost a parent, and it provided five years of psychological counseling for all family members and for surviving employees.

Another of Dunne's crucial decisions was that he would find a way to carry on with business. If the firm failed, it could no longer support his colleagues and their families. Failure would also mean success for the terrorists. Although there were rumors – including a CNBC report – that the firm was closing, Sandler's operations never came to a halt. As much as Dunne felt the profound pain of his colleagues, he knew that the firm's only chance for survival was to rebuild immediately.

Early on we got everyone together and they were in various levels of their pain. I said, "Look, everybody is re-evaluating their lives after 9–11." And I said, "That's fine. You can go ahead and re-evaluate your life. That's OK. And some of you may decide that coming to the city every day and chasing the dollar is not worth it, and that you should work in the post office and teach lacrosse. That's great. Some of you may want to go take a trip around the world. That's fine too. But I can tell you what I am gonna do. I'm gonna put on my Brooks Brothers suit every day and I am gonna come to work, and I am gonna rebuild this firm, and I am gonna pay for these benefits, and I am not gonna give in. That is what I have decided to do. Now for those of you who want to be doing the same thing, we have to be doing it *now*. And those of you who want to re-evaluate things and think differently, I wish you well. Go do it."

By September 17, the day the New York Stock Exchange reopened, the firm was set up in temporary office space donated by Bank of America and prepared to resume trading. Dunne and the other managers saw rebuilding the firm as a moral imperative. They were determined to honor their lost colleagues and make the trades that their colleagues no longer could. Several weeks later, after his first visit to Ground Zero, accompanying a colleague's widow who wished to view the site, Dunne commented to a co-worker, "...if I was determined before, I'm on fire now" (Brooker, 2002, p. 53). As founding partner Tom O'Neill told CBS's *60 Minutes*, "I don't think we appreciated the depth of [the terrorists'] hatred, but I think for every percentage that we might have underestimated them, I think they very much underestimated us" (Kroft, 2001). By the first anniversary of the attack, Sandler had hired 81 new employees and closed 59 deals, including 15 mergers worth \$2.7 billion.

Although immersing himself in work was a healing influence for Dunne in many ways, the emotional toll was still vast. A year after the attacks, Dunne told National Public Radio's Scott Simon, "I'm better when I'm busy, but the very first thing I think about when I wake up in the morning and the very last thing I think about at night are those planes" (Simon, 2002). Then-Chief Operating

Officer Fred D. Price, who had been away at a conference in Seattle on September 11, agreed:

When you are busy and active you don't think about it, but when it's quiet, when you are driving alone, or on weekends when you get up in the morning, that is when I vividly miss [my colleagues]. . . . Some days, I feel bad and some days I feel good and I never know why. . . . Weekends are tougher, and Sunday is my ugliest day. It's when I've got time on my hands. (Wayne, 2002)

The grief that Jimmy felt was unlike anything that he had experienced. Reflecting on the loss of his lifelong friend Chris Quackenbush and his mentor Herman Sandler, he likened it to the utter despondency that history tells us Thomas Jefferson experienced upon the death of his beloved wife Martha in 1782:

It was absolute grief, the kind of grief that Thomas Jefferson talks about, grief without a point. I felt that kind of grief at Chris's funeral after I spoke, and when I went to see [Herman's widow] Suki Sandler. When other people talk about their grief, sometimes you don't even know what they're talking about. You don't really know what real grief is. Now I think I know. I think I have a sense about absolute grief. Those are the times I just broke down.

Five years later, *New York Times* reporter Joe Nocera interviewed Dunne and noted that "his eyes would well up while his voice would start to crack" when he talked about his partners (Nocera, 2006). Yet, far from being a sign of weakness, Dunne's heartfelt emotion was the driving force in his rescue of the firm. Jimmy Dunne personifies resilience in his unwavering determination to bounce back from the brink of despair, and to grow in the process, becoming a more compassionate, dedicated leader than he had been in the past.

## How We Became Interested in Resilience

Our interest in resilience evolved during nearly 20 years of treating and studying trauma survivors who came to us for help with conditions such as depression and PTSD. In our research, we examined the psychological, neurobiological, social, and spiritual impact of having lived through overwhelming traumas such as combat, child abuse, physical and sexual assault, and disasters including the World Trade Center disaster and Hurricane Ike (Charney *et al.*, 1993, 1996; Bremner *et al.*, 1993, 1999; Southwick *et al.*, 2006, 2007; Stellman *et al.*, 2008). We, and many other researchers, discovered alterations in psychological view of self and others, in the brain circuits that respond to frightening situations, and in feelings about one's purpose, meaning and place in the world. These alterations often had profound negative effects on the lives of our patients.

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As we worked with traumatized individuals, we often wondered about survivors who seemed to somehow cope effectively with the negative effects of stress, those who did not develop stress-related symptoms, or who, if they developed symptoms, carried on successfully nevertheless. The term “resilient” (meaning having the capacity to bend without breaking, to return to an original shape or condition) described these survivors well. They had been “bent” by their traumatic experiences, but not broken.

## Defining Resilience

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What is resilience? In the physical sciences, materials and objects are termed resilient if they resume their original shape upon being bent or stretched. In people, resilience refers to the ability to “bounce back” after encountering difficulty. The American Psychological Association defines it as “the process of adapting well in the face of adversity, trauma, tragedy, threats and even significant sources of stress – such as family and relationship problems, serious health problems, or workplace and financial stresses.”<sup>1</sup> In his book *Aging Well*, Harvard University psychologist George Vaillant (2002) describes resilient individuals as resembling “a twig with a fresh, green living core. When twisted out of shape, such a twig bends, but it does not break; instead, it springs back and continues growing” (p. 285).

Resilience is complex, multidimensional and dynamic in nature (Bonanno, 2004, 2005; Carver, 1998; Layne *et al.*, 2007; Luthar *et al.*, 2000; Rutter, 1985). While experts define resilience in a variety of ways (Southwick *et al.*, 2014), a common thread in their definitions is the ability to weather adversity. This does not mean being impervious to adversity – a resilient person may be deeply affected by a traumatic event, and may experience psychological symptoms such as depression, recurrent intrusive memories, or hypervigilance – but it does mean being able to carry on with the important facets of one’s life in spite of painful and distressing symptoms or even full-blown PTSD. In some definitions, resilience also entails the ability to grow from adverse events and find meaning in them.

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<sup>1</sup> American Psychological Association Help Center. Accessed October 13, 2017 at <http://www.apa.org/helpcenter/road-resilience.aspx>. It is worth noting that researchers have identified a coping style called hardiness which involves a constellation of personality characteristics associated with high performance under stressful conditions. These characteristics include commitment (the tendency to engage fully in life activities), perceived control (belief in one’s ability to exercise control over life circumstances), and challenge (the tendency to view adversity as a challenge). See, for example: Kobasa (1979), Kobasa *et al.* (1982), Bartone (1999), Maddi (2005), and <http://www.hardiness-resilience.com>



When faced with adversity, people may be more competent in some domains of their lives than in others, and during some, but not all, phases of their lives. For example, an individual may be remarkably sturdy in responding to adversity at work, but not so much in handling family or other interpersonal stresses. Or a person may demonstrate resilience to stress at a young age, but not as he or she grows older. It is important to note that healthy adaptation to stress depends not only on the individual, but also on available resources through family, friends, and a variety of organizations, and on the characteristics of specific cultures and religions, communities, societies, and governments – all of which, in themselves, may be more or less resilient (Southwick *et al.*, 2011).

Researchers have developed various tests to measure resilience; among them are the Connor–Davidson Resilience Scale (Connor & Davidson, 2003) and the Response to Stressful Experiences Scale (Johnson *et al.*, 2008).

These tests are self-report instruments with a five-point Likert scale (strongly agree, agree somewhat, etc.) and include statements such as the following:

- During and after life’s most stressful events, I tend to find opportunity for growth.
- I have at least one close and secure relationship that helps me when I am stressed.
- When there are no clear solutions to my problems, sometimes fate or God can help.
- During and after life’s most stressful events, I tend to calm and comfort myself.

Additional tests of resilience include the Dispositional Resilience Scale-15, which focuses on three dimensions – being fully engaged, having a sense of control over events, and being able to view adversity as a challenge – and the Resiliency Scale for Children and Adolescents, which assesses an array of attributes related to mastery, relatedness, and emotional reactivity (Bartone, 2007; Prince-Embury, 2008).

## What Makes Some People Resilient?

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When we began our research, we had many questions. Why do some survivors appear relatively unscathed by their trauma, while others develop debilitating disorders such as PTSD, depression and alcohol dependence? (For more information about PTSD, please see Appendix 1.) And why do some survivors who develop trauma-related psychological symptoms continue to function well in spite of their symptoms? Do they differ genetically? Is there something unique about their nervous system? Have they been raised in a special manner? What about their personalities? Do they use

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specific coping mechanisms to deal with stress? And if we learn more about how they dealt with stress and trauma, will these lessons be helpful to PTSD patients and to the general public? Can the average person learn to become more resilient?

These were the questions that we asked ourselves as we began to investigate social, biological, psychological, and spiritual factors associated with resilience to stress. And, of course, we also wondered whether these lessons would be helpful to us. Could we, ourselves, learn to become more resilient? We had many unanswered questions.

So, we made a decision to search actively for answers to our questions about resilience. We knew that our task would be daunting, because anyone who has spent time studying human behavior, or investigating the nervous system and brain, understands that thoughts, feelings, and behaviors are the complex products of genetic, biological, psychological, and social forces. Resilience is far more than a simple psychological trait or biological phenomenon. To truly understand it, researchers must approach it from multiple perspectives and examine it through a number of different scientific lenses. We did this by reviewing the available scientific research and popular literature on resilience, by initiating our own psychological and neurobiological research on the topic, and by conducting in-depth interviews with a large number of highly resilient individuals (Southwick *et al.*, 2005).

To conduct these interviews, we needed to step out of our traditional clinical and research settings, and to go into the community and recruit people who had clearly demonstrated resilience in the face of extreme stress. We turned to three groups of highly resilient individuals: former Vietnam prisoners of war (POWs), Special Forces instructors, and civilian men and women who had not only survived enormous stress and trauma, but had somehow endured or even thrived.

### **We Interviewed Former Vietnam POWs**

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We began by conducting detailed and lengthy interviews with more than 30 former Vietnam POWs. We chose to study former POWs for several reasons. First, the traumatic experiences they endured were extreme and of long duration; for some, the ordeal lasted for more than 8 years. Second, because their captivity took place decades ago, we could examine how their lives had unfolded over many years after the trauma. Third, we believed that the former POWs were good role models and that their methods of coping with stress and trauma would be highly instructive for anyone facing or recovering from their own stressors.