



U.S. STAFF SERGEANT EDUARDO LOREDO (WITH THE RED BERET) DIED IN AFGHANISTAN WHEN A BOMB EXPLODED NEXT TO HIS PATROL. HIS WIFE, JENNIFER, MOURNED FOR A LONG TIME. BUT EVENTUALLY SHE DEVELOPED A MORE CELEBRATORY APPROACH TO LIFE THAT BROUGHT HER CLOSER TO THEIR THREE CHILDREN.

# The best thing that ever happened to us

We know that traumatic experiences can play havoc with our well-being. But new evidence suggests that trauma can also lead to *positive* change in our lives. What we can learn from the people who experienced post-traumatic growth. BY ANDREW TOLVE

**T**HE DAY BEFORE HIS 35TH BIRTHDAY, U.S. Staff Sergeant Edwardo Loredo was wounded by an improvised explosive device during a routine patrol in the south of Afghanistan. His wife, First Sergeant Jennifer Loredo, was stationed in the north of Afghanistan at the time, where she oversaw deployment of the first comprehensive dental services for U.S. soldiers in the Afghan theater. Her commander pulled her aside, told her that her husband had lost his left leg in an accident, and instructed her to go pack a bag—the Army was flying her to the hospital to be there when he emerged from surgery.

“We’ve all seen the pictures of wounded warriors with prosthetic limbs running the 10-miler,” Jennifer Loredo recalls of that day in June 2010. “To me, that was what our life was about to be like. ‘Gosh, you’re sure

going to have to be supportive,’ I told myself on the flight.”

Upon her arrival, she ran into the hospital, only to have the ground fall out from beneath her for the second time in 24 hours. “Learning that my husband was no longer alive... I just don’t know that’s ever something you can be prepared for,” Loredo says. “I was upset, shocked, angry. You name it, I was experiencing it.” The next day she followed Edwardo’s flag-draped coffin through a ramp ceremony and onto a plane bound for the States, where she sat a few feet from his remains for the entirety of the flight. “That haunts me to this day,” she says. “That was a horrific experience.”

A soldier returning with the level of trauma that Loredo had experienced easily could have descended into the throes of post-traumatic stress disorder (PTSD), the

psychological condition in which traumatized individuals find themselves reliving past horrors, often to the point of utter debilitation. People with PTSD can have trouble sleeping, experience frequent nightmares or hallucinations, try to avoid people or situations that remind them of their traumas, and get overly emotional yet struggle to share their emotions with those around them. These symptoms are the same whether the trauma was a wartime horror such as Loredo’s, the loss of a loved one, cancer, rape, robbery, divorce, getting fired from a job or some other unforeseen and unwelcome event that has the potential to create extreme stress in our lives. An estimated 70 percent of adults will experience a traumatic event at least once in their lives, according to the Posttraumatic Stress Disorder Alliance, and roughly one in four of those





"CANCER IS THE BEST THING THAT EVER HAPPENED TO ME," SAYS DAVID DORFMAN, A NEW YORK LAWYER WHO USED TO SPEND LATE NIGHTS OUT CAROUSING AND DRINKING. BECAUSE OF HIS DISEASE HE STARTED PRIORITIZING HEALTH AND FITNESS.

me" is a common refrain for those who have faced negative experiences and come out better on the other side. Yet in the psychology community, positive mental growth stemming from trying circumstances has traditionally been ignored as a serious field of research.

"Psychologists and other mental health professionals typically focus on people who are not doing well," explains Tedeschi. "We [psychologists] have come to put our energy into looking at disorders and problems and anomalies." Additionally, "some people are just skeptical about the whole concept that people can make good use of these traumatic experiences," he says. In the mid-1980s, Tedeschi and Lawrence Calhoun, his peer at UNC Charlotte, mined the literature and found little about positive responses to negative situations.

So they started conducting qualitative studies to see what they could learn. Their first study gathered a group of people who had overcome difficult setbacks, such as paralysis, blindness or the loss of a lifelong partner. Their research found that not only had these people often experienced impressive transformations, but these transformations consistently fell into the same five categories; better relationships with others, improved personal strength, heightened spiritual satisfaction, renewed appreciation for life, and a desire to find new possibilities, interests and professional pursuits. "We started hearing consistent messages about how they managed their situations and what they had learned in the process," Tedeschi says. "From what they told us, we developed the idea of post-traumatic growth."

To measure the phenomenon, Tedeschi and Calhoun created "The Posttraumatic Growth Inventory," a series of questions that allows researchers to delineate benefits that patients have drawn from a negative experience. An international array of psychologists have gone on to corroborate and add to Tedeschi and Calhoun's pioneering work. In 2010, Weiss co-authored the book *Posttraumatic Growth and Culturally Competent Practice*, which includes documentation of PTG from prisoners of war on both sides of the Israel-Palestine conflict, Chinese cancer survivors, Dutch and Turks coping with natural disasters, German survivors of the 1945

that agony challenges you to retell the story of your life, to reevaluate who you are, what is important, what are your priorities, who do you care about, and what do you want to do with the rest of your life. From that comes growth."

In Loredó's case, the trauma of her husband's death was difficult to overcome. She often thought about that flight home beside his coffin and grieved about what might have been. But working through these complex emotions brought her closer with her three children and allowed her to cultivate a more celebratory approach to life. It also provided new focus at work. In the fall of 2010, she created a support program for families of fallen soldiers at Fort Bragg, North Carolina. She then launched a larger program at Fort Bragg to help soldiers better prepare for trauma in the field. Loredó has since been promoted to master sergeant and moved to Washington, D.C., where she has helped the resilience program become mandatory training for every soldier in the U.S. Army.

"It's heartbreaking to think about how soon our relationship ended due to Eddie dying," Loredó says. "We were so happy, so crazy in love. We were ready to take on the world and had plans for the future. But every day I take that momentum and keep it going forward."

**M**YTHS AS OLD AS MAN TELL THE stories of heroes overcoming tragedies. Spiritual texts like the Bible and the Quran teach of surmounting hardship and finding meaning after loss. "It's the best thing that ever happened to

Dresden bombings, Spaniards who survived the 2004 Madrid train bombings and Latina immigrants scarred by the experience of illegally crossing the border into the United States. "PTG is universal," concludes Weiss.

Estimates vary for exactly what percentage of trauma survivors experience PTG. Some studies find 50 to 60 percent, others closer to 75. The question now is not whether the phenomenon exists but rather why some people, like Loredó, experience this positive growth while others experience nothing at all or descend into PTSD. Researchers posit several important factors. The first is a group of personal qualities like optimism, openness to new experiences and an ability to cope. Tedeschi's research shows that those who lack these qualities altogether can be so overwhelmed by trauma that they find it impossible to move on. In contrast, those with an abundance of these qualities, people whom psychologists label "resilient," can simply shrug off trauma without growing in the process.

"Those who are resilient often don't have room to grow," Tedeschi explains. "They're typically already at the ceiling and have maxed out in their understanding of how to live." It's those who possess a moderate degree of optimism, openness to new experiences and an ability to cope who are thus "ideally suited" for PTG, he says.

A second factor is the support of family, professional guidance and role models who can help foster growth. Weiss conducted a study with breast-cancer survivors that found that the single best predictor of growth was having contact with someone who had already gone through the same trauma and who could offer support and guidance for the patient still in treatment. "In attempting to make meaning of a trauma, encountering models of growth is critical," Weiss says.

**C**ONSIDER DAVID DORFMAN, A FORMER New York City lawyer who in the summer of 2006 found a lump in his neck while shaving. Within the week, the then-39-year-old was diagnosed with lymphoma; within months he was in chemotherapy, traumatized by the withering of his body and at times confined to bed, where he was isolated from his family and struggled to chew and swallow food. "Right around Christmastime, I was sitting at the cancer hospital next to a new candidate in a

chemo suit, and she looked better than all the other patients," Dorfman remembers. "More vibrant and happier and more energetic. I asked what her secret was."

"You should come and join my triathlon team," she said.

Dorfman thought this sounded crazy: Walking was an effort, let alone attempting a triathlon. Besides, even in his healthier days he had never been the triathlon type.

"Maybe when this is all over, I'll go run a marathon," he joked.

"Don't wait," she said. "Do it now. Do it right now."

"I remember she was so serious about doing it right now," Dorfman says. So he went to the team's practice that Saturday in Riverside Park, on the Upper West Side of Manhattan. The following few hours were grueling and often taken at a trot or a walk, but he kept at it. "By the end I felt tired and fatigued, but I also felt warm and sweaty and a little better," he says.

Dorfman returned the next week and the week after that and completed his first triathlon in April 2007, less than a year after he was first diagnosed and the same month that his tests showed that he was in remission. Rather than return to his old life as a lawyer, he started prioritizing health and fitness in his life. In October 2007, he ran the Chicago Marathon; in 2010 he laced up for Ironman Lake Placid; and in 2011 he moved to Princeton, New Jersey, where he now serves as the director of the Cancer Fitness and Rehabilitation Program at Can Do Fitness and is a certified coach with USA Triathlon, a personal trainer and a certified cancer exercise specialist.

"Cancer is the best thing that ever happened to me," he says. "Similarly, my wife will tell you that my cancer is the best thing that ever happened to her. Before cancer, I was very much a New York lawyer who spent late nights out carousing and drinking and spending money and misbehaving and being interested mostly in my own personal selfish happiness. Now I recognize how she cared for me when I was sick and feel great appreciation for her efforts and see how much stronger we are acting as a team together."

Thanks to recent breakthroughs in neuroscience, we now know what the human brain looks like under heavy stress. Brain scans of patients with PTSD reveal a

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DAVID DORFMAN





ANNEMARIE CICCARELLA WAS DIAGNOSED WITH CANCER IN 2006. AT FIRST, SHE HAD A HARD TIME LIVING WITH HER DISEASE. BUT HAVING STARTED TO WRITE ABOUT IT, SHE NOW ACCEPTS IT, AND RECOGNIZES THAT THE CANCER ALSO LED HER TO GOOD THINGS.

which can lead to poor judgment.”

The hope for PTG is that its lessons will be able to help trauma survivors whose brains are suffering the way Roozendaal describes. Encouragingly, recent studies suggest that trauma survivors can move from PTSD to PTG. One study of Israeli ex-prisoners of war found that those with PTSD ultimately experienced higher levels of PTG than those who never experienced PTSD at all. In other words, the more we struggle with our traumas,

the more we may ultimately grow as a result.

“For growth, you have to experience stress and go through the questioning and processing that comes with it,” says the University of Tel Aviv’s Sharon Dekel, who co-authored the POW study. “Cognitive re-evaluation of an intense experience—that’s what leads to PTG.”

**A**SUREFIRE WAY TO GUIDE THOSE with PTSD to PTG does not exist, but researchers point to clinical support as an important stepping stone. Informed clinicians can help patients navigate their way through the pain and processing of trauma in a constructive way. “When people talk about things like ‘I wonder what’s the point of it all’ or ‘I can’t believe this happened to me,’ I see that as positive,” Tedeschi says. “Ultimately, as they struggle with these kinds of issues, they’re going to examine profound things about living. It’s out of those questions that the themes of PTG start to develop.”

Clinicians versed in PTG can also balance the need for pharmaceutical aid with the need for processing, which can’t happen if a patient is drugged to the point of numbness. “The impetus for growth is the struggle, so if you blunt the struggle, you may deprive people of the opportunity to grow,” says Weiss. “On the other hand, they may need to get the necessary support in terms of pharmaceuticals to sustain the painful process of living and reflecting, so it’s a very delicate process.”

Another step is to join support groups. Athletic teams can be beneficial, especially when they consist of fellow trauma survivors, like the cancer triathlon team that Dorfman joined. More cerebral activities, like meditation, yoga, group talks and

swollen amygdala, the brain region responsible for generating emotions and amplifying memories. The amygdala is swollen due to an excess buildup of the hormones cortisol and noradrenaline, which our bodies release when we’re presented with an arousing situation like an explosion, an alarm or a cry for help. Due to the rush of hormones in our heads, “we get hyper-alert and physically stronger,” says clinical psychologist Jeffrey Janata, director of the behavioral-medicine program at Case Western Reserve University, in Cleveland, Ohio. “We become incredibly cognitively and mentally focused.”

That focus is beneficial in the short term, as it allows us to perform at a high level in the face of danger or duress. The trouble is that if these hormones stick around over the long term, long after the stressor is gone, they start to have harmful impacts on our bodies. Chronic stress can lead to headaches, irritable bowel syndrome or joint and muscle pain. As the amygdala swells under extreme chronic stress, it wrests control from the prefrontal cortex, the region of the brain normally responsible for day-to-day decisions.

“In some brain regions you get retraction of synaptic contacts, so cells become less active under highly chronic conditions,” explains Benno Roozendaal, a professor of neurobiology and anatomy at the University of Groningen, in the Netherlands. High levels of cortisol also impair memory recall, “so if you’re chronically stressed, you may have problems recalling information and your working memory may also be impaired,

expressive writing, work too, as AnneMarie Ciccarella of Long Island, New York, can attest. In 2006, she was diagnosed with invasive lobular carcinoma, an uncommon type of breast cancer. After years of chemo, she had a total hysterectomy in 2010.

“That completely destroyed me emotionally,” she says. “At that point, I’m taking a step back, saying, ‘Oh my God, there’s nothing left that makes me physically different from a man. I have no distinguishing female parts left.’”

With encouragement from a friend, Ciccarella enrolled in the Visible Ink expressive writing program at Memorial Sloan-Kettering Cancer Center, in New York City, which helps patients tell their stories as a vehicle for catharsis and empowerment. “In serious illness or trauma, your narrative is usurped and people are required to cede a huge amount of personal control,” says Judith

Kelman, founder of Visible Ink. “The power in our program is giving people the opportunity to own their stories again.”

Ciccarella decided to write about “chemobrain,” a side effect of chemotherapy that affects patients’ ability to focus, self-motivate and remember words and tasks. Within weeks of launching the Chemobrain blog, her candid, colorful commentary had earned her an audience on every continent but Antarctica. She now hosts weekly “Breast Cancer Monday” chats on Twitter, has been featured in documentary films and on National Public Radio, sits on a government grant review panel for funding innovative research, and acts as a chemobrain thought leader and advocate.

“The diagnosis sucks,” she says. “Living with the diagnosis sucks. Knowing that I have to go to the doctor is horrible. But in the end, that was the vehicle that allowed

me to get to the place where I am now, and I’m happy to be here. However I got here, I’m grateful that I was able to take such a negative experience and follow it to a place where I feel fulfilled.”

**D**ESPITE THE FAMILIARITY OF MOVIES, books and religious parables that tell of overcoming adversity, people often lose sight of the potential for positive narratives when it comes to their own setbacks and traumas, especially these days, with PTSD being such a frequent topic of discussion in the news as soldiers return from Iraq and Afghanistan with the condition. Tedeschi recalls a survey at West Point in which cadets were asked about their likelihood of incurring PTSD. The vast majority thought they would. When asked if any had heard of PTG, hardly a single cadet said yes.

“They’re biased from the beginning,”

# How to cope with stress

*The Intelligent Optimist’s guide to stress.*

## 1. Find an appropriate challenge

We tend to think of stress as a bad thing, but the truth is that a stress-free life would be no life at all. That perfect beach in paradise would quickly turn into purgatory if we had to sit on it day after day with no challenges to confront and no people to interact with. Challenges and stress in the right proportions give us a sense of accomplishment and fulfillment, which in turn make it fun to escape to paradise to celebrate.

“If stress is too low, we don’t perform well, and if it’s too high, we also don’t perform well,” says Jeffrey Janata, director of the behavioral-medicine program at Case Western Reserve University, in Cleveland, Ohio. “The task is to get in the middle range that works for us.”

Landing in the middle range often comes down to self-control. We must push ourselves enough to be challenged but not so much as to be overwhelmed. If an important deadline is approaching, blowing it off altogether to watch the latest season of *Downton Abbey* won’t lead to the best results. Likewise, convincing ourselves that a given task is make-or-break for our life ambitions also isn’t ideal. “From a psychological perspective, we have to motivate ourselves enough but not be scared to death,” says Janata.

## 2. Make time for positive stress

Long-distance runners describe a feeling deep in a race when they become so at peace with the rate of their steps, the cadence of their breathing, the slap of their shoes against the pavement, that the pain in their legs becomes inconsequential. This phenomenon is called “runner’s high” among runners. Psychologists call it “eustress,” a combination of the words *euphoria* and *stress*.

“The feeling of being on, being in the zone—that’s what eustress is,” says Debra Nelson, a leadership training expert and a professor of business administration and management at Oklahoma State University. “You’re so immersed in it, so vigorously engaged, that time slips away.”

Eustressful situations come in all shapes and sizes and vary from person to person. Whereas the final moves of a chess match may be eustressful for some, the summit of a hike or the final signature on a sale may be eustressful for others. Whatever your eustressors are, identify what causes them and seek out those activities.



Tedeschi says. “They think, *If I’m going into combat, I’m going to have to deal with PTSD*, which is not actually the case. They have very little recognition that their response can be the opposite.”

Understanding trauma and the human response to it *before* it happens is a final step toward improving our chances for growth. The U.S. Army has taken note. With Loredó’s help, it has launched Comprehensive Soldier Family & Fitness (CSF2), a program that aims to mentally and emotionally strengthen soldiers. Every soldier in the Army now must take an annual online survey that measures health in different areas—physically, socially, spiritually, emotionally and in family life. Each battalion is required to have a master resilience trainer, who encourages growth where soldiers

need it and helps them to share personal experiences with fellow soldiers to learn from one another.

“The program takes a proactive approach to teaching people about themselves and about resilience, so if and when something bad happens, they’ll have the skills to bounce back,” says Loredó.

Taking a proactive approach to trauma is a lesson we all can learn. Strengthening our bonds with others, ensuring a sense of purpose in life and pondering our place in life will go a long way toward keeping us growing and optimistic, even when the darkest times come. ■

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**ANDREW TOLVE** *lives in New York City, a place that provides endless opportunities for both stress and growth.*

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# How to cope with stress

### 3. Give yourself a break

The counterpart to maximizing your eustress is mitigating your distress. A bad boss is a bad boss. A lousy commute is a lousy commute. Janata likens distress to dirty gasoline: “If you’re pouring dirty gasoline into a carburetor, there are two different strategies. You can filter the gas before it gets there, or you can keep taking the carburetor apart and cleaning it.”

Taking the carburetor apart requires shutting the engine down and giving the car a break. This break could be a vacation or a nice dinner out. It also could be smaller breaks in the midst of a stressful task. Janata did a study that demonstrated that if employees take just 60 seconds to relax every 30 minutes at work—stand up from your chair, go for a walk, get a drink of water, etc.—it effected an enormous change in their job satisfaction.

“Previous generations would get up and take a water-cooler break or move around,” says Janata. “We don’t do that as much anymore, but it’s important.”

### 4. Lessen the stressor

The trouble with taking the carburetor apart is that you have to do it over and over. A more sustainable technique is to filter the dirty gas before it gets into our system. One way to do this is to reinterpret the stressors in our lives.

“If you don’t have any idea what a gun is and someone points one at your head, you won’t get stressed, because you don’t perceive it as a threat,” says Janata. That’s not to say that we should get cozy with the idea of a gun pointed our way. What it means is that a stressor stresses us out for specific reasons, and if we identify those reasons, perhaps we can find ways to lessen the stressor.

We generally perceive a bad commute as a threat because it infringes on our free time. If you’re in a subway, try downloading games, music or podcasts onto your phone or start bringing a book. In a car, play an audiobook or get Bluetooth so you can catch up with friends while you drive. As for a bad boss, perhaps that boss stresses you out because he or she challenges your judgment or doesn’t let you feel engaged. Having a forthright conversation about your own strengths and ideas and how best to marry those with your boss’s expectations and needs could make the relationship healthier.

“Engagement and meaningfulness—you’re more likely to experience eustress even in Cubicle Land if you have those two attributes in your life,” says Nelson. | **A.T.**