

THE UPSIDE OF STRESS by Kelly McGonigle
Book report and comment by David G. Schwartz, M.D.
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A book written by Kelly McGonigle. This book states that stress is good for you, depending on your mindset. She defines stress as what comes up when what we care about is at stake. That covers a lot of situations, but “stress” is a loaded term and includes more than that definition. We face many kinds of stress, some of which are emotional stress, physical stress, chemical stress, physiological stress such as cold or heat, neurological stress like pain, and muscle resistance like exercise, and intellectual stress, such as mentally challenging tasks, etc. Each one of these forms can be beneficial or harmful, depending on how it is handled. Most of what I see people calling stress is emotional stress, and they often experience it as “distress” or “toxic stress”, which they perceive as harmful. This often is a socially acceptable way of reporting time pressure, anxiety, worry, frustration, sadness, depression, anger, or family and relationship conflicts, etc., sparing the listener the gory details.

The author points out the benefits of growth, resilience, strength, etc. which result from a stressful situation if it is faced with a positive mindset. That is taking action, seeing the situation as a challenge, a meaningful experience, an opportunity, turning anxiety into excitement, and connecting with other people to give and receive support, often taking the focus off oneself in the process of being helpful to others. If instead the mindset is on fear, worry, irritation, annoyance, and isolation, and on believing that the “stress” is going to be harmful, then it does result in harm or “toxic stress.” The book presents practical methods of retraining one’s mindset. The author is a health psychologist, and this retraining is often a part of Cognitive Behavioral Therapy, but the book is not intended as psychiatric or medical advice. If these methods don’t go far enough, or if the “stress” is compounded by more severe emotional or psychiatric problems, more in depth services are available in the counseling and psychiatric community.

The author also gives a caveat that although a positive mindset can modify any situation to improve it, the very severe disasters, tragedies, injuries, etc., can still lead to harmful results.

The important thrust of this book is to dispel a common myth that stress is the enemy, and that people should avoid it. This idea may have come from Hans Selye’s research on stress with tortured animals, creating stress that was uncontrollable, unpredictable, and devoid of meaning, and he concluded that any demand on the body is stressful and accumulates harm. He later modified his hypothesis to say that only excessive stress accumulates harm, and that some forms of stress, especially small to moderate stresses are not harmful. By then the faulty perception of stress was already out and was influencing many ideas, attitudes, policies, and methods in the medical community and in the general public. This has continued to this day. People now fear stress because they do not have a constructive mindset to deal with it and lack the confidence that they can actually use stressful situations to improve their lives.

It is important to note that the growth and development of all plant and animal life requires some type of stress. A muscle will not grow and maintain its strength and size without regular stress. Excess stress can lead to strain, injury, and exhaustion. For physical and physiological stress to be beneficial, it needs to be moderate.

The medical community commonly understands that the stress hormones adrenalin and cortisol help the body respond to emergencies more effectively (the “fight or flight” response), but that repeated continuous surges of these hormones are destructive over the long term. On the other hand, the author points out that DHEA, dopamine, and oxytocin are also released in the stress response. DHEA helps the brain to be more resilient in response to future stress. Oxytocin suppresses fear and anxiety, encourages empathy, compassion, social contact, courage, and intuition, and it protects heart muscle. Dopamine encourages the taking of action, the approaching rather than the avoiding response. Endorphins, which relieve pain, and testosterone, which increase stamina, also are increased with the stress response. These hormones and the attitudes and actions associated with them result in beneficial health effects, growth, and resiliency. When people viewed a video promoting positive attitudes toward stress, their DHEA increased more than cortisol when faced with a stressful situation.

Alia Crum, a psychologist at the Behavioral Research Laboratory at Columbia University, found that people who view stress as beneficial are less depressed, more satisfied with their lives, have more energy, have fewer health problems than people who view stress as harmful. This does not mean always thinking positively about everything. It means having a balanced, flexible view of stress, knowing that sometimes it can be harmful, but fearing it less and trusting oneself to handle it. It means making a deliberate choice in the middle of a stressful situation to take a confident view.

The author draws on historical perspective and research to show that people who have experienced moderately adverse conditions live longer and are healthier, especially if they found meaning in those situations, in contrast to those who had easier lives. Stress can result in the “tend and befriend” response, the desire to help others. Experiments with men doing challenging mock job interviews with pressure to perform and to be competitive resulted in their being more trusting and trustworthy, not more selfish or isolated. Removing baby monkeys from their mothers one hour per day resulted in their having more curiosity, self-control, resilience, less fear, and larger prefrontal cortices (the part of the brain that has impulse control and positive motivation), in contrast to babies that were constantly with their mothers. Artists, athletes, and surgeons, when fully engaged with their activities, do not feel calm, but exercise the “challenge response” that increases confidence, concentration, and performance.

Viewing a stressful event as an opportunity to improve skills, knowledge, and strength makes it more likely to result in a challenge response instead of the “fight or flight” response. In the recovery phase after a challenging event there is opportunity to reflect, to experience meaning and learning, and to make the brain more plastic (able to form new synapses and to increase capacity). So when we experience stress in the course of our daily lives, this is not a weakness or a psychological flaw, but a normal response that can

be harnessed beneficially. The stress paradox: Polls show that people who have high levels of perceived stress also reported more happiness, less depression, and had a wide variety of feelings such as anger and sadness as well as joy, love, and laughter. People who have more meaningful lives and are busier have more stress. Retirement can increase the risk of depression by 40% and can increase the risk of death. How a person viewed the daily challenges of life activities was a greater predictor of death than the actual events. If they were viewed as “uplifting,” the result was much better than if the events were viewed as hassles or irritations.

When students were asked to write about their values and how they relate to their daily activities, they were in better health afterward than those assigned to simply write about good things that happened to them. Writing about values helped in smoking cessation, in losing weight, and in decreasing problem drinking. In one study, writing about values for 10 minutes resulted in benefits months and years later. So how we talk about a stressful event, understanding the meaning, and the expression of our values makes a difference.

Trying to avoid stress-provoking situations leads to a vicious cycle of stress generation, creating more sources of stress, feeling overwhelmed and isolated, leading to a downward spiral.

Performance anxiety viewed as excitement can improve performance, confidence, and energy, producing better results than does trying to “calm down.”

The “challenge” response resembles physical exercise, with increased blood flow and better heart pumping action. The “threat” response results in constriction of blood flow and inflammation. The challenge response promotes enthusiasm, energy, confidence, and resilience, and boosts DHEA, nerve growth factors, and bigger brain volume. It encourages remembering past successes and recognizing current support such as prayer, etc. The threat response leads to fear, anger, self-doubt, shame, a desire to withdraw, and expecting threats in future scenarios.

The “tending and befriending” response focuses on bigger-than-self goals, sees suffering as a common human experience, releases oxytocin, dopamine, and serotonin, and enhances perception, intuition, attunement, and self control. It inspires hopeful, curious, caring, grateful attitudes, and less threat response, makes less cortisol, and reduces burnout. After a major stressful event (a terrorist attack), those who served their communities did not suffer the ill health that the other people had who did not serve. Also they had less PTSD, less pain, disability, depression, and less survival guilt. Veterans with PTSD who helped other veterans had less depression and self-medication and fewer flashbacks.

Sharing awareness of common suffering is important. Social media can result in more isolation and decreased satisfaction if people are always showing their happy faces. As a result, you may think that other people are happier than you are, since their suffering is invisible. It is important to reflect and to say, “May we all be supported through this

suffering, may we know our strength and know that we are not alone.” Just as public warnings about stress are contagious, resilience and growth can also be contagious. Empathy for people suffering adverse effects and connecting with their resilience and recovery, listening to their stories of growth and strength (post-traumatic growth) can give the listener vicarious resilience and growth. In contrast, watching TV reports of tragedies presenting hopelessness can actually cause vicarious post-traumatic stress for the viewer because there is no action taken.

In a National Geographic TV program I saw an example of values, meaning, social support, action, befriending, and the challenge response in a coming-of-age ritual for two 9 year-old boys in an indigenous tribe in the Amazon. The boys stuck their hands inside gloves that had attached scores of ants with the most painful venom known to the entire world. They held their hands in the gloves for 10 minutes, and the pain lasted for several hours afterward, nerve pain all over the body. The boys screamed but kept their hands in the gloves the full 10 minutes and danced. Adults danced with them, holding their elbows. The whole tribe sang and supported them in their ritual. After the pain wore off a few hours later, both boys were beaming with smiles and joy, eyes sparkling, exuberant, feeling confident, now that they had passed the test. One boy had actually done this once before and had not feared to do it again. After that experience, what could bother them now? I’m sure there was no Post-Traumatic Stress Disorder. Granted, this experience cannot be translated directly into our culture, but since basic human fears and aspirations are common to all cultures, this is an example of how a major stress event could be used for growth, confidence, and strength, and it shows how important the support of whole community is.

Years ago at the time of the Indonesian earthquake and tsunami, I saw a view of a man who had lost everything, standing on the rubble, smiling, expressing deep gratitude that he was not injured, and he focused on helping the other people who were less fortunate than he. This may not have been typical, but it is a shining example of what is possible in strength and resilience.

I would add that I have also seen the harmful effects of too little stress, too little challenge in children who were pampered, and not required to do much work at home, growing up lacking self confidence, and deficient in ability to handle adversity. In contrast, children at age 3 and 4 who learn food preparation, gardening, animal care, etc., learn by experience to handle difficult situations.

This book addresses mainly periodic, stressful situations, and it recognizes that exceedingly stressful events are more likely to be harmful. Although it does not state it directly, it would seem to imply that constant stress with never a break would be harmful. I think of the isolation, meaninglessness, hopelessness of the underclass of the homeless, the working poor, the refugees, those experiencing chronic mental illness, food insufficiency, habitat destruction, violence, war, physical abuse, etc. on a daily basis. This is a social problem for which we all as a global community are challenged to address. This is a stress to our world that we can do something about if we collectively take on the challenge response, the tend and befriend response, and do not get stuck in the

hopelessness of “ain’t it awful.” The global corporate economy that supports the “free market” ideology that disregards basic human rights and needs and the natural environment, in favor of shareholder value and profits and making wars counts on the working poor to either not vote at all or to vote for their sociopathic, “look out only for #1”, Ayn Randian ideology. This economic ideology that pervades a large part of our society and promotes pseudo-Darwinism is not natural. Charles Darwin himself said that love had important survival value. The examples in this book show that under stress, people naturally do altruistic things. Why can’t this principle be applied to macroeconomics? The U.S. Constitution requires the government to “promote the general welfare.” Nowhere does it say that the government should be a tool of global corporations, promoting their monopoly of profits and political speech for a few at the expense of all the other people. We can act together for healing of this situation, personally, politically, and financially if we see that we can.

There is another area that is considered a part of stress that this book does not address directly, the sympathetic overdrive that a majority in our society experience. Adrenalin and noradrenalin are stress hormones, part of the flight or flight response, driving the sympathetic nervous system. The sympathetic needs to be balanced with the parasympathetic system, the “rest and digest” system. This is an oversimplification, but basically, high time pressure, fast living, multitasking, going in debt to acquire more material things and social status, lacking in sleep and rest and relaxing hobbies, addiction to activity, and fear of silence and quiet, drives the sympathetic nervous system at the expense of the parasympathetic. This imbalance, along with environmental toxins and junk food is a toxic stress on the body and leads to chronic inflammation, the latter of which drives most or all of chronic illness. Misshapen teeth and jaws from epigenetic trans-generational effects of junk nutrition also leads to sympathetic overdrive. (See my article written January 2015 on Oral System Biology.)

Then there is the situation where some people create adverse events unconsciously as stress junkies because uncomfortable feelings would come up if things went well. These are the Calamity Jane’s who are always getting into some type of trouble. This also can be a form of toxic stress and sympathetic overdrive.

To balance the fast pace of modernity, there needs to be the slow. Going fishing, quiet hobbies, listening to soft music, dancing, singing, walking in nature, laughing, Tai Chi, Yoga, meditation, prayer, contemplation, all help to bring the parasympathetic into balance.

Other attitudes that lead to toxic stress and away from the positive ways of handling stress can be fear, worry, shame, guilt, perfectionism, judging, catastrophizing, and holding resentments. I saw a billboard on the highway a month ago that said, “Not forgiving is like drinking rat poison and hoping the rat will die.”

When a person has recently experienced a more major stress, when adrenalin has been revved up, it is advisable to avoid strenuous exercise, as that raises some stress hormones on top of that, and for someone with unstable coronary plaque (could be a large

proportion of the adult population), these stress hormones could open up plaque to rupture, causing a heart attack. That is not from the usual stresses that we experience, but the more major ones. A person needs some time after a moderately stressful event to calm down. I had a recent situation that required me to take action quickly, seek help from others, use the challenge response, etc. After the event was over and no more problem, for the next day I felt a buzzing, quivery tense sensation in my body, that took a day for it to go away. I did a lot of resting, meditation, etc., to “come down.” That challenge would not be something I would want to experience frequently.

There is also the spiritual aspect of handling stress. When we have more at stake, we experience more stress. If we surrender to a Higher Power and have less of a sense of personal ownership of things and situations, we don't take them so personally. We can still do excellent work, focusing on service, taking care of ourselves so that we can serve others better, acting as an instrument of the Higher Power. If we make a list of all the things that we call “mine,” we get a better picture of the “minefield” that surrounds us when we focus mainly on ourselves (comments of Swami Satchidananda). In keeping with the “tend and befriend” approach, if we spend a large part of our time tending and befriending, we are already prepared if a major challenge presents itself to us. The choice between the “threat response” to stress on the one hand, and the “challenge response” and the “tend and befriend response on the other, can be seen as the “fear choice” and the “love choice,” spoken of in many spiritual traditions. Albert Einstein commented that if we see the universe as an unfriendly place, we are likely to use our resources to build bigger walls and weapons. If we see it as a friendly place, we are more likely to use our resources for understanding that universe in a constructive way.

This book, although not a comprehensive overview of all types of stress (Neither is this article.), provides a new look at an area in which we have developed an abnormal fear of stress. It is a helpful handbook for changing the reader's mindset to achieve much better outcomes to our stressful situations. It is a timely wake up call to view emotional stress in a more hopeful, positive light.