



### **The Upside of Stress**

Why Stress Is Good for You, and How to Get Good at It  
**by Kelly McGonigal, Ph.D.**

Stress. Not surprisingly, the overwhelming majority of scientific and lay definitions for "stress" define it as a negative: If you live a stressful life, your productivity and well-being are at serious risk. Almost from the first day we enter the world, we are told of the negative consequences of stress. Self-help articles regularly promote the "X" ways in which you can reduce your stress, and thus find happiness and personal fulfillment. The Harvard School of Public Health tells us that 85 percent of respondents to its survey agree that stress has a negative impact on their health, family life, and work. While past surveys of the American Psychological Association found that the majority of people perceived a moderate level of stress as ideal, now they see that same moderate level of stress as unhealthy. But realistically, is a stressless life a meaningful development goal? Let's consider some of the observations from our Lab that when measured against this way of thinking, leave us quite perplexed:

- **Physiological Observations.** Our unique data capture system at CIMBA has provided us with a seemingly continuous stream of insights into the physiology of behavior. As many of you who have experienced the LIFE program know, heart rate and heart rate variability provide the foundational response measure as we move participants through a variety of specifically engineered emotional environments. Without knowledge of the specific context of the affect a particular environment was intended to create, an analyst viewing the data would have a very difficult time determining whether a participant's physiological reaction was to a positive or to a negative event based solely on heart rate and heart rate variability data.
- **Problems vs. Goals.** We have observed that an individual's receptivity to feedback is of particular importance to personal growth and development. Those individuals who see feedback as information toward the achievement of a goal (an opportunity to improve), as opposed to criticism highlighting a personal problem, are significantly more likely to achieve their developmental goal. Importantly, that likelihood increases further if the individual has a well-defined "bigger-than-self" goal (e.g., "How will you make a difference?" goal), to use the words of Prof. McGonigal.

- More "Stress" to Overcome "Stress." Consistent with the dictates of cognitive behavioral therapy, we have found that individuals are much more likely to achieve their personal development goals and then sustain the new behavior by progressively taking on increasing dosages of those experiences they had previously found to be emotionally challenging. That is, it is important to take on stress to overcome stress -- to build resilience.
- Social Connections. In a prior ABC, we reviewed Prof. Matt Lieberman's book, Social, and learned of the underlying anthropological and neuro-biological evidence that as humans we are "wired to be social." In observing this in practice, we have become firmly convinced that social connection is just as strong of a survival instinct as fighting or fleeing. In fact, this basic notion plays a central role in our "Social Brain Theory of Leadership" concept rationale that guides our development process.
- Social Connections in the Workplace. Our observations have drawn us to conclude that the most effective leaders best focus their team on cooperative efforts to overcome workplace challenges. The team typically finds this to be highly motivating -- not unlike athletes before an important game -- building trust, social ties, and causing people to come together to reach the common goal. Conversely, ineffective leaders inhibit trust and cause people to withdraw their cooperation, become selfish, and be more inclined to undermine the efforts of others.
- Stress is Fundamental to Growth and Development. In sharing personal experiences and listening to the reflections of our participants, we have come to the realization that virtually every important growth opportunity involves an encounter with unwanted, negative emotions and experiences. Those experiences inevitably end up shaping some of the most memorable and inspiring experiences of our lives.

Against these observations, we have found it disconcerting to view stress as being solely a negative emotional reaction; it must have evolved to be of greater use beyond fending off "lions, tigers, and bears." Otherwise, it is arguably little more than evolutionary baggage in today's world. It is for this reason that we were particularly interested in three books that served to focus our attention on the positive/productive side of stress: Paul J. Zak, The Moral Molecule: How Trust Works, for motivating us to more fully investigate the positive side of stress from a brain chemical perspective (Oxytocin vs. Cortisol); Kashdsan and Biswas-Diener, The Upside of your Dark Side, for providing valuable insights into the essential growth and development opportunities provided by emotions that make us uncomfortable; and, the central focus of this ABC, McGonigal's The Upside of Stress, which brought together much of the relevant research from a remarkably broad perspective.

Prof. McGonigal is very quick to dispel the notion that all stress is bad for you. In fact, she argues quite persuasively that the opposite may very well be true -- particularly if, like most of us, you are interested in a "meaningful, purposeful life." The book very effectively ties together many of the empirical observations we have witnessed within our personal development system.

During the initial years of our system development efforts we focused largely on managing stress. We placed our research attention on defining the fight or flight (or freeze or faun) stress response. We coached participants to become self-aware of the places, people, and situations that aroused them emotionally in unproductive and unhealthy ways. The practice of mindfulness was enlisted to assist both in this self-awareness process and in slowing down their brains in emotional situations, with the intent to provide the participant with sufficient "brain time" to choose a more productive, constructive, or healthy course of action. We encouraged leaders to create environments conducive to constructive work, focusing on building trust to enhance productivity and creativity. In reality, while stress was explicitly defined (and defined negatively), the opposite emotional environment was implicitly defined as "lacking in stress." Prof. McGonigal works to make this "lacking in stress" environment much more explicit. Most importantly, she suggests direct, express pathways to such environments based on research - pathways not based on the usual premise that by focusing on reducing or eliminating stress either in whole or in major part will somehow get you there. Often times, in fact, it is quite the opposite.

Consistent with our observations of individual physiologies, she points out that heart rate and heart rate variability data are, in fact, relatively indistinguishable in the cases of anxiety on one end of the spectrum and excitement on the other. Physiological reactions to both anxiety (or threats) and excitement (or rewards) are intended to prepare the body for action. Our hearts race, our breathing quickens, and our muscles tighten.

In the case of anxiety, our bodies additionally prepare us for "battle." Digestion and other non-emergency physical functions slow or stop. Energy reserves are increased. Adrenaline wakes up our senses, our pupils dilate to let in more light, and our hearing sharpens. Our bodies constrict blood vessels to minimize any blood loss, ramp up their inflammation response systems, and mobilize immune cells to prepare us to heal quickly in the advent of an injury. Our bodies are essentially anticipating physical harm in confronting a problem and are preparing us for survival. This side of stress is primarily driven by cortisol. Our emotions will likely include fear, anger, self-doubt, or shame. Prof. Zak refers to these fight or flight stresses as "hindrance stress." Not surprisingly, if as a leader you create this kind of environment, productivity, creativity, and well-being are going to take a hit.

In an "excitement" reaction, our bodies respond much like they do during physical exercise -- meeting a goal, activating our brain's reward circuitry. Our bodies feel safe, increasing blood flow (heart rate) to give us more energy (interestingly, often more energy than in a threat response) and our blood vessels stay relaxed. Professor Zak refers to these stressors as "challenge stress." While we may feel a little anxious, we will also feel excited, energized, enthusiastic, and confident.

We are in pursuit of our (development) goal -- not working to overcome a problem (often perceived by the brain as a threat to survival).

As we go deeper -- as Prof. McGonigal invites us to do -- we begin to see explicit ties to our Social Brain Theory of Leadership. A variety of scientists have placed labels on the emotional reaction opposite to fight-or-flight. For example, in the broader scientific literature it is been variously referred to as "rest-and-digest" or "feed-and-breed." Prof. McGonigal borrows another such phrase -- "tend-and-befriend" --- and precedes to make an interesting empirical case for its use here. In essence, she brings us back to the importance of social connection in managing and exploiting stress. Consistent with the arguments of Prof. Lieberman, Prof. McGonigal argues that a singular fight-or-flight response would have meant the death of our society - as danger loomed, a fight-or-flight reaction by itself would motivate us to merely pick up and run leaving our children behind and unprotected. But we don't. The tend-and-befriend response counters our basic fight-or-flight's basic survival instinct to avoid harm. It activates our prosocial instincts -- encouraging us to be more socially connected, enhancing our social cognition, dampening our fears, and making us more courageous. As Prof. Zak points out, challenged stress is highly-motivating, causing people to come together to reach their common goal. Oxytocin, not cortisol, is the brain's chemical of choice here, promoting trust and cooperation. It is assisted both by our brain's reward system, which releases the neurotransmitter dopamine to increase our motivation while simultaneously dampening our fears, and by our social awareness and self-regulatory systems, which, driven by the neurotransmitter serotonin, enhance our perception, intuition, and self-control. Prof. McGonigal provides a wide variety of social activities that in this sense significantly moderate our stress response -- many of which are surprising, counterintuitive, and supported by reliable research. Serving to both emphasize the upside of stress (she refers to them as "unexpected benefits") and the direct pathway to it through social connection, she summarizes them in this way:

*Stress is harmful, except when it's not. ... Stress increases the risk of health problems, except when people regularly give back to their communities. Stress increases the risk of dying, except when people have a sense of purpose. Stress increases the risk of depression, except when people see a benefit in their struggles. Stress is paralyzing, except when people perceive themselves as capable. Stress is debilitating, except when it helps you perform. Stress makes people selfish, except when it makes them altruistic.*

So how do we incorporate this new thinking into the way we look at personal growth and development? All three authors suggest we change the way we look at stress. Prof. McGonigal uses the phrase "changing our mindset" about stress. Again, understand that many of the development pathways suggested have at their foundation the importance of social connection -- something we adamantly believe in. Feeling time constrained? Become more generous with your

time. Struggling with self-doubt? Make an effort to help others. Feeling overwhelmed by your own stress? Find a way to connect with others, not escape from them. Feeling your heart pounding or your breast quickening? Realize that it is your body's way of giving you more energy, signaling to you that the event in front of you is important, giving you the opportunity to choose what you are going to do with that energy, and to encourage you to worry less about making the uncomfortable physical sensations go away through an unproductive habit.

More directly, understand the context driving your stress response; if you're reacting to an emotional sensation (a deceptive brain message) generated by your well-intentioned, self-protective System 1 brain circuitry, make an effort to choose to convert your anxiety to excitement. Take advantage of your brain's energy offering. Find the benefits in the situation you are encountering. What will you learn that will benefit your personal development more specifically, and your "bigger-than-self" goal more generally?

At CIMBA, we have a team currently developing an organizational intervention strategy focused on increasing a company's **SAFETY** (our mnemonic for **S**ecurity, **A**utonomy, **F**airness, **E**steem, **T**rust, and **Y**ou -- and encompassing the important concepts of certainty, autonomy, fairness, status, trust, and cognitive thinking biases). It is specifically focused on raising trust, social connection, social cognition, and cooperation -- creating an "oxytocin experience" with the intent to drive productivity, creativity, well-being, and thereby positively impact company engagement. The three books listed here along with the research that supports them are providing the driving force behind our efforts. Our initial experimentation has been highly rewarding, and is serving to motivate us to complete this important project as soon as possible. I am looking forward to sharing the results with you in future ABCs.

As a final note, let me encourage you to take advantage of the holiday season and experiment with some of the suggestions offered by Prof. McGonigal. For many of us, the holiday season can be quite challenging. The travel, the seemingly inevitable delays associated with that travel, the unpredictable weather, the often more unpredictable relatives, and other aspects of the holiday season can all too easily combine together and create a "hindrance stress" environment if we let them. I encourage you to take your holiday anxiety and convert it to excitement. Allow yourself the full pleasure of the benefits this joyous social season so willingly provides. Take the time to recognize those in your community who are less fortunate than you are. Build your New Year's resolutions around a "Bigger-than-Self" goal and focus that goal on connecting with your "ideal self."

Happy Holidays from your CIMBA Family!