Managing Stress

by Daniel Goleman Host, Leadership: A Master Class

A friend told me, "My worst time at work was just after a merger when people were disappearing daily, with lying memos about what had happened." She added, "Nobody could focus on their work." These days what was just an episode for her has become a chronic reality in too many businesses.

Ups and downs of the economy aside, organizational life is rife with toxic moments – impossible directives from headquarters, unreasonable people in positions of power, abrasive workmates, and on and on. So, how can we manage such constant stress, or outright distress? One strategy for managing our reactions to hassles and upsets takes advantage of another dynamic between the prefrontal area and the amygdala circuitry.

Richard Davidson, who directs the Laboratory for Affective Neuroscience at the University of Wisconsin, has done seminal research on the left versus right prefrontal areas. His research group has found that when we're in the grip of a hijack or under the sway of distressing emotions, there are relatively high levels of activity in the right prefrontal cortex. But when we're feeling great – enthused, energized, like we could take on anything – the left prefrontal area lights up.

The Davidson group found that each of us has a left-to-right ratio of prefrontal activity (measured when we're just resting, not doing anything in particular) that accurately predicts our typical mood range day to day. This left-to-right ratio gauges our emotional set point. People who have more activity on the left than right are more likely to have more positive emotions, and the more positive their emotions day to day. Those with more activity on the right are prone to having more negative emotions.

There is a "Bell Curve" for this ratio, like the well-known upside-down U curve for IQ. Most of us are in the middle – we have good and bad days. Some people are at the extreme right – they may be clinically depressed or chronically anxious. In contrast, those people at the extreme left on the Bell Curve bounce back from setbacks with extraordinary rapidity.

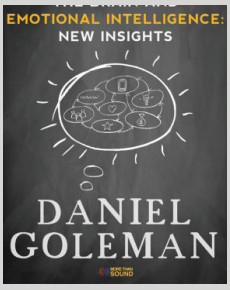
Davidson has also done research on what he calls "emotional styles" – which are really brain styles. One brain style tracks how readily we become upset: where we are on the spectrum from a hair-trigger amygdala – people who easily become upset, frustrated or angered – versus people who are unflappable.

A second style looks at how quickly we recover from our distress. Some people recover quickly once they get upset, while others are very slow. At the extreme of slowness to recover are people who continually ruminate or worry about things – in effect, who suffer from ongoing low-grade amygdala hijacks. Chronic worry keeps the amygdala primed, so you remain in a distress state as long as you ruminate.

Given the many realistic stresses we face, those first two styles – being unflappable and capable of quick recovery – are the most effective in navigating the troubles of the world of work.

The third style assesses a person's depth of feeling. Some people experience their feelings quite intensely, some people quite shallowly. Those who have stronger feelings may be better able to authentically communicate them more powerfully – to move people.

There's another piece of suggestive data about the left-right ratio. Barbara Fredrickson at the University of North Carolina finds that people who flourish in life – who have rich rela-



Daniel Goleman lectures frequently to business audiences, professional groups and on college campuses. A psychologist who for many years reported on the brain and behavioral sciences for *The New York Times,* Dr. Goleman previously was a visiting faculty member at Harvard. Dr. Goleman's most recent book *Leadership: The Power of Emotional Intelligence – Selected Writings* (www.MoreThanSound.net) is a collection of his key work on the topic from his books and his articles in the Harvard Business Review. His book *Emotional Intelligence* argued that human competencies like self- awareness, self-regulation, and empathy add value to cognitive abilities in many domains of life. The book was on The New York Times bestseller list for a year-and-a-half, and has since been translated into nearly 40 languages. He was a co-founder of the Collaborative for Academic, Social and Emotional Learning at the Yale University Child Studies Center. He's currently co-chairman of The Consortium for Research on Emotional Intelligence in Organizations, based in the Graduate School of Applied and Professional Psychology at Rutgers University. He is also a member of the board of directors of the Mind & Life Institute. Dr. Goleman has received many journalistic awards for his writing, including two nominations for the Pulitzer Prize for his articles in the Times.

tionships, rewarding work, who feel that their life is meaningful – have at least three positive emotional events for every negative one. A similar positive-to- negative ratio in emotions has also been documented in top teams, where it's five-to-one; the ratio for flourishing seems to operate at the collective level too.

When we're pitched into an amygdala hijack, whether intense or low level but ongoing, we're in sympathetic nervous system arousal. As a chronic condition that's not a good state. While we're hijacked, the alarm circuits trigger the fight-flight-or-freeze response that pumps stress hormones into the body with a range of negative results, such as lowering the effectiveness of our immune response. The opposite state, parasympathetic arousal, occurs when we're relaxed. Biologically and neurologically this is the mode of restoration and recovery, and it is associated with left prefrontal arousal.

If you want to cultivate greater strength of activity in the left prefrontal areas that generate positive emotions, you can try a few strategies. One is to take regular time off from a hectic, hassled routine to rest and restore. Schedule time to "do nothing": walk your dog, take a long shower, whatever allows you to let go of leaning forward into the next thing in your on-the-go state.

Another is called mindfulness; Daniel Siegel has an elegant analysis of the brain areas this involves. In the most popular form of mindfulness you cultivate an even-hovering presence to your experience in the moment, an awareness that is non-judgmental and non-reactive to whatever thoughts or feelings arise in the mind. It's a very effective method for decompressing and getting into a relaxed and balanced state.

"Mindfulness-Based Stress Reduction," the method Jon Kabat-Zinn developed, is widely used in medical settings to help people manage chronic symptoms, because it alleviates the emotional suffering that usually attends them, and so improves patients' quality of life.

Richard Davidson teamed up with Kabat-Zinn, then at the University of Massachusetts Medical Center, to help people at work learn how to get into a relaxed mode via mindfulness. Kabat-Zinn taught mindfulness to people working in a high-stress setting, a biotech start-up where they were going all-out, 24/7. He taught them an eight- week program where they practiced mindfulness an average of 30 minutes a day.

Davidson did brain studies before and after the mindfulness program. Before, most people's emotional set point was tipped to the right, indicating they were hassled. After eight weeks of mindfulness, they had begun to tip back to the left. And their own reports made clear that with this shift toward the more positive zone of emotions their enthusiasm, energy, and joy in their work surfaced.

Mindfulness seems a good choice for strengthening the dominance of critical zones in the prefrontal cortex. Davidson tells me – this is good news – that the biggest bang for your buck from mindfulness in terms of shifting the brain's emotional set point comes at the beginning of the practice. You don't have to wait for years to feel the improvement – though you probably need to continue practicing daily to maintain the shift.

Along with this shift toward a more positive mood range comes another neural tool for managing stress: a faster recovery time. Traditionally people end their daily mindfulness session with a period of loving thoughts toward other people – the practice of lovingkindness. This intentional generation of a positive mood enhances "vagal nerve tone," the body's ability to mobilize to meet a challenge and then to recover quickly. The vagus nerve regulates the heartbeat and other organ functions, and plays a major role in calming down the body when we get distressed. Better vagal tone enhances our ability to arouse ourselves to meet a challenge and then to cool down rather than staying in high gear.

Having good vagal tone helps us not just recover from stress, but also sleep better and guard against the negative health impacts of chronic stress in life. The key to building better vagal tone is to find a method we enjoy, and practice it daily – like a workout for the vagus nerve. These methods include everything from simply remembering to count slowly to ten when you are starting to get ticked off at someone, to systematic muscle relaxation, to meditation.

Sometimes when I talk about meditation – a topic I've been writing about for decades – I'm asked if we might get the same effects through psychopharmacology. I prefer to use the mind to intervene in brain states; it's a natural way to manage our brain. There are many kinds of meditation, each using a different mental strategy: concentration, mindfulness, and visualization, to name a few.

Each meditation method has specific impacts on our mental states. For example, visualization activates centers in the spatial visual cortex, while concentration involves the attention circuitry in the prefrontal cortex but not the visual area. A new scientific field, "contemplative neuroscience," has begun mapping exactly how meditation A versus meditation B engages the brain, which brain centers it activates, and what the specific benefits might be. ■