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Preventing a Stress Meltdown amidst Economic Chaos

By Bruce Cryer

It sounds like a bad dream. Financial meltdown. Global markets in chaos. Government bails out banks and other financial institutions in worst crisis since the depression. Citizens watch as personal wealth plummets.

What a roller coaster it's been emotionally. Certainly there have been a few positive trends but lots of negatives that could mean serious consequences down the road. The questions start racing into a blur. What's going to happen next? Is it time to get out? Have I really hit the bottom? Will I be able to recover if the numbers don't improve quickly?

No we're not just talking about the economy; we're talking about an alarming visit with your doctor. Hopefully this hasn't happened yet. But it probably has happened to someone you know, maybe even someone you work with. It's time to face a stark reality of life today: stress can take its toll on our energy, our well-being, our decision-making, the quality of our relationships, even our financial health.

Our organization has been researching the stress-performance-health relationship since 1991. We've uncovered some startling information about how directly the stress of work pressure, particularly high stakes decisions traders face many times a day, affects us. Fortunately the news isn't all gloomy.
First some context. The Wall Street Journal recently reported on what it called a "binge-purge" approach to stress management.

> **"**…millions of Americans are managing their stress in precisely the wrong way. They compartmentalize by stressing out all day – and then push off recovery to isolated blocks of time like evening yoga classes and weekend getaways."

Many of us binge for weeks and months on unhealthy stress levels, then expect that a "purge" can cure us. Unfortunately, while we wait for the 'cure' – the week-long vacation, a weekend at the spa, or even the massage certificate your family gave you as a birthday gift -- our performance and our health suffer. To understand why, and what *is* the right approach to sustaining peak performance during stressful times, let's take a few quick lessons in human physiology.

Fact #1: The human body doesn't care if it's a BIG stress or a little one.

Big or little, stress affects the body in predictable ways. A typical stress reaction – which most of us experience dozens of times each day -- begins a cascade of 1400 biochemical events in your body. If these reactions are left unchecked we age prematurely, our cognitive function is impaired, our energy is drained, and stress has robbed us of effectiveness and clarity. Ever noticed how it can take three or four days of your vacation before you finally feel relaxed? This is because of the build-up of stress chemicals that have been doing their silent damage without our approval. Research indicates that the relentless impact of minor, stressful events may be more damaging to health than one big stressor. In addition**,** many people don't even seem to notice their stress. Or they have become so adapted to the daily pressures, irritations and annoyances of life, it starts to feel normal. Yet the small stresses accumulate quickly and we may not realize how much they impair performance and health until the damage has been done.

Fact #2: Understanding basic physiology brings new awareness you can use to reduce stress.

A remarkable system that your brain uses to manage roughly 90% of your body's processes is called the Autonomic Nervous System (ANS). One of the essential tasks the ANS performs is to signal the heart to either speed up or slow down to accommodate changing demands: it's time to run, or it's time to sleep. The ANS has two complementary branches and your health and ability to think clearly and make good decisions are best when these two systems are synchronized and in balance. However when you're experiencing stressful emotions like anxiety, frustration, or fear, *whether you're conscious of them or not*, higher brain processes become seriously compromised. Brain researchers call this phenomenon *cortical inhibition*, meaning the smart part of your brain can't function at its best. For traders, cortical inhibition can be disastrous -- resulting in poor decisions, the inability to even make a decision and execute the trade on time, loss of focus on the big picture, and more.

In The Psychophysiology of Real-Time Financial Risk Processing[1], MIT Sloan School of Management's **Andrew Lo** and coauthor **Dmitry Repin** investigated the role that emotion plays in the high-stakes and high-pressure world of professional securities traders, individuals who, by their training and inclination, are presumably among the most rational decision-makers in the economy.

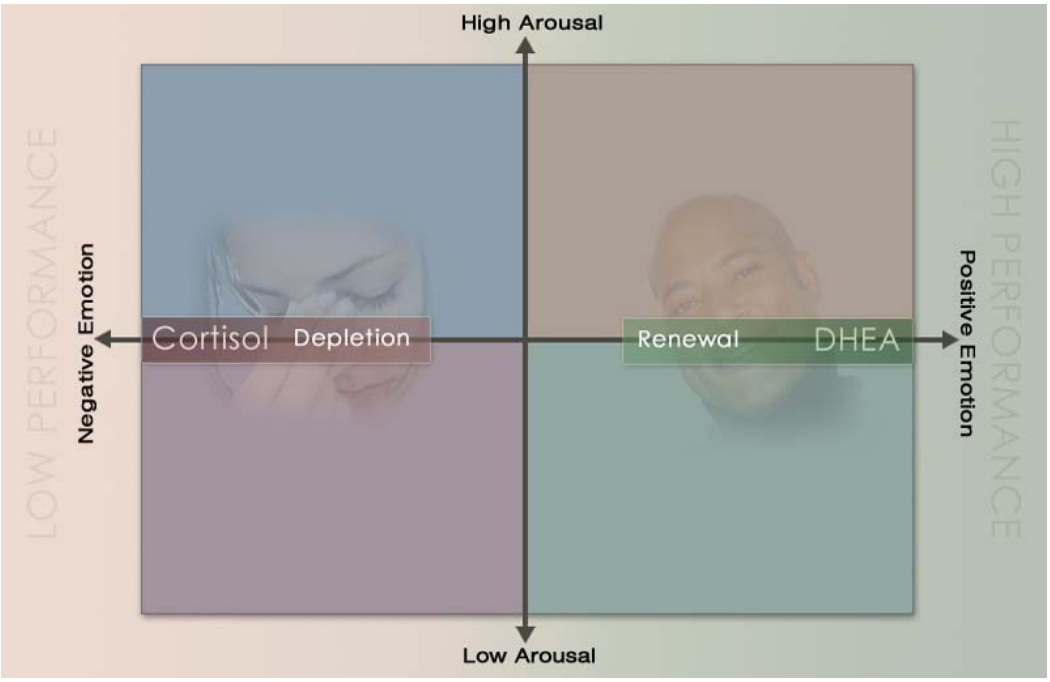
> [Authors] Lo and Repin strongly suggest that emotional responses are a significant factor in the real-time processing of financial risks, even among the most rational investors in the economy. These findings support other studies that point to the significance of cognitive-emotional interactions and the genesis of what, for the lack of a more precise term, we call "intuition." Experts' judgments, the researchers maintain, are often based on this subconscious process of intuition, and not necessarily purely on explicit analytical processing.
>
> In fact, the data suggest that the most successful traders often seem to function without the ability (or need) to articulate the reasoning behind their decision-making. A reasonable conjecture, say Lo and Repin, is that emotional mechanisms are at least partly responsible for the ability to form intuitive judgments and for those judgments to be incorporated into rational decision-making. Such a conclusion, they add, may not be as puzzling as it seems.
>
> … emotion is a significant determinant of the evolutionary fitness of financial traders. In short, since unsuccessful traders are generally "eliminated" from the population after a certain level of losses, the authors conjecture that the presence of emotion in the financial community is, in a Darwinian sense, desirable.

In a follow up paper, Fear and Greed in Financial Markets: A Clinical Study of Day-Traders[2], Lo, Repin, and Brett N. Steenbarger "find that subjects whose emotional reaction to monetary gains and losses was more intense on both the positive and negative side exhibited significantly worse trading performance."

The key is having the most productive emotions possible. Let's start by looking at two primary hormones.

Fact #3: Choosing the right hormones maximizes performance.

Two hormones in the human body play a central role in performance, energy levels and overall well being: cortisol and DHEA. Cortisol is called the 'stress hormone' because it is secreted in large amounts when we are under stress. Cortisol plays a positive role in overall health, but when we produce more than we need, it creates problems. Some researchers believe a majority of the working population overproduces cortisol daily, with dire health consequences.



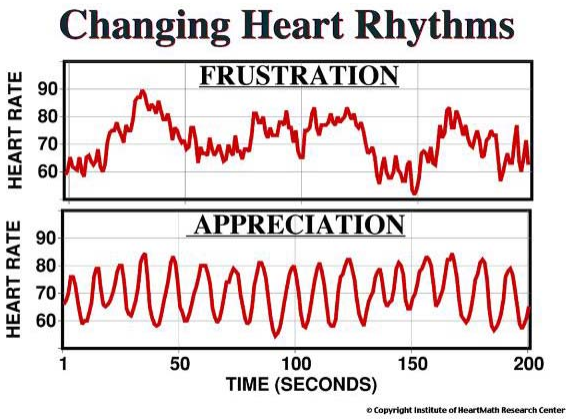
DHEA, its cousin, is often called the 'the anti-aging' or 'vitality hormone' because it's plentiful when we're young, and when we're producing large quantities of it we feel energized. DHEA and cortisol are made from the same building block hormone. Consequently, if your perceptions are stressful, that tells your body you need more cortisol, so more cortisol is produced -- at the expense of DHEA. That's okay in the short term. However, chronically high levels of cortisol combined with low levels of DHEA are prevalent in health conditions ranging from obesity, diabetes, chronic fatigue syndrome, migraines and fibromyalgia to osteoporosis, high cholesterol and other chronic conditions. It is also responsible for premature aging. In routinely stressful jobs, the rate of aging can be extreme.

Chronic emotional stress = excess cortisol = accelerated aging.

Research has now established that stressful emotions fuel cortisol production; while positive emotions fuel healthy DHEA levels. Simply learning to relax, or having a "relaxing" massage or spa weekend, may briefly slow down the nervous system but will not necessarily re-balance the DHEA/cortisol levels, which have been imbalanced as a result of the constant low-grade anxiety that many traders experience throughout the year.

Fact #4: Your brain and heart work best when there is synchronization between all systems. This is called *coherence*.

Researchers throughout the '90s established that with every beat of the heart intricate messages are being sent to the entire body. This research has shown a critical link between the heart and emotions and demonstrates how the heart responds to emotional and mental reactions (see graphic below). As people experience emotional reactions like frustration, irritation, anxiety, or anger, heart rhythms become chaotic, which interferes with the communication between the heart and brain. Blood vessels constrict, blood pressure rises, and the immune system is weakened. This consistent imbalance can put a strain on the heart and other organs, and eventually leads to serious health problems.



However you can learn to quickly bring your heart rhythms and brain into balance. The key is shifting the *emotion* to a positive one: remembering a favorite time on the beach, the fun of horsing around with your kids, a favorite activity like skiing or cycling, even the fun of a big win. Achieving coherence is simpler than you think,

and can have more dramatic benefits than you can imagine. An effect of becoming coherent is what researchers call *cortical facilitation.* Decision-making is quicker and more sure, emotional balance is easier to sustain, and physical coordination is enhanced (athletes love this).

A new software/hardware system called the emWave PC® allows you to view your heart activity in real time, and includes easy-to-follow techniques for bringing synchronization and coherence to your heart, brain, and nervous system in moments. It's remarkable how differently your heart is functioning depending on whether you're in a state of frustration, anger or tension, compared to when you're in "the zone". Many traders around the world now use the system to get into the zone *before making a trade*. Traders report increased energy, more clarity and more effective decision-making, all without sacrificing speed or quick response. Fortune 100 companies like Cisco, Prudential Financial, HSBC, Shell, Hewlett Packard, Liz Claiborne, Unilever and Sony are paying attention, bringing in the programs to improve performance and reduce health-related costs. Elite golfers like Vijay Singh, the UK's Nick Dougherty, and 2006 European Ryder Cup Captain Ian Woosnam are all believers. The emWave PC's offspring is a cute handheld device called emWave Personal Stress Reliever. It's about the size of a cellphone and helps you get in the zone fast.

Lightweight and portable, even some on the street have caught on.

> "The emWave is a real tool for stress management: a portable device that gives an unbiased assessment of your stress level in various situations, all in real time. It's like an iPod into the soul."
> — Jonathan Blum, TheStreet.com

Emotional Management Maximizes Traders' Health and Performance
Becoming *coherent* by shifting the emotion you're in creates an attitude shift, resulting in greater perceptual and mental clarity. Athletes do it all the time (think Tiger Woods).

Here's a simple exercise: Consider yesterday's events. Make a list of activities, situations, etc. and describe your moods or emotions during each activity. Now place those emotions on the four quadrant grid above. We've listed a few examples. High-energy emotion like enthusiasm? Place it in one of the upper quadrants. Low-energy emotion like anxiety? Place it in one of the lower quadrants. What emerges is a snap shot of the emotional landscape of your day. The right side is the peak performance zone. The left is your stress zone. How long did you spend in each quadrant? The most successful traders and athletes spend at least 80% of the time in the two right quadrants of the "peak performance zone."

You can be the master of your physiology – and your emotions -- to maximize your success. Nearly everyone has more stress today than is healthy or productive. The key is coherence.

For more information see http://heartmath.com, or call 1-800-450-9111 or 831-338-8700. For information on the emWave products, see http://emwave.com and http://emwavepc.com.

Bruce Cryer is CEO of HeartMath LLC, an internationally recognized training and technology firm specializing in innovative approaches to reducing stress and improving performance. He is also author of the Harvard Business Review article, "Pull the Plug on Stress" (July 2003), and is co-author of "From Chaos to Coherence: The Power to Change Performance".

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