



A New Lease on Growth and Development (at Any Age!) with HIIT

Mitchell Milch, LCSW

How well do you manage stress? You experience it, don't you?

Everything from wear and tear on our joints, mental efficiency, energy conservation and utilization, immunity to life-threatening illnesses, creative intelligence, and the slowing of the aging process is attributable to how well we manage stress.

Let me put it another way. All of those variables I mentioned that determine health and well-being depend on our ability to modulate stress—and consciously harness it for adaptive purposes. Doing so can allow us to evolve to higher and higher levels of self-organization.

Still another way to say this is this: We can learn to consciously mediate growth through unconscious adaptive mechanisms that permit us to master more and more complex challenges. In a world of rapid technological change, this is very good news.

Good Stress and Bad Stress

There is good cholesterol, just like there is bad cholesterol. Likewise, there is good suffering or struggling to transcend anxieties over venturing beyond the realms of the familiar and comfortable, just as there is bad suffering or counterproductive struggle. And in keeping with this theme, there is good stress as opposed to bad stress.

A variation of a theme of the New Testament states that optimal stress or productive struggle produces endurance, which in turn produces character, which results in the cultivation of hope. The hope we have cultivated can then be fine-tuned, strengthened, and mobilized to create the resources to generate support for our needs. High achievers who showcase growth mindsets may have experienced success with this formula

With this blog installment, I mindfully reflect back on my experiences of a training tool runners have employed for generations in their quests to beat the clock: high-intensity interval training. Little did I realize that at age 50, worn out mentally, physically, and spiritually from pounding the pavement mile

after mile, making high intensity interval training the staple of my exercise regimen was a route for me to discover a fountain of youthful energy. Mind you, I deliberately did not say re-discover, as HIIT permitted me to harness and use energy efficiently in a manner that was unprecedented for me at any age.

Just wait. My story gets even better. It was not until I took up HIIT, in the form of 100-200 yard sprints sandwiched between recovery jogs of equal length, 4-5 times per week, that my bucket list of life achievements was actualized one by one. I liken this testimonial to saying I bought a revolutionary wrinkle-free moisturizer that attracted the woman of my dreams and serendipitously found out it cured some pernicious chronic illness as well.

Now, in my 64th year I can run like the wind, though I was not born with any genes for speed. I will also share with you that, since committing myself to a progressive shift to higher and higher quality sprints, now conducted 5 times per week, I am nearly sniffle-free year round, have not had any flu-like symptoms in over a decade, sleep 6 hours a night, and live a productive and creative life beyond the scope of my psychotherapy practice. My motto regarding sleep is that, beyond the minimum I require to rest and recover from my work days, it is overrated.

HIIT as a Tool for Personal Growth

Why is HIIT such an effective growth tool? Anyone who has ever dealt with chronic anxieties, depression, and/or is a self-admitted trauma survivor (I have all three hands raised), probably knows that chronic suboptimal stress interferes with our ability to take charge in life and maximize our health and welfare. If you liken the human organism to an electronic device, you might say under conditions of sub-optimal stress we are like laptops that:

1. Can't maintain a wireless connections to the internet
2. Have a faulty power source with a short battery life
3. Have programs that freeze
4. Have an operating system that keeps rebooting as if possessed by some alien spirit with a sadistic sense of humor.

Suboptimal stress, then (whether suboptimal is too much or too little), lies at the root of processes of deterioration, fragmentation, and morbidity. HIIT serves as a training ground where we can learn the (priceless, in my opinion) lessons of marrying form and function to operate at our best as mediated by optimal stress.

Optimal stress is a level of arousal for our nervous systems that can lead to the highest quality of mind-body coordination. It is also a state of mind consistent with the regulation of a biochemical environment

that can foster the growth and development of everything from oxygen consumption, delivery, and processing mechanisms to the growth of the neural integrative circuits.

My belief is that those of us who struggle to master life's dynamic challenges to grow and adapt tend to fail because we get stuck in non-adaptive, preprogrammed habits and routines we find very difficult to empower ourselves to change. Through HIIT, we can learn to train our autonomic nervous system to identify what is optimal stress for a given task, rise to the challenges of mastering these tasks, and quickly return to a steady state. Doing so gives our systems of maintenance, repair, and growth the opportunity to rest and recover, catching their collective breath and activating adaptive mechanisms to perform these tasks more efficiently—with less wear and tear the next time around. Optimal stress is a level of arousal for our nervous systems that can lead to the highest quality of mind-body coordination. It is also a state of mind consistent with the regulation of a biochemical environment that can foster the growth and development of everything from oxygen consumption, delivery, and processing mechanisms to the growth of the neural integrative circuits. When our minds move toward “quarterbacking” our systems—think Aaron Rodgers and Tom Brady on the football field—hope springs eternal for us to operate at our very best.

Consider this idea articulated by Malcolm Gladwell in his book *Outliers*: HIIT is a model best practice for achieving mastery. For those who haven't read Gladwell's entertaining and enlightening book, in it he shares how the conclusion of his research points to one riveting commonality among society's highest achievers. They spend thousands of hours in trial and error learning so that they are able to use their intuition to stretch their acquired wisdom to great feats of creative and improvisational genius. What this means is that they mindfully connect and disconnect over and over again. Cycles of intense effort are followed by periods of mindless rest and repair that catalyze adaptive growth. These folks are the antithesis of multitasking, which has become something widely raved about in today's culture, and it is their laser-like attentive immersion in their disciplines that produces magic.

Ruptures, as in muscle strains, bone and muscle loss, or joint inflammation, are symptoms of suboptimal stress that do not tend to lead to repair or higher levels of functional adaptations. The beauty of HIIT is that the intensity of stress over a short period of time strikes a precipitous decline in energy stores. This decline triggers innately intelligent and unconscious mechanisms that respond to such biophysiological crises by becoming more efficient users of fuel.

As a user of HIIT I strike an exquisite balance between intense exercise and rest and recovery, and the speed of the alternation permits me multiple opportunities for learning and growth during a workout that is very brief in comparison to traditional aerobic workouts. What I have been able to do with so much quality rehearsal time is marry my biomechanics to my goal of running faster, and do

so in a manner that is less stressful to my joints and muscles, especially when compared to my former routine of jogging while mindlessly checking out surrounding activity and letting my mind wander.

In part 2 of this installment I will explore how I learned to apply the principle of optimal stress to sprinting intervals and how this yielded transfer effects to important projects in other spheres of my life.