

Hello all,

Welcome to *Alternativz* Volume 2, Issue 8, ***When The Heart Fails To Follow***. This article chronicles a recent personal experience involving simultaneous emotions of grief, fear, trepidation, and dread, and the psychophysiological impact it had on my mind, breathing and heartbeat. While I recognize that colleagues using feedback have probably witnessed this effect with clients that have experienced trauma, I've personally never experienced it before, nor have I had to find a way to cope, until this event. The short story is that I'd been away for a family funeral to return home to a complicated crisis involving multiple dangers to others and myself.



Figure 1: My HRV, what it was, and what it is. The red line is my approximate average heart rate at the time I assessed it during event. My HRV was also erratic.

It's the first time I've personally experienced such a combined 1-2 punch and its consequences, both mental and physical. Consequently, its the first time I've had the need or opportunity to work through it. Having done so, I discovered something very important about breathing and biofeedback, something that I knew, have written about, have taught others, and have used with my own clientele, but have never had to employ myself "in crisis". I hope therapist colleagues will consider it carefully, especially if you are aiding clients who have experienced trauma.

What happened to me is that my body/mind moved into a state of alarm that would not abate, even if I breathed "coherently", which I aspire to do all the time, and even if I relaxed consciously in combination, again something I aspire to do all the time (consistent with the Coherent Breathing protocol described in The New Science Of Breath ~10 years ago). But this time, regardless of how I breathed and tried to let go, it wouldn't happen. My average heart rate stayed around 95 beats per minute. Over this few day period I assessed it with a pulse oximeter and on average it wasn't budging. Inside, I felt a strange sensation that I can only describe as "constant alarm"; I recognize that I am fortunate that this is my first such experience.

This alarm went on for 2 days and nights, my average heart rate remaining elevated even when I attempted sleep, which of course did not happen with any success. By the 3rd night, after lying sleepless in bed for a few hours, feeling my pulse now and then, I pulled out my laptop, hooked myself up to Valsalva Wave Pro and began working with my heart rate, still averaging in the 90s (normally 72) with a few beats of variability (normally ~25+) which was largely incoherent ("coherence" all over the map) and not complying with my breathing. I could see the effect of my breathing but my heart was not phase locking to it, as it always has. Its the first time I've witnessed these two systems operating with this degree of independence in myself when observed via monitoring. I didn't know they could.

I began the practice of observing my heart rate, exhaling at the peaks, and simultaneously closing my eyes gently. When exhalation was complete, I would begin inhaling and opening my eyes gently. Within a few cycles, my heart rate began to slow coincident with exhalation. Within a few minutes it was averaging 80 BPM and my HRV had increased to 10 beats or so.

(I'm sorry I didn't have the presence of mind to record the episode while it was happening. The red line in Figure 1 depicts my average heart rate at the time. My heart rate was also quite erratic.) I continued doing this for about 10 minutes at about which time I dozed off. I later pushed the laptop aside, rolled over and went to sleep. That night I got maybe 4 hours of sleep for the first time in 72 hours.

Realizing the next morning what had happened, I was back to practicing Coherent Breathing with biofeedback everyday, where over time, I had drifted away from being very deliberate about practicing with biofeedback as opposed to relying on my heart rhythm to follow my breathing rhythm (which it normally does). Within 24 hours, my HRV was back to normal and I was feeling like there was a buffer between me and the crisis. I was now able to consider matters more objectively, including looking at myself more objectively relative to it, like I'd re-established a reserve coping capacity that I hadn't realized I'd lost. Maybe the impact the situation had on me is because I'd lost reserve – I can't be sure. While very painful and something I hope not to ever have to experience again, as life scientist the "event" has renewed my interest in exactly what is going on here. (Like many things, to comprehend the significance one must experience it for themselves.)

Now, the [Coherent Breathing protocol](#) describes 2 methods of practicing: a) "with heart rate monitoring", and b) "without heart rate monitoring". With heart rate monitoring, one synchronizes their breathing with their own heart rate. Without heart rate monitoring, one relies on the heart rate synchronizing with their breathing. What I learned via this crisis is that the two are not equal, which I knew but have not understood personally. Previously, I've described the benefits of breathing coherently with feedback as "speeding comprehension" and "perfecting practice". However, I think I've seen a profound effect of biofeedback vs. breathing alone, one that I can't explain, nor for which I've heard an explanation. I'm musing over these hypotheses, alone or in combination:

- 1) Was there cause and effect at all?,
- 2) Knowing precisely when the heart rate is beginning to slow down and consciously synchronizing with this moment is *profoundly* important to the elicitation of parasympathetic emphasis,
- 3) Employing the eyes visually (visual cortex involvement) in combination with breathing is potent. (We already know that allowing the eyes to open and close gently coincident with inhalation and exhalation is highly effective),
- 4) The very act of observation influences the outcome, closing the loop between the mind and the body, the conscious and the subconscious, notions that have been around since biofeedback's beginning.

I look forward to exploring these questions and welcome thoughts you might have.
Thank you for your interest and consideration,

Stephen Elliott, President, COHERENCE

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