



Hello all,

Welcome to Coherent Breathing®, Volume 3, Issue 3:
Is Internal State A 6th Sense? I hope you enjoyed Volume 3,
Issue 2: *Neurasthenia In The 21st Century?*

It's funny how we learn that we humans have 5 senses: sight, sound, smell, taste, & touch. I know I was taught this in kindergarten. But, there is a problem with this age old archetype, this being that it applies only to our interaction with the “external world”, with no accounting for our internal senses or internal state, our internal state having tremendous influence on the course of our actions and our lives in the external world – that beyond the surface of our skin.

A sixth, seventh, eighth and even a 9th sense have been put forward, these being: #6 vestibular (balance), #7 proprioception (sense of movement and bodily location in space and time), #8 the sense of direction, and #9 the sense of time itself.

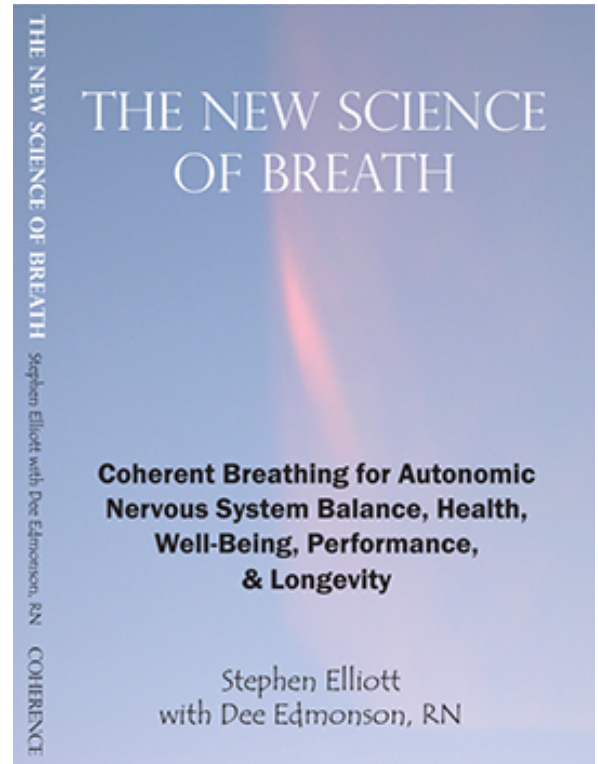
I propose to add a 10th, this being our sense of our *Internal State (IS)*, something we have the ability to assess and interact with via our consciousness. IS is more a category of senses vs. a single sense.

My last 2 articles have focused on the importance of knowing what is going on inside the body/mind, and learning to “manage” it. But what is our Internal State and where and how do we look for it, perceive it? Meditation and other “internal arts” train our bodies and minds to feel what is going on *inside* the body, and even detect what is going on outside of our skin proper.

An easy way to experience the “IS” is to close the eyes and remain perfectly still, with the exception of breathing. With this, here are a few things to assess: 1) What is our state of mind? 2) Similarly, what is our state of body? 3) Are we comfortable? 4) Is our posture upright? 5) Are we in a rush? 6) Are we in pain, pleasure? 7) Are we tired, sleepy, rested, awake? 8) Are we thirsty? 9) Are we hungry? As breathing is central to this experience, #10) What is the quality of our breathing, it's pace, depth, rhythmicity? 11) Can we feel blood flow when we breathe (baroreception)? 12) Can we feel the bioelectricity our body is producing (qi)? This is the flow of electrons and the production of ATP, going on in every cell.

These are all signals relating to “internal condition”. Matters over which we have both conscious and sub-conscious awareness, and that allow and afford our conscious participation. Individually, each is not a “sense” per se, but an awareness – together, “awarenesses” that we experience, and in which we can actively participate. In this regard, they are not unlike “bridges”, *physical zones of the body over which we have been aware and explicit “dual” control, autonomic and somatic. While the Six Bridges are physical zones, we feel them internally, we can go there with our mind's eye, assess their state, and modify that state with intention and purpose. In reality, bridges are an aspect of our Internal State (IS). These awarenesses are central nervous system (CNS) feedback relating to our physiology. Together, they are known as “interoception”, credited with the feedback that facilitates homeostasis. They are not to be confused with emotions.*

Like bridges they are functions in which we can actively participate/or not, *where participation is a requirement of internal state management.* Internal state management is necessary to any serious endeavor, as serious endeavors *require* varying commitment to self-governing, the application of consciousness to our own state – this facilitating a “closed-loop” between our conscious mind and the state of our central nervous system, and consequently the entirety of our body. This applies to top-performing people in all walks of life, they have strong self-governance. To excel at anything requires it.



The New Science Of Breath hard cover
Summer 2024



Certainly, we're all busy assessing these and other awarenesses all the time, moment by moment, sometimes actively participating and sometimes not. Of course, this is the essential beauty of instrumentation and biofeedback, it offers us an objective perspective on what is going on inside, such that we can modify our internal state via participation. With some practice, we no longer need the instrumentation because we've learned how to do it, and what that experience is like. It is not unlike learning how to drive a car, where we have to get used to the instrument panel and driver controls. Of course, decisions and course corrections we make regarding these awarenesses is where the rubber meets the road, where resonant breathing is central to all of it.

I posit that one of the things that Coherent Breathing does for us is to facilitate a *coherent internal state*, that while the CNS presents all of these internal awarenesses all the time, and potentially, all at the same time, they are easily discerned, as opposed to being noisy and chaotic. When we have clear awareness of ourselves, then we can live our lives with intention, and purpose, optimal self-governance yielding the opportunity to reach new heights, this as opposed to a helter-skelter existence. Here again, Elmer Green's expression: "We are the ones we have been waiting for." is relevant.

The New Science Of Breath (2005) is being published in hardback this summer, 2024. The tagline on the cover has been revised to: "Coherent Breathing for Autonomic Nervous System Balance, Health, Well-being, Performance, & Longevity", where based on my personal experience of 20 years and that of others, "performance" and "longevity" have been added. One may have heard the expression recently: "80 is the new 50." I consider this to be true when one embraces the available knowledge and commits to practice.

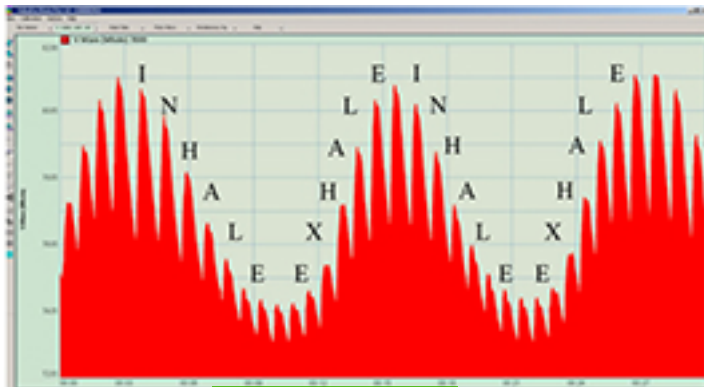


Figure 2: The Valsalva Wave generated by Coherent Breathing

Why *performance* and *longevity* are outcomes is because the practice of Coherent Breathing facilitates the circulation of blood, most notably to the brain, the circulation of blood promoting the circulation of fluid into and out of the trillions of cells in the body. The Valsalva Wave is the phenomenon, which appears to me to have the explicit purpose of promoting fluid propagation in the extracellular and intracellular environment, feeding the eukaryotic cells of the body with what they and their attendant mitochondria require. In the book *The Vital Question*, Nick Lane posits that mitochondria have a respiratory cycle.

I wonder if the mitochondrial respiratory cycle is in synchrony with the Valsalva Wave, washing the interior of the cells with every breath and every heartbeat, where keeping the mitochondria vital is a requirement for life and therefore for longevity. Mitochondrial death is the ultimate cause of all death – the collapse in energy production, energy (electricity) being the vital force that holds the body intact. (Mitochondrial biogenesis is the process by which mitochondria within a cell are replicated, increasing their number, and with number, the amount of ATP they can produce, ATP being the fuel that in-turn powers eukaryotic cells keeping them alive.)

I have come to credit all of Coherent Breathing's advantages, physical and mental, to the generation of the Valsalva Wave, its contribution to the circulation of blood, the differential pressure/flow affects that it has at the boundary of the pervasive capillary membrane whereby fluid is propagated from the blood stream into and out of the extra-cellular environment, and ultimately into and out of cells, the result being a vital saline milieu interieur inclusive of the macroscopic down to the microscopic. As of 2005, we had not seen the Valsalva Wave as we see it in Figure 2, which was captured using Valsalva Wave Pro in 2007.

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