Havening: Creating Safety & Lasting Change

Havening comes from the word *haven*, meaning to create a *safe space* which is the exactly what this neuroscience-based somatic modality does! Science shows it fosters enough inner safety and nervous system regulation to facilitate deep, lasting changes within our internal world—emotionally as well as neurobiologically.

How Trauma Gets Encoded

Let's get nerdy right out of the gate, but I promise, it will be worth it. ☺.

You experience life through your senses (touch, smell, see, taste, hear) in your body, this *precious* place of your beingness. And the sensory data from your senses is transmitted to your brain to be assessed by your amygdala to decide how to respond through questions like: A I safe? Do I need to protect myself? Will I be alone in this?

But here is the crazy part, your amygdala is using a vast majority – up to 90% in fact – of information from your past experiences, not the present moment to make the decision on how to move forward (Cozolino, 2016; Truitt, 2022).

Here is how it plays out.

If what you are experiencing feels potentially threatening, your amygdala activates your body's stress response: *fight-flight-freeze-fawn*. This essentially pulls you out of feeling safe, calm, and emotionally agile and into hyperarousal (unclear thoughts, distress, anxiety) or hypoarousal (numb, depressed, lethargic) (Truitt, 2022).

Let's take this idea one step further with *traumatization*. If this activating event feels big enough it may be traumatically encoded at the cellular level. And for an event to become traumatically encoded into our system, four elements are required:

1. An **event** (real or perceived) that changes our neurochemistry through intense emotional response via our senses.
2. **Meaning** that has a deep level of attachment or threat of loss to us physically or personally (life, injury, relationship, loved one).
3. **Vulnerable landscape,** which makes encoding more likely than a resilient landscape. Note: the vulnerability of our landscape can shift at any given

moment due to temperament, chronic stress, past traumas, hormonal changes, sleep, health, etc.

4. **Inescapability**, a feeling that there is no way out or a lack of control, whether that is real or perceived (internal sense of being trapped).

When all these elements are present, a neurochemical cascade occurs in the brain and encodes that experience as a traumatic memory. And here is what's extra important, *the neurons that encode the experience will permanently stay activated*, which means that our amygdala will become triggered any time it recognizes something familiar to the encoded event (Bechara et al., 2003; Šimić et al., 2021; Sun et al., 2020). Many, if not most, of our reactions and emotions are riding on previously traumatic encoding.

Your past literally shapes your present day to day lived experience.

What does this look like?

For example, you may feel a larger-than-expected emotional charge and somatic response (e.g. upset stomach, a gripping sensation in your throat) when someone in our life unknowingly makes you feel unwanted in a way that is uncomfortably similar to how a parent made you feel when you were younger.

Our well-traveled neural-highways are already primed and ready. Simply put, encoded traumatic memories will continue to stay activated until something is intentionally done to deactivate them, which is the potential of *Havening Techniques*® (Truitt, 2022).

Symptoms of Trauma

Until recently, it was believed that painful past experiences and the aforementioned encoded traumatic memories altered our neural pathways in ways that couldn't be healed. And the accompanying somatosensory or nervous system responses were just to be managed. Examples include:

- Anxiety
- Big emotions like fear, guilt, shame (activated too easily & last too long)
- Panic attacks
- Phobias
- Post-traumatic stress disorder (PTSD)
- Psychogenic pain (psychological in origin, often low back pain, upper back, neck, jaw)

We now know de-encoding trauma and its associated symptoms is possible.

Dr. Ronald Ruden, a physician and research scientist, spent many years mapping exactly what happens in our brains, specifically in the amygdala, when exposed to trauma. His focus on the molecular mechanisms causing past traumas to continue influencing the brain and body led him to discover a way to permanently shift the neural circuits holding onto these old wounds, thus *Havening Techniques* was born (Ruben, 2011).

***Symptoms Sidenote*:** symptoms of a trauma can show up even years after an event. The landscape could be very different at the time the trauma was encoded, developer of *Havening Techniques* Dr. Ruben explains it this way: "*symptoms may be delayed or occur not at all, depending on the landscape. Thus, the expression of symptoms is not always directly related to a particular traumatic event, but rather from the cumulative effect of unrelated stressors and the maladaptive responses that create a permissive landscape for symptom generation*." (Ruben, 2019)

Backstory on the Amygdalae

The amygdalae (there are two) are structures in the brain's limbic system that sit roughly behind your eyes and are primarily responsible for processing emotions and forming emotional memories. They play a significant role in how we experience and regulate emotions like fear, anger, and pleasure, which is why they are often referred to as the "emotional centers of the brain."

The amygdalae prioritize survival, remember, this part of your brain is always asking "am I safe?" And while this natural mechanism is essential, it can get a bit off kilter or can even "hijack" our brain and body due to our well-traveled neural-highways of past experiences.

Furthermore, once activated, the amygdalae can be difficult to calm down, keeping us in an activated state long after a stressor is over. And when our stress response stays activated, cortisol levels also stay high, and we are more likely to over-react to everyday happenings, which can evolve into chronic anxiety, rumination, and constant overwhelm.

Thankfully, there is a way to unwind from this pattern and move in the direction of calm, ease, and hope in body and mind. Science now understands we can *de-link*

old neural-highways of the past and establish new pathways and have a more empowered relationship with our mind and body.

Havening to the Rescue

Havening is considered a *psychosensory therapy*, which uses sensory input to shift the brain's electrochemical response for psychological healing (verses talking or drugs). This modality belongs under the same umbrella as EMDR (Eye Movement Desensitization and Reprocessing) and EFT (Emotional Freedom Techniques). EMDR was the first *psychosensory technique* to gain wide acceptance for addressing such things as PTSD, anxiety, phobias, and other fear-based responses.

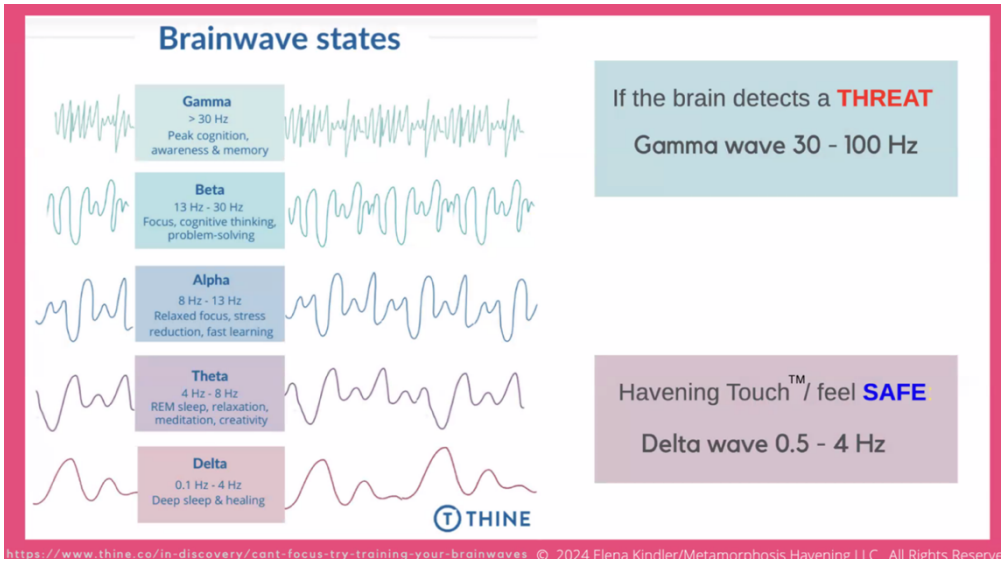
Back in 2012, psychophysiologist Melvin Harper identified that psychosensory techniques—such as lateral eye movements, hand buzzers, or tapping—all create electrochemical changes in the central nervous system and increased the brain's delta wave activity (Harper, 2012).

Dr. Ruden built on these concepts and found that adding the power of delta-wave producing touch and cognitive distractions to take up the capacity of the working brain maximize change at the cellular level. In more scientific language, *Havening Technique* has been shown to *depotentiate* traumatically encoded or stress-induced changes that occur in the neurons of the amygdala. *Depotentiate* is a fancy term that means to reverse the effects of the neurons that are responsible for originally encoding a traumatic event (Ruden, 2019).

Essential, *Havening Techniques* have been demonstrated to *de-link* traumatically encoded emotional and somatic stress from our working memory, providing permanent changes in our neurobiology to reduce the distress associated with a traumatic event, while enhancing emotional resilience.

Brainwaves: Your Body's Electrochemical Charge

Your body's own innate brainwaves are at the heart of how Havening works. Brainwave states, measured in Hertz (Hz),



represent patterns of electrical activity generated by the brain's neurons. These brainwave types—alpha, beta, theta, delta, and gamma—are linked to various mental states, such as alertness (beta), relaxation (alpha), and deep sleep (delta).

Our brainwave states fluctuate throughout the day. When our mind-body system detects a threat, gamma brainwaves are naturally produced and sent throughout the nervous system. For example, those with PTSD have a higher level of gamma waves compared to those without it. (Moon, 2018)

Conversely, delta brainwaves, the slowest, occur mainly during deep sleep and are associated with a feeling of safety, enabling healing and memory consolidation. When delta waves flood our nervous system, they naturally reduce the stress hormone cortisol, lowering sympathetic activation (*fight-flight-freeze-fawn* responses). Simultaneously, delta waves promote the release of feel-good neurotransmitters such as serotonin, oxytocin, and GABA, which foster calm, connection, and healing, allowing us to be present and think more clearly. (Grewen, 2005)

Additionally, delta waves create neurochemical changes that soothe the amygdalae—decreasing distress and enhancing feelings of safety and calm, which is central to the healing potential of *Havening Techniques*.

Delta Waves Work at a Biochemical Level

Neuroscience shows these slow electrochemical delta waves are part of de-encoding trauma by setting up a cascade of events to *depotentiate* (or deactivate) AMPA receptors at the synapse level (the junction between two nerve cells). (Ruden, 2019). AMPA receptors are widely distributed throughout the central nervous system and the amygdalae. This process essentially *de-links* the emotional charge of a traumatic event or memory at a biochemical level.

More simply, delta waves allow old trauma pathways to dissolve and be rewritten. The memory itself remains, but the emotional and physiological reactions—hypervigilance and emotional activation—around the event are reduced. This produces a sense of detachment, **You become detached from the event, and once you detach, there's no emotion, no emotion, no stressors. You feel better** or in other words…

creates a *safe inner space*, *a haven*.

Altogether, by downregulating the nervous system and creating a sense of physiological safety, one is able to directly soothe the amygdala, breaking stress cycles and calming the entire system—often in just minutes.

Small, yet informative studies using Havening Techniques have shown that in as little as one session, rapid improvements in symptoms of depression, anxiety and impaired function, with effects lasting for months (Thandi et al., 2015; Hogdson et al., 2020).

Maximize Delta Wave Production

Research shows that we can generate calming delta waves through *Havening Touch*. And certain areas of the body produce more delta waves than others. Tactile stimulation—specifically on the cheeks, shoulders, and palms—can produce up to 90X more delta waves than other areas (see box to right; Harper, 2012). *Havening Touch* can be applied effectively either by oneself or with the assistance of a Havening Practitioner.

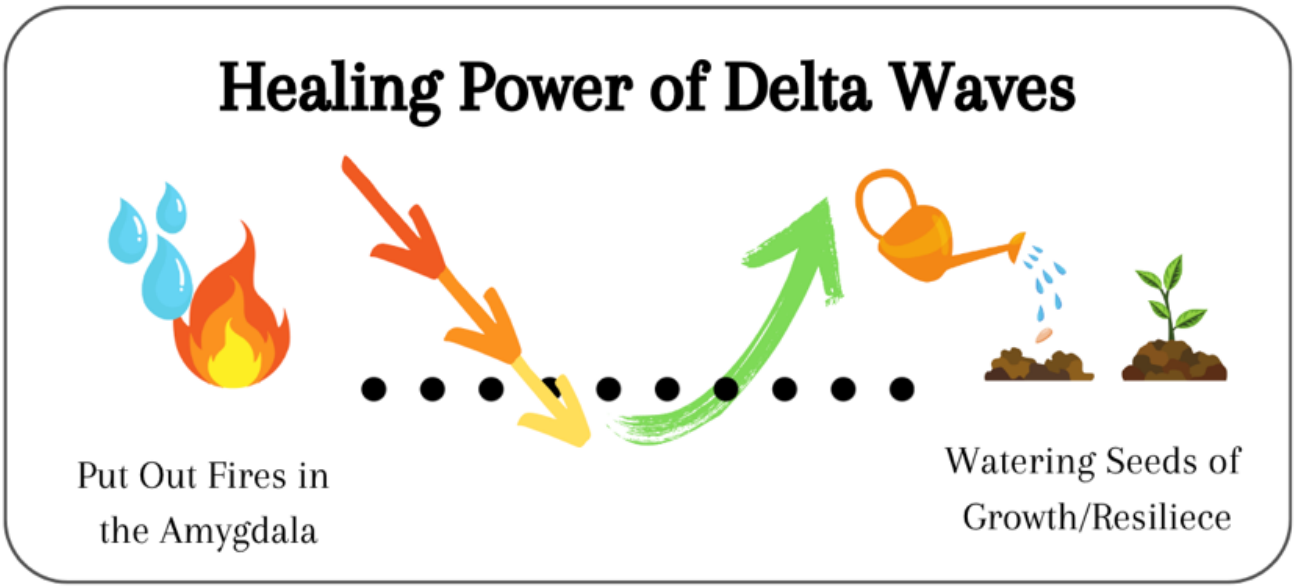
Delta Wave Production with Tactile Stimulation
(compared to resting state)

Cheek 90X
Shoulder 5-38X
Palms of Hands 5X
Lateral Eye Movements 12-20X
Back of Hands 1.1X
Knee 1X
Gamut Point 1.1.X
Meridian Points 1X

Source: (Truitt, 2022)

Protection Against Future Amygdala Hijacks

The more delta waves we generate, the more we reduce distress and ease painful memories. Moreover, these calming, healing waves also create a "resilient landscape," giving us the capacity to mitigate future traumatically encoded memories. *Havening Techniques* build new neural pathways, or "resilience highways," that support emotional regulation, our desired positive mindset of



safety, hope, peace, or joy.Think of delta waves as rain, it can extinguish the "fire" in our amygdalae, decreasing distress, and simultaneously “water the seeds” of growth, enhancing feelings of safety and calm.

How might this feel?

People report relief, relaxation, lightness, less physical pain, openness, expansion, and a sense of freedom.

To sum it up: Rest in our bodies and minds requires a sense of internal safety and that is what Havening fosters.

Why Add Distractions (Brain Games)

The other unique element of *Havening Techniques* is the use of distractions, or “brain games,” to occupy the mind, redirecting attention and focus. Examples of distractions are counting, visualizing enjoyable hobbies, or humming simple tunes are examples of distractions.

These cognitive distractions engage the prefrontal cortex, which is responsible for working memory. When the amygdala is activated, it draws on working memory resources to compare current stressors with past distressing experiences to protect us from perceived threats (remember, our brain is using a vast majority of information from our past experiences). However, by occupying our working memory with distractions, this protective stress response is disrupted.

The brain can only hold a limited amount of information in working memory at one time, which we take advantage of in Havening Techniques. By calming the mind-

body system through touch while distracting our working memory to interrupts the body's stress response enough to create an setting suitable for the *de-encoding* of the emotional charge associated with painful memories (Truitt, 2022).

Ultimately, the somatic tool of Havening Techniques can *de-encode* trauma from the mind-body system as well as a build a resilient landscape to prevent future traumatizations. Pretty brilliant!

"Havening Techniques® engages your inherent biological systems to permanently heal, strengthen and empower our minds and bodies."

- Dr. Ruben MD, PhD Founder of Havening Techniques

Let's get Havening!

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