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USABP Mission Statement

The USABP believes that integration of the body and the mind is essential to effective psychotherapy, and to that end its mission is to develop and advance the art, science, and practice of body psychotherapy in a professional, ethical, and caring manner in order to promote the health and welfare of humanity.
Whole Brain Integration in the Clinical Application of Somatic Experiencing

C. Anya Hricko

Abstract
Traditionally neuroscience research has been influenced by researchers with left hemisphere bias. Drawing from current affective neuroscience we can begin to understand how the brain processes emotion. The importance of right hemisphere communication in a clinical context is reviewed as a way to foster attunement and nervous system regulation. Effective touch and containment in the practice of Somatic Experiencing (SE) derives from the right brain literacy of the practitioner in sensing tissue, creating a resonant container and encouraging coherence. Beneficial right hemisphere skills can be cultivated with mindfulness and awareness based practices. Ultimately, the most benefit can be achieved clinically by utilizing both sides of the brain to further integration and resolution.

Keyword
Neuroscience – Trauma – Somatic Experiencing – Nervous system regulation - Embodiment

Whole Brain Integration in the Clinical Application of Somatic Experiencing

Panksepp (1998, 2001) contends that in order for neuroscience to progress, it needs to go beyond behavioral and cognitive approaches and deal with the “relatively invisible neurodynamic underbelly of the mind addressed through the domain of affective neuroscience” (Panksepp, 2001, p. 3). His contention that neuroscience research has traditionally been biased by researchers strong in left hemisphere skills and weak in right hemisphere skills warrants serious consideration. The need for validation and empirically based research has kept our understanding of emotional terrain confusing regarding deep affective states, given our inability to manipulate or measure the neuronal activity associated with internal feelings. In addition, consensus regarding empirical observation was not possible before developing an ability to observe the neural activity accompanying emotions. Panksepp argues that this limitation has contributed to a longstanding conservative approach in behavioral psychology research and has kept the field intellectually sterile.

The Importance of Right Brain Communication in Clinical Practice

An affective revolution in contemporary neuroscience has produced much research supporting increased understanding in the biology of emotions. In particular, much is now known about the importance of early experiences on brain development. According to Schore (2003) our brains learn how to organize our experiences through relationship with another brain. Schore speaks to the importance of resonant affective communication on the development of the right brain for modulating emotions, coping with stress, and processing social, emotional and bodily input.

Research has demonstrated that it is the right hemisphere, not the left hemisphere that processes unconscious emotions and contributes to emotion regulation (Schore, 2003). Siegel (2001) suggests that attuned communication through right brain to right brain resonance and non-verbal communication between mother and infant in the early years has a significant impact on the infant’s developing mental integration and subsequent ability to emotionally self-regulate.

Moreover, van der Kolk (2001), in addressing the importance of understanding bodily perceptions and awareness as the foundation for self-regulation, stresses a critical need in trauma resolution to be “in touch” with oneself, able to identify and tolerate uncomfortable or distressing sensations, feelings and experiences (p. 17). In addition, he proposes that in order to heal trauma, individuals need to know that it is safe to experience emotions and sensations. In trauma or memory recall, there is an experience that time freezes, while emotions and sensations are in constant flux. Using mindfulness practices clients can learn to increase their tolerance for distressing internal sensations and begin to consciously notice as sensations shift; as they gradually subside, clients begin to differentiate between emotions and sensations. Present, focused awareness helps to create distance from prior, overwhelming experiences, reorient to the now, and open awareness to non-traumatic experiences.

Neuro-imaging studies of people with post traumatic stress disorder (PTSD) show decreased activation of the medial prefrontal cortex, a region of the brain associated with the integration of emotion and cognition that contributes to arousal dysregulation (Shin et al., 2001). According to van der Kolk, (2006) increasing the client’s ability to focus on internal sensations can activate the prefrontal cortex and enhance emotional, cognitive, and sensory motor integration of past trauma. Van der Kolk (2006) concluded that therapy for PTSD is most effective when it involves self-awareness, self-regulation, the ability to orient to the present, and explores new ways to engage with the environment.

Furthermore, Schore (2003) stresses the need for right hemisphere to right hemisphere communication between the patient and the therapist in order to effectively alter the brain and assist with affect regulation. Howes (2000, as cited in Wilkinson, 2003) agrees, suggesting that the therapist must remain “right brain limbic” to achieve the empathy necessary to communicate with the patient’s emotional brain (p. 248).
Porges’s (2001) polyvagal theory further elucidates how the brain operates and provides a new perspective for furthering nervous system regulation and activation of right hemisphere communication. He proposes that there is an evolutionary hierarchical design of autonomic nervous system regulation. Rather than the previously accepted two reciprocal systems (sympathetic and parasympathetic) he delineates three sequential systems. The oldest system, dorsal vagal, is part of the parasympathetic nervous system and is associated with the immobility response in trauma. Next, the sympathetic nervous system relates to fight and flight response. Third, the ventral vagal system is unique to mammals and fosters social engagement. In the polyvagal theory of the autonomic nervous system, survival strategies will attempt a response from the more sophisticated ventral vagal system first, then sympathetic arousal will engage, and if that fails to work, the dorsal vagal immobility response is the last resort.

Porges’ theory (as cited in Dykema, 2006) gives us an understanding of the unconscious motivations of the nervous system, offering more options to mediate reactions. Through the social engagement system (ventral vagal), clients can be helped to feel safer and calm hyperarousal through eye contact, voice modulation, and facial expressions. Porges notes that triggering the social engagement system turns off stress responses; it is self soothing, calming, and more metabolically efficient (p. 7).

### Working with Right Hemisphere Skills in Somatic Experiencing

When working with the non-verbal right hemisphere where emotion and sensation are processed, clinicians must be literate in accessing and tracking bodily and affective material. Siegel (2001) proposes that enhancing the innate tendency of the mind to move towards integration within the brain and through positive interpersonal relationships can enhance the capacity to achieve integration and self-regulation. Deep attunement between therapist and client is an essential aspect of the therapeutic relationship that makes change possible. For a therapist to be an effective conduit for transformation, it is important to create a resonant state internally that can help the client move toward healing. Empathic relationships, according to Siegel (2007), involve a connection with ISO [the internal state of the other] and NOTO [narrative of the other] (p. 290).

In Somatic Experiencing (SE), a body-based trauma resolution therapy, attuned communication is particularly important because SE speaks the language of the body using felt sense to track and integrate traumatic experiences and incomplete responses thwarted during traumatic events (Levine, 1997). In order to assist a client in tracking sensation, the therapist needs to be attuned to the client’s subtle body signals. Such attunement involves empathic emotional connection and somatic resonance which is best described as empathic resonance that occurs body to body and includes the energetic inter-subjective space between client and therapist (Shaw, 2003). The therapist can use his or her own body to perceive shifts in energetic and somatic information. For example, when working with a client, it is helpful to mindfully pay attention to one’s body. This mindfulness allows for a deeper level of self-care and regulation, as well as enhancing the ability to notice important shifts occurring with the client through somatic resonance. For example, the felt experience of the client may be mirrored in what the therapist senses somatically through her own body. Without assuming that her feelings or sensations belong to the client, she can invite further exploration by inquiring about the client’s experience in the moment. Often this somatic resonance opens the door to deeper levels of attunement and information not available through language alone.

In addition, being in attunement allows the therapist to be more aware of any somatic countertransference. An example might be feeling tightening in the chest and shallowness in the breath as the client’s nervous system becomes activated. Through self-reflection and awareness, the therapist has the opportunity to self-regulate and stay present with the client. In this way, she can act as an external regulator for the client, affording time for the client to become more adept at auto-regulation. If the therapist were to experience the same sensation without conscious, right brain awareness, she might instead come from a left brain perspective and move into analysis of what was happening with the client, ignore her own process, and essentially move the client’s process in another direction. Steering away from somatic regulation into content might then be perceived somatically by the client as a disconnect from the therapist as they collude in discounting the non-verbal signals. At worst, such a scenario could be re-traumatizing for the client, as trauma is often experienced in the non-verbal areas of the brain; at best, it would not be useful in assisting the client to move toward affect-regulation and tolerance of sensations: functions that live in the body and are mediated by the right hemisphere.

Right hemisphere skills are essential in working with touch and containment in SE and other somatic based practices. The clinical application of touch in SE can profoundly affect nervous system regulation at times when language alone is inadequate. Touch is most appropriately used to address deep shock states held in the body and restore equilibrium in long-held physical patterns due to trauma. The practitioners’ hands act as a "gentle organizing force" (SE training manual, 2007, p. A 2.6), increasing capacity for containment: the overall ability to tolerate and manage intense experiences without losing stability. Through resonant touch the therapist can more directly communicate with the nervous system encouraging coherence, and re-establishing communication within the systems of the body.

In working with touch, it is important for the therapist to be conscious and aware of what she is bringing to this subtle level of communication. If she touches the client without awareness, this can inadvertently recapitulate earlier trauma. Sensitive attunement and ability to perceive somatic feedback allows the therapist to titrate (going slowly, little by little) the level of arousal, perceive shifts as the tissue constricts or expands, and provide a resonant container for furthering regulation and coherence.
Through touch we can have a more direct experience of the unfolding of the healing process and offer the client a more direct experience of what it feels like to bring attention and awareness into the body in a safe and contained way. Furthermore, the stability created by clear, present touch can assist the client to stay with an experience and learn how to modulate affect without going into an overwhelmed state or experiencing hyper- arousal of the nervous system.

As a Somatic Experiencing practitioner, I have observed the profound benefits of using conscious touch to establish a greater sense of coherence in the body and mind. Tracking the breath and paying attention to how each part of the body is responding to the gentle pulsation of the breath while working with touch is a good indicator of nervous system regulation. It is useful to track the relation of coherence through the tissue with reflections of coherence through the breath, and the rest of the body. For example, a well-regulated system will have the ability to expand and contract in a wave-like motion in response to the movement of the breath. Conversely, when the breath is rapid or constricted, tissues are braced or slack and there is a disruption in the way the breath moves throughout the body, an indication of nervous system dysregulation or activation (SE training manual, 2007). As the nervous system becomes more balanced and coherence returns there is a notable difference in the breath. The breath becomes slow and deep, spreads throughout the body creating a sense of connection and resonance between body areas. A synchrony between breath, muscle, and blood volume re-emerges as coherence re-establishes. As the system opens, it allows for more movement, re-organization and communication among body systems (Heller, 2006).

In order to perceive the language of sensation, it is essential for therapists to be right brain literate, somatically aware, and embodied. As a somatic educator, I have taught somatic awareness skills to many massage therapists and somatic therapists/practitioners. Most of the challenges presented were directly related to the therapists’ ability to access right brain skills and stay present in their bodies as they worked with clients. Issues that emerged ranged from occupational injury from poor body mechanics to somatic countertransference issues that presented as accumulating and unprocessed somatic stress and vicarious trauma. When practitioners were able to directly sense their bodies through felt sensation, they were able to make necessary adjustments, discharge activation, and become clearer vehicles for attunement and healing.

**Strengthening and Integrating Right Hemisphere Skills with Left Hemisphere Processes in Clinical Practice**

Right hemisphere communication in the therapeutic relationship is of immense importance, but it would be imprudent to discount the involvement of left hemisphere communication for integration. Siegel (2007) reminds us that narrative integration involves the circuitry of the left hemisphere that helps us “sort, sequence and select neural maps to weave a story” (p. 309), helping us to more deeply understand our past, and create integration and meaning for a healing present. Wilkinson (2003) suggests that right hemisphere communication between therapist and client is an essential precursor to the left hemisphere integration which is needed to fully process traumatic experiences.

Likewise, van der Kolk (2001) asserts that an important task of therapy involves integrating the right hemisphere capacity for awareness of the body and sensation along with the left hemisphere ability to use language and symbolic representations. In this way, making more meaning out of experience and uncoupling physical sensations from emotional responses ameliorates the intense affects of past trauma.

In SE, greater integration comes with working all levels: (SE training manual in Foundation for Human Enrichment, 2007) sensation, image, behavior, affect and meaning. As SE practitioners, we are working to integrate left and right hemisphere processes. As already mentioned, being able to sense the body and provide a somatic resonant containment for the client to learn auto-regulation, involves the ability to be mindful. Mindfulness based practices can be very useful for facilitating increased right hemisphere literacy for left hemisphere dominant clinicians.

Fisher (2004), a body centered psychotherapist, cites the effectiveness of mindfulness in the practice of psychotherapy, proposing that for therapists to help clients achieve greater mindfulness, therapists need to first tune in and slow down themselves. For SE practitioners to help their clients self-regulate, it is very useful to regulate their own nervous system first. In this way, they can be a more effective conduit for somatic resonance and neural integration, as well as use their present awareness to more aptly perceive what is happening in a session.

Some of the tools Fisher (2004) proposes to assist the therapist in working with the experience of the present moment are those commonly used in SE. One of these tools is “tracking” (p.1). Fisher suggests that much of what happens in therapy sessions occurs in the non-verbal realm, and that using “tracking” to orient to the present moment increases the therapist’s ability to perceive the subtleties of non-verbal communication and the inner states of their clients. This is especially true in SE when working with non-verbal touch and containment.

Siegel (2007) also advocates the practice of mindfulness in therapy. He provides not only an overview of how neuroscience can be integrated into our lives and practice but also valuable tools to shift our focus into present time, establishing a base of awareness that can bring more balance and internal integration. Skills such as these are particularly useful in developing right hemisphere strengths for clinicians to enhance attunement, coherence, and neural regulation.

Siegel (2007) maintains that when we are living on automatic pilot we are not fully engaging in our lives. In addition, we are more prone to what Siegel refers to as “top-down” constraints (p. 134). Top-down processes involve the way in which the neocortex embodies previous learning experiences which include autobiographical memories, beliefs, and mental models. In turn, these processes set up neuron circuitry with large-scale neuronal firing patterns that involve limbic, parietal and frontal regions. These habituated brain states interfere with our perceptions, thus adversely influencing our experience of the present
moment. They may often cause us to generate judgments about ourselves and others, and elicit a set of inflexible or inappropriate feelings that become immutable and overbearing. Mindfulness allows us to break free from the influence of these ingrained patterns and access what Siegel refers to as “bottom-up” (p.137) processes: our more primary, basic sensory experiences, and core self experiences.

The perspective of top-down and bottom-up processes is applicable to SE as trauma resolution involves processing of bottom-up experiences with top-down regulation. Ogden and Minton (2000) describe the interplay between top-down and bottom-up processes in the treatment of trauma, as conscious top-down regulation can be used to support bottom-up experience, together creating better regulation and integration. This is analogous to using right hemisphere capacity to access sensory experience in conjunction with left hemisphere capacity for shifting meaning and beliefs.

My own development in my practice as a clinician has been further enhanced through Porges’s (2001) polyvagal perspective. I have found it useful to bring my left hemisphere understanding of the polyvagal hierarchy to bear on better understanding and work on my own development in my practice as a clinician. Porges’s (2001) polyvagal theory is about immobilization to conserve oxygen, the client may also be disconnected or dissociated with hypertonic muscle tone and low affect. Engaging mobility by accessing the sympathetic nervous system (SNS) can release the shut-down and assist the client to complete defensive responses thwarted at the time of trauma. As one comes out of chronic PNS they may go through a SNS response.

A client with SNS dominance may present with symptoms such as rapid speech, hypervigilance, agitation, rage, and hypertonic muscle activation, such as a tight jaw (Heller, 2006). Shields (2004) suggests that chronic jaw tightness creates additional emotional agitation and can kindle a stress response which keeps the SNS fired up.

As a client works through the trauma in a session, he/she will ideally shift from predominantly PNS or SNS to the more evolved ventral vagal system, re-establishing the capacity for social engagement. Parker (2004) emphasizes the importance of noting what part of the nervous system is active at the end of a session. She proposes that effective therapy requires moving the client back up the scale towards higher adaptations of the nervous system, engaging ventral vagal and the social engagement system (SES).

By tracking the different systems with a client, the therapist can assess how trauma resolution is progressing. When a client begins to engage socially, it is a sign that he/she is moving up the autonomic nervous system hierarchy. Therapists can also initiate social engagement to help modulate nervous system activation and assist the client towards nervous system regulation and integration. However, Porges (as cited in Dykema, 2006) stresses that engagement is not possible without a sense of safety. Understanding relevant physiological underpinnings allows the therapist to work more effectively with the client’s nervous system to facilitate regulation rather than forcing an interaction that could be counterproductive.

In conclusion, as a predominately right brain individual, I’ve observed that learning how to engage left brain skills has created a shift in my practice that would best be described as finding the marriage between my acute sensitivity and empathic nature, and my more linear analytical skills. This has allowed me to access specific techniques that then inform how I sequence through a session. In my case, strengthening left hemisphere skills grounded what I intuitively knew. In addition, having more range allowed me to communicate better with clients, meeting them where they were, while assisting them toward more effective self-regulation skills. Furthermore, although it is essential to develop and utilize right hemisphere skills in working with the body and SE in general, it is also important to bring a balance of both left and right hemisphere communication to clinical work. It is the opinion of this researcher that clinical practice is ultimately most effective when practitioners are flexible, adapt to the flow of changes, and harness the strengths of both sides of their brain.

References


**Biography**

C. Anya Hricko, MA, SEP has a broad range of experience in the somatic traditions. She is certified as a Somatic Experiencing Practitioner and Somatic Movement Therapist with extensive training in Integrative Bodywork, Process Work, and Body-Centered Coaching. She is currently a 4th year doctoral student at the Santa Barbara Graduate Institute where she is pursuing a clinical degree in Somatic Psychology. She is passionate about integrating neurobiological research and somatic approaches into trauma therapy and influencing conventional therapy to embrace the body. She trains therapists and somatic practitioners in embodiment skills, somatic interventions, and whole brain integration. She lives in Massachusetts where she teaches, writes and maintains a private practice specializing in Somatic Psychotherapy, trauma resolution, and Body-Centered Coaching. She can be reached at: somawisdom@comcast.net.
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The Official Publication of the USABP

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Please include an endnote with author’s degrees, training, mailing address, e-mail fax, acknowledgement of research support, etc.

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