

The Characteristics of Interpersonal Nervous Systems

by Michael J. Shea, PhD | © 2008 All rights reserved

1. Adult therapeutic relationships mimic infant-caregiver brain interactions. The context of a loving interaction is the experience that connects the higher centers of the brain for self-regulation. Context is crucial.
2. The heart-brain-face complex is an empathy based neurological and cardiovascular system. Wiring goes directly from the face to both the brain and the heart from perceiving another person. Then there is reciprocal communication between the heart and brain.
3. Each person in the therapeutic dyad is processing the other person's autonomic nervous system. This means that I, as the therapist, can down-regulate the other person's autonomic nervous system when it is activated.
4. Dendritic fields in the right hemisphere of the brain recreate the other person's emotional body as experienced through the corticolimbic system in the brain and autonomic nervous system in the heart and body. This is called the mirror neuron system which means that the fundamental wiring in the infant's brain is for empathy and compassion through "mirroring" of the other person's emotional state(s).
5. This empathy-based brain research suggests that there are four things going on within the process of compassion and empathy located in the medial prefrontal cortex of the brain.
 - a. Activation. This means that mirror neurons are activated from reading the facial expression, vocal tone, gesture, body movement and physical touch of the other person. I begin to unconsciously recognize another person's feelings.
 - b. Translation. These mirroring properties in the outer perimeter of the cortex move deeper into a limbic (amygdala, hippocampus and hypothalamus) mirroring resonance that is more lateralized on the right side of the brain. Then the right brain translation moves down into the core of the body as a felt sense around the heart, gut, extremities, etc.
 - c. Interception. The cognitive awareness of the process begins to arise.

- d. Interpretation. This is the apprehension of the feeling or emotion in the other person.
 - e. Attribution to other. I'm feeling this emotion which may not typically be mine and therefore must be coming from the other person. This is the classical domain of psychological projection and transference which is now being revised into an empathy based therapeutic understanding.
6. This means that the therapist creates a representation or felt sense in his or her body of what the other person's emotions are.
 7. It is a largely unconscious process until it activates the therapist's own autonomic nervous system related issues. This is inevitable. Consequently the first question that arises in this perception is: *whose emotion is this, mine or the other person's?* That's a good question that can only be answered in the context of which it is asked by a well processed embodied therapist. It really doesn't make any difference who's who because it is now contained in the body of the therapist and being processed at that level.
 8. The process of empathy and compassion however, is neurologically a two-way street. While the therapist is undergoing the process described above, at the same time, the client is doing exactly the same, just as in the infant-mother relationship. This is called the co-metabolization of affect via two interpersonal, interconnected central and autonomic nervous systems. When I as a therapist recreate my client's emotional body in the right hemisphere of my brain and then bring it down into the core of my body to get a felt sense of other, I am concurrently metabolizing or literally taking away parts of the other person's stress level. Any mother can tell you this, that sometimes when she is stressed out and makes eye contact with her baby that her stress instantly goes away. This is not magic. This is the infant metabolizing the mother's stress through its empathy-mirror neuron system. The mother likewise does the same for the infant. We do this for our clients and they return the favor and do the same for us. The client has to make his or therapist the best or worst one in the world.
 9. Some of the antidotes to working with this interpersonal nervous system are as follows:
 - a. As much as possible, maintain a three dimensional sense of one's own body shape and form.
 - b. Regularly place attention in the gut, the middle of the brain, the heart and all the blood capillaries under the surface of the skin.
 - c. Focus on the relationship between Primary Respiration and Stillness. The autonomic nervous system must have access to a slow tempo by resonating with that of the therapist.

- d. Learn to attune within the tempo of Primary Respiration and Stillness. Attunement is the conscious movement of attention from inside the body to outside the body (to another person as well as the natural world) and back. This requires what is called deliberate attention or effortful mindfulness in order to sustain attention on a slow tempo or retain attention on the apprehension of stillness for prolonged periods of time.
 - e. Seek and facilitate warmth in the body when touching the client by conscious breathing.
10. Always ask the client how well they slept last night. REM sleep is considered to be one of the best remedies for a stressed out brain.

In closing, therapists need to pay closer attention to their own mind, body and emotions before, during and after working with other people. We not only have interpersonal nervous system relationships with everyone, since it is a basic neurological function at any age, but we share this interpersonal relationship with all sentient beings. This means that we need to be in balance with the natural world – like trees and the ocean, the birds in the air, the animals in the forest, the insects on our kitchen counters – as much as our children, friends and clients.