the usa body psychotherapy journal

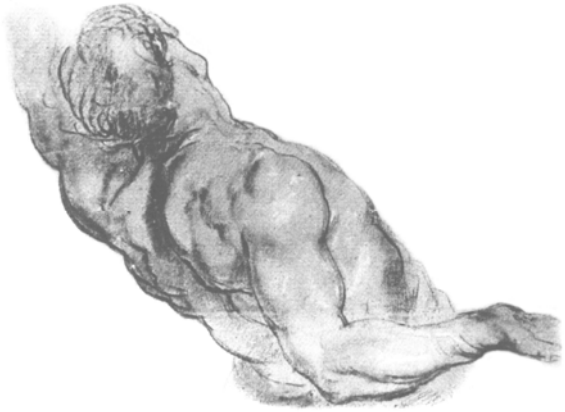
Back Issues and Subscriptions Available at www.usabp.org

Volume 10 Number 1 2011

The Official Publication of

THE UNITED STATES ASSOCIATION FOR BODY PSYCHOTHERAPY

Table of Contents



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 humanit

Viva Las Vagus! The Innervation of Embodied Clinical Intuition

Jennifer Frank Tantia, MS, BC-DMT, LCAT

Abstract

Often called the "sixth sense," "gut feeling" or "other way of knowing," intuition is a phenomenon of the human condition that is frequently acknowledged but seldom explained. The body is said to house unconscious awareness that is not processed in language (Aposhyan, 2004; Levine, 1997) Body psychotherapists are the chief advocates and teachers who use non-conscious awareness, or "felt-sense" (Gendlin, 1981) as a source for knowledge and truth in healing. In embodied psychotherapeutic practice, it is quite possible that the direct experience of embodiment is evocative of the immediate and non-verbal "feeling" or "sense" of intuition. This theoretical article suggests that the interface between embodiment and intuition happens through metaphors, particularly of the "heart" and "gut" that correlate with the physiology of the vagus nerve.

Keywords

Intuition – Embodiement – Body psychotherapy – Vagus nerve – Somatic Psychotherapy

"Whatever dimension of the outer world one considers, it is through the body that one experiences it, and it is through the body that one distorts it to make it more comprehensible" (Dreyfus & Feinstein, 1977, p. 108).

As a dance/movement therapist and body psychotherapist, I have often found myself speaking with a client and suddenly seeing their eyes bulging from their heads while exclaiming, "How did you know that?" This happened often and although I felt as stunned as they, I had eventually managed to maintain the therapeutic context of integrity and honesty by simply responding, "I don't know." To my surprise, this has always proved to be an acceptable response to my client, yet I would continue wondering to myself ***how*** *I knew information that was not overtly offered. The following vignette describes a situation in which intuition itself provided me with some answers to my question.*

As a psychology intern at a day treatment program for individuals with HIV/AIDS, I led a weekly group entitled, "Body, Mind and Addiction." The group consisted of twelve men, ages ranging from 35-65, with varying addictions from heroin to sex, and at varying levels of recovery. Physical complications from HIV were conflicting with their addictions, and in addition to finding themselves socio-economically-challenged, they were also coming to terms with the fact that using drugs was simply "not fun" anymore. This shift in attention forced them to take a keen interest in their health, both physically and mentally. As a result, their insights and supportive interactions created a beautiful healing environment in our weekly "Body, Mind and Addiction" group.

At the beginning of a particular session, I noticed an unusually high level of energy; the group members were laughing, talking loudly and pushing each other playfully as they entered the room. I decided to wait for the excitement to wind down before beginning the session. However, the rowdiness continued and the men proceeded to talk and laugh. Instantly and to my surprise I found myself doing something very "un-therapist-like." I stood up and, elevating my voice over theirs, yelled, "You know…you make decisions based on four areas of your body…your HEAD, your HEART, your GUT, and your GENITALS!"

Silence immediately permeated the room. Stunned at my own spontaneity, and their resonance with it, I barely spoke a word for the next forty-five minutes as I witnessed the group members unwrap the ways in which they make decisions in their lives based on the four areas that I had cried out just moments before. The clients used the four areas: head, heart, gut, and genitals to describe metaphorically how those places represented different ways of connecting with others; how they can be dormant or over-used; how the four areas were sometimes in conflict within their experiences (for example, heart and genitals in romantic relationships). They also discussed other defining aspects in relation to how certain areas felt in the body at different times. Two examples that they presented were physical heaviness in the heart during depression or anxiety, and the way that their gut told them that something bad was about to happen.

I was used to the results of intuitive interventions like the one I mentioned above, but this one really commanded my attention due to my uncharacteristic intervention and its group-wide effect. I was not only surprised at the spontaneous words that were emitted from my mouth, coming from "out of nowhere," (an intuitive intervention indeed!) but moreso the clients' immediate understanding of what I had blurted out. With my curiosity activated, questions began to emerge in my mind. Are there actual neurological correlates to the metaphors of head, heart, gut and genitals? Did each of these areas hold specific meanings for human experience, or were they different for each person? Does personal meaning of the said areas only correspond to physical function or were there aspects of embodied intelligence that exist concurrently with physical function? Is intuition one of those experiences?

At the time of this surprising group experience, I was a second year doctoral student and had been studying Steven Porges' Polyvagal Theory (1995) that describes the function of the vagus nerve in the relationship between self and others. On a hunch, I checked with my class notes and found that the vagus nerve has three branches that directly correspond with what my intuition already knew. The vagus nerve, which originates in the medulla oblongata (Hole, 1987) branches out into three main plexuses: the cervical plexus (at the base of the skull, or "head"), cardiac plexus ("heart"), and celiac plexus ("gut"). To add to my excitement, six months later, I met Barry Komisaruk, Associate Professor at Rutgers University who conducted a study on women with spinal cord injuries (Komisaruk, Whipple, Crawford, Grimes, Liu, Kalin, and Mosier, 2004) that reported

potential innervations of the vagus nerve in the pelvic plexus ("genitals"). To my astonishment, my "intuition" that I had blurted out six months prior was validated through a random chance meeting with Dr. Komisaruk.

Introduction

Most definitions of intuition (particularly in the cognitive sciences) include the words "unconscious," "non-linear," "illogical," "non-verbal" and "irrational." Such descriptions keep the definitions of intuition chained to a negative space that prevents a positive (i.e., existing) identity. To say that a phenomenon is identifiable solely in the absence of something else seems to negate its existence to some degree. By using logic or cognition to describe a phenomenon that is purely *non-logical* or *non-cognitive* at best sends it into an intellectual tailspin; at worst it dismisses the value of the phenomenon's identity. To address this incongruousness, this article seeks to introduce the concept of intuition as a subjective and a positive (i.e., *existing*) phenomenon by articulating one type of intuitive recognition that is felt through the body: embodied intuition. In addition, it will offer some beginning thoughts on the congruence between common bodily metaphors used in body psychotherapy and the anatomical innervations of the vagus nerve.

The similarities between intuitive recognition and embodied experience offer the possibility that intuition and body-based experience are closer than perceived. Researchers in the field of clinical intuition have described qualities of intuitive phenomenon as immediate (Petitmengin-Peugeot, 1999), faster than cognition (Charles, 2004), and often understood as a feeling separate from a thought or emotion (Vaughn, 1979). Interestingly, similar descriptions are used for direct, bodily-based experiences in somatically-oriented psychotherapies (Gendlin, 1981; Kurtz, 2010; Levine, 1997). Further similarities are linked to the function of the vagus nerve in neuroscience and physiology. Neuroscientist Stephen Porges has suggested that the vagus nerve complex that resides in several parts of the head and torso, mediates communication between interoceptive activity and external environment (Porges, 1993). Still other scientists suggest that the vagus nerve complex connects the ventromedial prefrontal cortex, or "conscious" part of experience, with viscera or "unconscious" experience (Voltz & von Kramon, 2006; Zagon, 2001). This connection begins to shed light on the possibility that vagal nerve function helps to negotiate the environment through a system that includes another way of knowing- perhaps an *embodied* knowing- that defines the process of intuition in a more present and tangible way.

I suggest that intuition as an immediate embodied experience is also recognized through non-verbal knowledge that cannot be traced to an emotional pattern or memory. The connections between the plexuses of the vagus nerve and areas of intuitive recognition in the body via metaphor are also discussed here.

Embodied Epistemology

Embodiment is the source from which we feel, define and contain life experiences as they happen. As a source of survival, our primitive bodies developed instinctive reflexes designed for self-preservation and survival (i.e., retracting one's hand in reaction to touching a hot pot on a stove). The evolution of consciousness has led to awareness of these actions. In body/mind approaches, some name the practice of this type of awareness, "mindfulness" (Goenka, 2009; Kabat-Zinn, 1990; Kurtz, 2007; Weiss, 2009). Mindfulness encompasses a specific type of attention to one's physical, emotional and cognitive process in the present moment. However, attention to oneself in the moment is but one component of the processes of body psychotherapy (Weiss, 2009) and only a beginning definition toward the concept of embodiment.

Neuroscientist Antonio Damasio names the referred inner experience of one's sense of self in the world as a "core self" (1999, p.17) from which one makes sense of the environment. Embodied experience employs a continuous loop that circulates between internal and external awareness where one senses, feels, and makes meaning of the world. Embodiment is the present time *felt* experience of awareness in a moment as it is happening. However, sometimes our bodily-felt experience precedes cognitive awareness (McCraty, 2004; Lehrer, 2009). One way to describe this phenomenon is through the senses. Our primary senses: smell, taste, sight, hearing and touch all provide information about the environment. Consisting of over one billion nerves, the body feels, integrates, and responds to the environment in a way that functions beyond cognition. In particular, it is the autonomic nervous system that integrates the sensorial, emotional and thought processes that create an embodied perception. This is the system of the lived experience.

Maurice Merleau-Ponty (1962/2008) described embodiment as a subjective experience in which one makes sense of the environment by turning one's attention toward it. Anthropologist and embodiment philosopher Tony Csordas (1993) extended Merleau-Ponty's theory by delineating two ways that attention is comprehended: attending *to* and attending *with* the body (1993). Csordas describes how the former is not simply attending to experience as if the body is viewed as a separate object, but rather a "mode of attending to the intersubjective milieu" (p. 138) of a corporeal experience. Similar to the practice of mindfulness, this type of attention is also a primary technique used in body psychotherapy practice (i.e., Gendlin's "Focusing" and Levine's "Somatic Experiencing"). Csordas adds that feedback from the process of attending *to*, in fact, actually requires attending *with* the body, or the "internal milieu" where body and self are not separate. One example of Csordas' modes of attention is through the process of the dance/movement therapy practice of Authentic Movement in which Whitehouse describes the feeling of "being moved and moving" (in Adler, 1999, p. 143) as well as the attending *with* (in spontaneous movement) which encompasses simultaneously witnessing that movement as it is happening.

In addition to attending *to* and attending *with* one's body, Csordas (1993) suggests that attention to others' bodies is equally important and further suggests that attending *with* is the primary mode of attention that one experiences when viewing another's body. Csordas called this "a cultural elaboration of sensory engagement" (p.139) and illustrates basic tasks of dancing, sports and other physical activity. In somatic psychotherapy practice, there are more subtle ways of assessing and engaging with another's body such as image, shape, rhythm, spatial proxemics (Hall, 1966), and even olfactory knowledge, all of which contribute to attending *with* the body interpersonally.

A more precise observation for the direct use of embodiment with another is Hervey's description of embodied ethical decision-making in dance/movement therapy practice. Hervey (2007) creates a compelling argument regarding the need for embodied knowledge as a part of ethical decision making. She writes, "Ethical conflict can create some of the most violently felt, bodily-based experiences we may have as clinicians" (p. 92). In light of the embodied nature of somatic and movement-based therapists (from both clinician and client perspectives), one can see the inherent necessity for embodied knowledge in clinical practice.

After integrating some of the more profound aspects on theories of embodiment, embodied approaches to ethics, and embodied decision-making, Hervey surmises that some ethical considerations can only be fully understood from an embodied perspective. One simple yet powerful suggestion that Hervey offers to achieve embodied ethical decision-making is "to become aware of the shifts in our bodily states when confronted with a particular situation" (Hervey, p.101). Although the specific ways in which one feels a bodily state can vary among each individual, a shift in state is also a shift in inward consciousness. The whole process might be closely akin to embodied intuitive experience.

Embodiment may provide the type of attention to vagal activity that facilitates communication between the neocortex, or "conscious" part of experience, and visceral "non-conscious" part of experience. In the vignette above, my verbal intervention of "attending to" the four neural plexuses was contrasted with my embodied experience of "attending with" my body, as I found my spontaneous movement and words (standing and raising my voice) to be non-logical, yet resonant and therefore a possible intuitive intervention. In body psychotherapy, sensorial "feelings" in the body that are connected to emotion are often found in the throat and viscera. Feeling in the body requires a particular type of attention that reaches beyond gross motor movements, and requires a subtle type of attention to internal states. By addressing only the physical, one can easily minimize a sensation, and ignore its potential messages. For instance, an "uneasy" stomach could be simplified to "something I ate." However, dance therapists and body psychotherapists attend to bodily sensations in such a way that those emotional components of an "uneasy stomach" come forth, usually discovering that there is more to it than simply one's epicurean choice.

Body to body interaction is an emerging concept in studies of attachment theory (E. Tronick, personal communication November 5, 2007; Schore, 2003) and is also a primary process in dance/movement therapy. Neuroscientist Allan Schore explains that intuition is a "right brain to right brain" activity between mother and infant, where information between the two is understood implicitly since verbal interaction is not available. Schore (2003) contends that the right frontal lobe of the brain is the area that holds unconscious emotional communication.

The discovery and investigation of mirror neurons (Di Pellegrino et al. 1992; Gallese, 2003; Rizolatti & Craighero, 2004) describe a process of empathic resonance between primates, namely monkeys and humans. Not surprisingly, a key process in dance therapy called "mirroring" (Sandel, 1993, p. 103) is a term that dance therapists have used for over fifty years to describe attending *with* the body in order to understand and communicate with their patients non-verbally. In dance/movement therapy, the process of Authentic Movement allows the unconscious to arrive in consciousness by attention to and with the body (Adler, 1999). In Authentic Movement, the client closes his or her eyes and allows spontaneous movement to emerge from the body that is not directed by a thought or emotion. This is how intuitive knowledge can be recognized and utilized to bring attention to formerly unknown aspects of the self.

Learning to cultivate embodiment may begin to shed light on the possibility that the vagus nerve helps to negotiate the environment through a system that includes another way of knowing- perhaps a body-based knowing- that describes the direct experience of intuition.

The Neurobiology of Intuition

Consciousness in the brain and "unconsciousness" in the body are beginning to connect in emerging neuroscientific theories of intuition, or "sixth sense" (Charles, 2004; Lieberman, 2000; Turnbull, 2003; Voltz & Von Cramon, 2006 ; Zagon, 2001). The vagus nerve, also called the tenth cranial nerve is said to be the place of affect regulation (Porges, 1993), emotional sensation and during traumatic experience (Levine, 1997). Of particular interest are the parts of the vagus nerve that branch into four plexuses, coincidentally corresponding with places in the body that somatic psychotherapists have designated as centers of emotion for decades. Those areas are: the cervical plexus (head); cardiac plexus (heart); celiac plexus (gut); and pelvic plexus (genitals), (Komisaruk, Whipple, Crawford, Grimes, Liu, Kalnin, & Mosier, 2004).

Stephen Porges, from the University of Illinois at Chicago has studied the gestures and postures of infants as they respond to their environment. Infants, who are developmentally "preverbal," instinctively develop a nonverbal system of communication, such as cries, movement, and/or eye contact, to negotiate their environment. They develop this in response to sensory input such as touch, smell, sound, taste and vision. Porges, (1993) suggests that our current verbal language negates descriptive words that can communicate somatic/emotional experience.

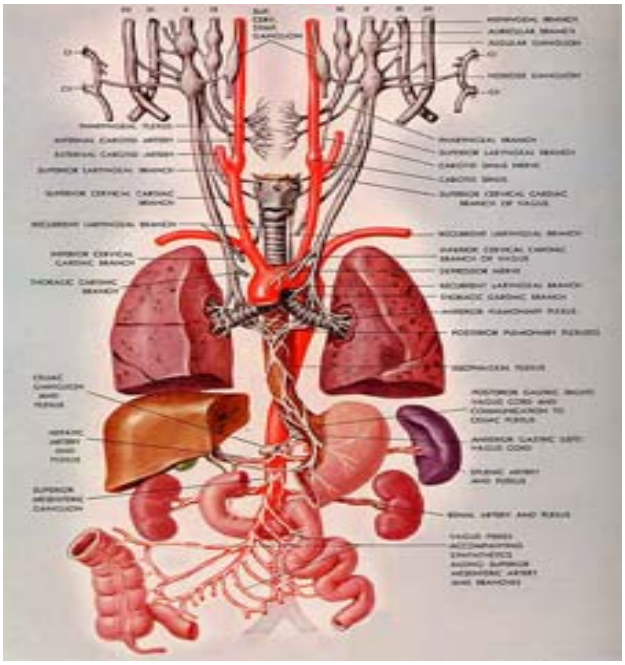


Figure 1: Vagus Nerve Innervation
Note: http://www.ncrf.org/illustrations.html (National Cancer Research Foundation) Reprinted with permission.

Beyond the five primary sense modalities - smell, vision, hearing, taste, and touch, Porges introduces what he calls the "sixth" sensory system, also known as *interoception*, located in the organs of the body, and mediated through the vagus nerve. Interoception is a process by which the body informs the mind of what is going on from an individual's internal visceral environment. "Interoception is a global concept which includes both our conscious feelings and unconscious monitoring of bodily processes," (Porges, 1993, p. 12). Porges suggests that afferent or ascending neural pathways do not always reach cognition, yet play an important role in the body's physiological functioning. "This unconscious awareness fosters stability (i.e. homeostasis) in the internal physiology by rapidly adjusting to support specific motor behaviors and psychological processes," (Porges, 1993, p. 12). The interoceptive system communicates unconscious processes that maintain homeostasis (Porges, 1993) otherwise known as the physiological balance between inner and outer perception. In addition to homeostasis, there is another system that responds to stimuli that emanates from within the body (Zagon, 2001) and communicates in a cyclical loop of information, as opposed to a one-way street. That system is the vagal system.

The vagus nerve (Fig 1) originates in the medulla oblongata at the base of the brain (cervical plexus), and crosses to the front of the body at the base of the neck. From there it runs down the front of the spine and branches out to the neural plexus of the heart (cardiac plexus) and gut (celiac plexus). Recent research on afferent nerve stimulation proposes that the genitals (part of the pelvic plexus) might be a fourth area of vagal innervation. Komisaruk, et al., (2004) discovered that the vagus nerve might provide an alternate afferent pathway for communication between the genitals and brain under conditions in which the CNS is severed.

Like Porges, (1993, 1995) Zagon, (2001) also supports the vagal system as a means of "feeling" in the body. Zagon proposes that the vagus nerve, "the largest visceral sensory nerve in the body" (2001, p. 671) not only regulates emotion, perception and cognition, but also might mediate a "sixth sense." Based on the presumption that stress-related diseases in the body are regulated by the vagal activity, Zagon describes a process by which the vagus nerve connects emotion and cognition via sensorial symptoms, and suggests that a new neural pathway can be constructed at the tip of the vagus at the locus coeruleus (Fig 2), located in the brain stem.

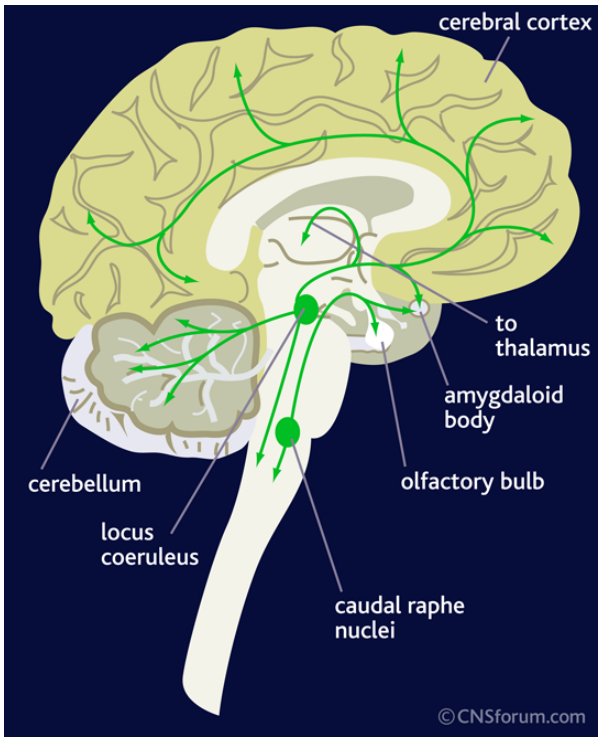


Figure 2: Locus Coeruleus
Note: From http://www.cnsforum.com/educationalresources/. Permission to reprint not required.

Zagon suggests that by manipulating the vagus nerve in the brain stem, one can shift a patient's perception of somatic symptoms, thereby altering emotional and mental experience of a physical condition. Zagon's study concludes by questioning whether the inter-related mental, emotional and physical experience is similar to an altered state of perceiving one's environment, or is a "sixth sense" that is the collaboration of physical, emotional and mental attention.

The Four Neural Plexuses of Embodied Intuition: Head, Heart, Gut and Pelvis

Studies have suggested that intuition resides on other parts of the body, namely the heart (McCraty, Atkinson, & Bradley, 2004) and gut, or enteric nervous system (Gershon, 1998). Both studies have found that areas in the body can perceive information separately from cognition. In physiology, there are afferent nerves, which travel from the viscera to the brain, and efferent nerves that travel from the brain to the viscera. Most body-based healing practices work with a "top-down" (Ogden, Minton & Payne, 2006) process that begins with thinking and proceeds to bodily-felt sensation for the purpose of using a thought as a first step toward integrating body and mind. In physiological terms, it's the efferent (brain to viscera) intervention that begins with thought followed by emotion and sensation. Conversely, "bottom up" process begins with sensation followed by emotion and cognition. Many trauma therapies (Levine, 1997; Ogden, Minton & Pain, 2006; Rothschild, 2001) work in both directions for the purpose of creating a fully integrated and embodied experience. Siegel, (2006) calls this "vertical integration" (p. 251).

The head

Lieberman (2000) creates connections between implicit learning and intuitive process based on experiments with two types of brain stem damage. The author suggests that the basal ganglia, which is part of the brain stem that governs implicit learning and instinct, is also the place that immediately precedes intuitive decision-making. Lieberman describes "social intuitions" as spontaneous physical gestures such as blinking, twitching, or cocking one's head to the side during a conversation. While observing learning and movement deficits of patients with two types of degenerative diseases in the basal ganglia, Parkinson's disease (PD), and Huntington's disease (HD), Lieberman observed that impairment in the basal ganglia inhibited spontaneous unconscious physical gestures. He concluded that difficulty in spontaneous movement also slowed decision-making in PD and HD patients. Lieberman's findings seem to support involuntary movement as a source of bodily-felt intuitive knowledge by making the connection between spontaneous movement and its role in decision-making.

The heart

Based on the hypothesis that the body can perceive and respond to emotionally stimulating information prior to conscious awareness, McCraty, Atkinson, & Bradley (2004) conducted a study to test the body's physiological system as a receptor of intuitive knowledge. The authors define intuition as "a process by which information normally outside the range of cognitive process is immediately sensed and perceived in the body and mind as certainty of knowledge or feeling about the totality of a thing distant or yet to happen,"(p. 134). Results were threefold: a) the heart appears to respond to stimuli preceding cognitive awareness b) the heart shows a greater response to future emotional stimuli than to future calm stimuli, c) women appear to have greater physiological response than men during an intuitive experience. The experiment was based on observations of the heart's electromagnetic field, and serves as a potential forerunner for testing other areas of the body to detect the body's perception and attention toward environmental stimuli, as well as to what degree it might feel about its environment.

The gut

Much debate persists over the ability of the gut, or enteric nervous system (ENS) to receive and respond to the environment without communicating with the brain. In his persuasive book, *The Second Brain* (1998), gastroenterologist Michael Gershon describes a history of studies dating back to the 19th century that support his hypothesis that the ENS can function independently from the brain. In a study by Bayliss & Starling (as cited in Gershon, 1998) the authors tested dogs by severing the ENS from two primary parts of the nervous system: the spinal cord and the vagus nerve. They found that the ENS continued to function fully despite the separation which altered common knowledge that the spinal cord and vagus nerve functions as a communicator between brain and internal organs of the heart and gut. Despite subsequent contradictory findings (Powley, 2000), Gershon's "second brain" persists as the common understanding of intestinal independence. Gershon's theory seems to metaphorically describe how one can have a "gut instinct" about something without cognitive reasoning to back it up.

The pelvis

Although there is no anatomical correlate to the vagus nerve and pelvic plexus stated in anatomical text, recent research in afferent vagal communication proposes that the genitals (part of the pelvic plexus) might be a fourth area of vagal innervation. Komisaruk, Whipple, Crawford, Grimes, Liu, Kalnin, & Mosier (2004) discovered the potential for vagal innervation of the genitals and pelvis while testing female subjects who claimed to be able to experience orgasm, despite having severed spinal cords.

Embodied Intuitive Decision-Making

In the field of neuroscience, much research on intuition focuses on the ways in which intuition is processed in the brain for decision-making (Bechara, Damasio, A., Damasio, H., & Anderson, 1994; Lieberman, 2000; Turnbull, 2003; Volz & von Cramon, 2006). From a psychobiological perspective, other researchers (Schore, 1994, 2003; Siegel, 1999, 2006) postulate that intuitive phenomena are interpersonal phenomena, resulting from empathic attunement between two people. It is suggested that intuition is the process of gathering information and responding to a situation completely spontaneously without any means of recognizing a pattern or ability to trace the origin of the information. The suggestion that intuition might be grounded in non-verbal communication, such as symbolic forms (images) and sub-symbolic forms, such as sensory, motor or visceral information systems of the body (Bucci, 2007), is an exciting proposition for both clinicians and researchers in body-based psychotherapeutic fields. Practices of embodiment might hold the key to intuitive recognition as it is still in symbolic form, rather than in the aftermath of cognitive processing.

Intuition in Psychotherapy

In the therapeutic session, the unconscious is ever-present even if it is not ready to be discussed. Williams & Irving (1996) state that "the belief that intuitive knowing is incapable of being verbally (and in cognitive terms) communicated is widespread in counseling" (p. 223). Contrasting with Williams & Irving's statement, Ignatow (2007) proposes that there is an evolving "intuitionist" style of psychotherapy steeped in Freudian thought of primary (instinctive) and secondary (conscious) process, and refers to the psychological shift from knowledge and reasoning toward an integrated style of bodily and emotional processing. Not surprisingly, Ignatow's description correlates with the *unconscious-to-conscious* intuitive process offered above by Vaughn (1979).

Psychology research has documented that the body "feels" intuitive experience (Charles, 2004; Eisengart, 1996; Pettimengen-Pettigrew, 1999). Charles (2004), in her study of intuition in psychotherapy, categorized participants based on

Jung's four psychological types: "Thinking, Feeling, Intuition, and Sensation" (p. 42). Charles found that Intuitive and Sensing types had greater body awareness than their counterparts during intuitive experience. In addition, Charles found that senses were important to intuitive experience because sensation was the only way that participants reported awareness. Ultimately Charles, like Williams & Irving (1996) dismissed the potential for sensorial knowledge, and despite sensorial findings, concluded that sensation accompanying intuition was nothing more than a reaction to a client's body language.

Vaughn (1979) defined four types of intuitive experience: "physical, emotional, mental, and spiritual" (p.40), and defined physical intuition as "a strong body response to a situation where there is no reason to think that anything unusual is going on" (p.66). Although I do not hypothesize that embodied intuition is limited to the physical, I suggest that recording sensation is the most pragmatic way to describe intuitive phenomenon.

In an attempt to create a cohesive model to describe the multi-faceted aspects of intuition in psychotherapy, Petitmengin-Peugeot (1999) conducted a study that set out to identify the extent to which intuition affects a therapist's "whole being" through sensorial and emotional experience. The author's findings were threefold: 1) insight into the physical or emotional state of another person; 2) feeling spontaneous "gestures" such as "'letting go,' 'slowing down,' and 'listening with a panoramic sense,'" and 3) "providing the solution to a problem that did not have all information for logical processing" (p.18). All three findings support the proposed study's exploration into embodied intuition in psychotherapeutic practice.

A Case for Body Psychotherapists

Somatic psychotherapy uses the identification of sensorial experience as a source of knowledge in the psychotherapeutic process, and recognizes the integration of the lived body, mind, and emotions as a measure of experience in healing. Due to the various ways in which the client subjectively experiences the therapeutic process, body psychotherapists must also use modes of attention during a therapy session that extend outside of training and experience, namely intuition. Arvidson (1997) describes intuition as a type of awareness. From a phenomenological perspective, he writes, "The most revealing way to respond to…a question like- 'What is intuition?' is to simply describe what is happening in consciousness when an intuition occurs" (p. 40). Both intuition and embodiment are inherently non-verbal human traits that have potential for clarity through verbal description. Some body psychotherapists have created a vocabulary to help their clients describe somatically-based experiences. Terms such as a "felt sense" (Gendlin, 1981, p. 2) is now commonly used in body psychotherapy. In trauma work, Peter Levine (1997) has created a list of descriptive words such as "fuzzy, jagged, made of glass, wood or plastic" (p. 80) when referring to the inside of the body, to help a client to make sense of sensations that do not inherently have names. This creates the possibility that vague, dissipated experiences of intuition can also adopt a descriptive vocabulary to make clear what is felt non-verbally.

Aposhyan, (2004) speaks to the empathic gaps that result from having an inadequacy of vocabulary for intuitive interventions in psychotherapy. In doing this, she creates an excellent argument for the urgency of this proposed study. In her theory of separating emotional projection from the "raw data" of intuition, Aposhyan writes:

> We have not cultivated the translation of nonverbal observations of others' bodily states into verbal consciousness. By not making this translation, we relegate this information to the realm of the subconscious, thereby losing access to the raw data and often mixing that data with emotional projection. This whole cocktail is called intuition. (p. 14)

Aposhyan's assessment speaks to the need to bring embodied intuitive recognition into consciousness and the importance of defining it separately from what is known as "Somatic Countertransference" (Bernstein, 1984), which Pallaro (2007) considers to be the therapist's own psychic material that is separate from the patient, but manifests as the "body memories, body['s] affective states and sensations" (p. 184) during sessions with clients.

Body psychotherapists focus not only on the client's body in practice, but their own body during therapeutic sessions (Field, 1989; Shaw, 2004; Stone, 2006). "Grounding and centering" (personal communication, D. Poole Heller, January 27, 2008) is one way that the therapist acts as a "container" for the client's experience. Oscillating attention between "narrow and panoramic vision" (C. Caldwell, personal communication, October 17, 2007) is another way that body psychotherapists engage in the multi-faceted aspects of the client's experience. As Stone (2006) reports, the therapist's body acts as a "tuning fork" (p. 109) to resonate with the client's experience.

A therapist's "tuning fork" can be used to connect with the client in many ways, such as instances of somatic countertransference (Dosamantes, 2007; Ogden, Minton & Pain, 2006; Pallaro, 2007; Stone, 2006). In contrast with intuitive knowledge, somatic countertransference is the therapist's somatically-based reaction to a client (Stone, 2006) that is in direct correlation to what is being transferred to the therapist emotionally by the client. Stone describes two types of counter-transference: "reflective" and "embodied" (Stone, 2006, p. 210). The former describes the way in which the therapist feels a reaction in his or her body that could reflect the way that others see the client in everyday life. "Embodied" refers to the instances when the therapist feels what the client is feeling so much that the therapist cannot differentiate their own feelings from that of their client, thereby causing a potential impasse in the healing process. In my own experience as a therapist, intuitive moments with clients in treatment produce clear somatic feeling, but clearly devoid of emotional content. Thereby, I

offer the possibility that somatic countertransference may be considered different from intuitive experience with clients based on the emotional quality that the former produces.

Dance therapy pioneer Mary Whitehouse often referred to working with the body as "directly working with the unconscious" (Whitehouse, 1977, p.4). Whitehouse makes a confident statement reflecting her use of intuition as a tool in psychotherapy practice: "Intuition tells one what to do and when to do it" (Whitehouse, 1979/1999, p. 87). As a dance/movement therapist, Whitehouse engendered a tremendous trust in working with the intuition that emerges between body and mind, both in her clients' bodies and her own. Of intuitive interventions, Whitehouse (1999) states:

> The presence of what one calls a hunch in everyday language indicates a possibility that may or may not work. By acting on the things that come up within, by trusting, it is found that the more they are trusted, the more strongly they come…It becomes not as logical a process but just as orderly; a different order than that of the controlling ego that grabs onto what it already knows. (p. 87)

There is no mistaking that intuition had been used successfully by Whitehouse in therapeutic practice. It is necessary to note that Whitehouse was not primarily a researcher, but a creator and practitioner of dance/movement therapy. This reflects back to the Jungian "types" of therapist (particularly "Sensing" and "Intuiting," as described by Charles, 2004) who is more likely to embody intuitive knowledge.

A body psychotherapist's work involves feeling from the non-verbal body to the verbal mind, and requires flexibility and courage to embrace that which is not known in a session. To use intuition as a tool in psychotherapy requires the use of what Hathaway (1956) calls, "inferences" that may be vague clues to what is actively present in the unconscious. "Intuition is involved either when the available information seems inadequate to produce the inferences drawn by the recipient or when the integrative powers of the percipient seem to exceed ordinary rational analysis" (p. 223). Perhaps the combination of body psychotherapists' holistic perspective and "integrative powers" best qualify them to investigate the inferences of intuitive phenomenon.

Conclusion

The connection between four neural correlates of corporeal metaphors in interpersonal communication is just the beginning of a potential basis for understanding our intuitive knowledge from an embodied epistemological perspective. Further research into the study of personal meaning made from attending "to" and attending "with" each of the four neural plexuses can potentiate expansion of this emerging theory. One way that this might be investigated is the personal physical experience (such as "tingling," "numbness," or even discomfort) of each of the areas of the therapist's body and the personal meaning that is ascribed to each, in relation to clients. Another future study might inquire into the kind of knowledge that the embodied experience that each area might produce, such as information about a client that could not be attained by deduction, diagnosis or pattern recognition. Finally, an investigation on the validity of that knowledge in relation to the client's experience might be helpful in attaining a clearer understanding of how embodied intuition works in clinical practice. Inquiries of intuition from an embodied perspective such as these might provide a firmer ground for the use of intuition in body psychotherapy practice. Studies that might delineate embodied intuitive experience from somatic countertransference; embodied intuitive decision-making in the therapeutic setting and circumstances under which embodied intuitive phenomenon is "wrong" may also contribute to our understanding of this seemingly untapped interpersonal phenomenon.

References

Adler, J. (1999). Who is the witness? A description of authentic movement. In P. Pallaro (Ed.) *Authentic Movement: Essays by Mary Starks Whitehouse, Janet Adler and Joan Chodorow* (pp.141-159).

Aposhyan, S. (2004). *Body-mind psychotherapy.* New York: W.W. Norton & Company

Arvidson, P.S. (1997). Looking intuit: A phenomenological exploration of intuition and attention. In R. Davis-Floyd & P.S. Arvidson (Eds), *Intuition: The inside story* (pp. 39-56). New York: Routledge.

Bechara, A., Damasio, A.R., Damasio, H., & Anderson, S. W. (1994). Insensitivity to future consequence following damage to human prefrontal cortex. *Cognition, 50*, 7-15. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1996-97430-001&site=ehost-live

Bernstein, P. L. (1984). The somatic countertransference: The inner *pas de deux*. In P.L. Bernstein, (Ed.) *Theoretical approaches in Dance/movement Therapy.(*Vol. 2). Dubuque, IA: Kendall Hunt.

Bucci, W. (2007). Beneath the surface of therapeutic interaction: Psychoanalytic method in modern dress. *Journal of the American Psychoanalytic Association, 55*, 1355-1397. doi: 10.1177/000306510705500412.

Charles, R. (2004). *Intuition in psychotherapy and counseling.* London: Whurr Publishers, Ltd.

Csordas, T. (1993). Somatic modes of attention. *Cultural Anthropology 8*(2), 135-156.

Di Pellegrino G, Fadiga L, Fogassi L, Gallese V, Rizzolatti G. (1992). Understanding motor events: a neurophysiological study. *Experimental Brain Research, 91*:176–80

Dosamantes-Beaudry, I. (2007). Somatic transference and countertransference in psychoanalytic intersubjective dance/movement therapy. *American Journal of Dance Therapy, 29*(2), 73-89 doi: 10.1007/s10465-007-9035-6

Eisengart, S. P. & Faiver, C. M. (1996). Intuition in mental health counseling. *Journal of Mental Health Counseling, 18*(1), 41-33. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=pbh&AN=11130&site=ehost-live

Field, N. (1989). Listening with the body: An exploration in the countertransference. *British Journal of Psychotherapy 5*(4), 512-522.

Gallese, V, (2003). Roots of empathy: The shared manifold hypothesis and the neural basis of intersubjectivity. *Psychopatology 36*, 171-180.
Gendlin, E. (1981). *Focusing*. New York: Bantam.
Goenka, S. N. (2009). Meditation now: Inner peace through inner wisdom. Onalaska, OR: Pariyatti Publishing.
Gershon, M. (1998). The second brain: A groundbreaking new understanding of nervous disorders of the stomach and intestine. New York: Harper Collins.
Hall, E. (1966). The hidden dimension. New York: Doubleday.
Hathaway, S. (1956). Clinical Intuition and inferential accuracy. *Journal of Personality, 24*(3), 223-250. Retrieved February 27, 2009, doi:10.1111/1467-6494.ep8932824
Hervey, L.W. (2007). Embodied ethical decision-making. *American Journal of Dance Therapy, 29*(2), 91-108.
Hole, (1987). Human Anatomy and physiology. Dubuque, IA: WCB Publishers, College Division.
Ignatow, G. (2008). Theories of embodied knowledge: New directions for cultural and cognitive sociology. *Journal for the Theory of Social Behavior 37*(2), 0021-8308.
Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. London: Delta.
Komisaruk, B.R, Whipple, B., Crawford, A., Grimes, S., Liu, W-C., Kalin, A., & Mosier, K. (2004). Brain activation during vaginocervical self-stimulation and orgasm in women with complete spinal cord injury: MRI evidence of mediation by the Vagus nerves. *Brain Research, 1024*, 77– 88.
Kurtz (2007). *Body-Centered Psychotherapy, The Hakomi Method***,** LifeRhythm.
Kurtz, R. (2010). The refined Hakomi Method: An overview retrieved from: http://hakomi.com/readings/articles/about-the-method/
Lehrer, J. (2009). *How we decide.* Houghton Mifflin Harcourt.
Levine, P., & Frederick, A. (1997). *Waking the tiger: Healing trauma through the innate capacity to transform overwhelming experiences.* Berkeley, CA: North Atlantic Books.
Lieberman, M. (2000). Intuition: A social cognitive neuroscience approach. *Psychological Bulletin, 126*(1), 129-137. doi: 10.1037//0033-2909.126.1.109
McCraty, R., Atkinson, A., & Bradley, R. T. (2004). Electrophysiological evidence of intuition, part I: The surprising role of the heart. *Journal of Alternative and Complimentary Medicine, 10*(1), 133-143. doi: 10.1089/107555304322849057
Merleau-Ponty, M. (2008). *Phenomenology of perception* (11th printing). New York: Routledge.
Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the body: A sensorimotor approach to psychotherapy*. New York: W. W. Norton.
Pallaro, P. (2007). Somatic countertransference: The therapist in relationship. In P. Pallaro, (Ed.) *Authentic movement: Moving the body, moving the self, being moved. A collection of Essays, Vol. 2, (*pp. 176-193). London: Jessica Kingsley
Petitmengin-Peugeot, C. (1999). The intuitive experience. *Journal of Consciousness Studies, 6*(2-3), 43-77. Retrieved from http://www.ingentaconnect.com
Porges, S. (1993). The infant's sixth sense: Awareness and regulation of bodily processes. *Zero to Three, 14*(2), 12-16.
Porges, S. (1995). Orienting in a defensive world. *Psychophysiology, 3*, 2301-318. Cambridge University Press.
Powley, T.L. (2000). Vagal input into the enteric nervous system. *GUT: An international journal of gastroenterology and hepatology*, 47(7), iv30-iv32.
Rizolatti, G & Craighero, L (2004). The mirror-neuron system. Annual Review of Neuroscience, 27:169–92. doi: 10.1146/annurev.neuro.27.070203.144230
Rothschild, B. (2000). *The body remembers: The psychophysiology of trauma and treatment.*
Sandel, S. (1993). The process of empathic reflection in dance therapy, in S. Sandel, S. Chaiklin, & A. Lohn (Eds.), *Foundations of Dance/Movement Therapy: The life and work of Marian Chace.* Columbia, MD: The Marion Chace Memorial Fund of the American Dance Therapy Association.
Schore, A. (1994). *Affect regulation and origins of the self: The neurobiology of emotional development.* Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
Schore, A. (2003). *Affect dysregulation and disorders of the self.* New York: W.W. Norton.
Siegel, D. (1999). *The developing mind: How relationships and the brain interact to shape who we are.* New York: Guilford Press.
Siegel, D. (2006). An interpersonal neurobiology approach to psychotherapy. *Psychiatric Annals, 36*(4), 248-256.
Stone, M. (2006). The analyst's body as tuning fork: Embodied resonance in countertransference. *Journal of Analytical Psychology, 51*(1), 109 – 124.
Turnbull, O. (2003). Emotion, false beliefs, and the neurobiology of intuition. In J. Corrigall & H. Wilkinson (Eds.), *Revolutionary connections; psychotherapy and neuroscience*. (pp.135-162). London: Karnac.
Vaughn, F. (1979). *Awakening intuition.* New York: Doubleday.
Volz, K., & von Cramon, D. (2006). What neuroscience can tell about intuitive processes in the context of perceptual discovery. *Journal of Cognitive Neuroscience, 18*(12), 2077-2087. doi: 10.1162/jocn.2006.18.12.2077
Weiss, H (2009). The use of mindfulness in psychodynamic and body oriented psychotherapy. *Body Mind and Dance in Psychotherapy 4(*1), 5-16.
Whitehouse, M.S. (1977). The transference and dance therapy. *American Journal of Dance Therapy, 1*(1), 3-7.
Whitehouse, M. S. (1999). The tao of the body. In Pallaro, P. (Ed.), *Authentic movement: essays by Mary Starks Whitehouse, Janet Adler, and Joan Chodorow.* (pp. 41-50). London: Jessica Kingsley.
Williams, D.I. and Irving, J.A. (1996). Intuition: A special kind of knowing? *Counselling Psychology Quarterly, 9* (3), 221-228. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=pbh&AN=9611215822&site=ehost-live
Zagon, A. (2001). Does the vagus nerve mediate the sixth sense? *Trends in Neurosciences, 24*(11), 671-673. doi:10.1016/S0166-2236(00)01929-9

Biography

Jennifer Frank Tantia, MS, BC-DMT, LCAT is a board-certified Dance/movement Therapist and licensed Creative Arts Therapist in New York City. Jennifer serves on the faculty of both Pratt Institute and Adelphi University, and is the Program Director of the NY State Chapter of the American Dance Therapy Association. Jennifer works with individuals in private practice and leads Authentic Movement groups while completing her Ph.D. in Clinical and Somatic Psychology at Santa Barbara Graduate Institute. Her dissertation topic explores the embodied experiences of therapists' intuition in the clinical setting. JFTantia@gmail.com

.

The USA Body Psychotherapy Journal
The Official Publication of the USABP

ADVERTISING INFORMATION
The USABP Journal accepts advertisements for books, conferences, training programs, etc. of possible interest to our members. Please contact usabp@usabp.org for more information.

VOLUME 10, NO. 1, 2011
Printed in the USA

CRITERIA FOR ACCEPTANCE
How does material in this manuscript inform the field and add to the body of knowledge? If it is a description of what we already know, is there some unique nugget or gem the reader can store away or hold onto? If it is a case study, is there a balance among the elements, i.e, back ground information, description of prescribed interventions and how they work, outcomes that add to our body of knowledge? If this is a reflective piece, does it tie together elements in the field to create a new perspective? Given that the field does not easily lend itself to controlled studies and statistics, if the manuscript submitted presents such, is the analysis forced or is it something other than it purports to be?

PURPOSE
This peer-reviewed journal seeks to support, promote and stimulate the exchange of ideas, scholarship and research within the field of body psychotherapy as well as an inter-disciplinary exchange with related fields of clinical practice and inquiry.

To ensure the confidentiality of any individuals who may be mentioned in case material, names and identifying information have been changed. It must be understood, however, that although articles must meet academic publishing guidelines, the accuracy or premises of articles printed does not necessarily represent the official beliefs of the USABP or its Board of Directors.

SUBMISSION GUIDELINES AND SPECIFICATIONS
First consideration will be given to articles of original theory, qualitative and quantitative research, experiential data, case studies, as well as comparative analyses and literature reviews. Submission of an article to the *USA Body Psychotherapy Journal* represents certification on the part of the author that it has not been published or submitted for publication elsewhere.

Initial submission should be e-mailed to jacarletonphd@gmail.com as an attachment in Microsoft Word.

Manuscript should be double-spaced in 10pt. type, Times New Roman font, with at least a one inch margin on all four sides-please include page numbers, otherwise manuscript should be free of other formatting.

Title, full authorship, **abstract of about 100 words and 3-5 key words precde the text.** Please include an endnote with author's degrees, training, mailing address, e-mail fax, acknowledgement of research support, etc.

Authors are responsible for preparing clearly written manuscripts free of errors in spelling, grammar, or punctuation. We recognize that the majority of contributors are not professional writers, nor do they function in a publish or perish mode. Furthermore, we are aware that the work of our profession is sometimes pragmatic, associative, intuitive, and difficult to structure. However, a professional journal such as we envision normally accepts only pieces that are fully edited. Therefore, we may occasionally suggest that writers find a reviewer to edit their work before it can be accepted. We will suggest names of possible editors if requested.

References: References within the text should include author's surname, publication date and page number.

Full attribution should be included in bibliography at end. *For books*: surname, first name, book title, place, publisher, date of publication. *For periodicals*: Surname, first name, title of article in quotes, name of publication, year, volume, and page numbers. Or, consult the latest edition of the Publication Manual of the American Psychological Association.

LETTERS TO THE EDITOR
The editors are eager to receive letters, particularly communications commenting on and debating works already published in the journal, but also suggestions and requests for additional features or departments. They may be sent to the email address below. A selection of those received will be published in the next volume of the journal.

CORRESPONDANCE ADDRESS

Jacqueline A. Carleton, Ph.D.
Editor
USA Body Psychotherapy Journal
115 East 92nd. Street #2A
New York, NY 10128
212.987.4969
jacarletonphd@gmail.com