

INTERSUBJECTIVITY AND THE PRACTICE OF ROLFING®

A Master's Project Submitted in Partial Fulfillment
of the Requirements for the Degree of Master of Arts
Specialty in Somatic Psychology

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June 2007

Abstract

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2007

It is well known that the therapeutic alliance (i.e., the collaborative relationship between patient and therapist) plays a major role in the outcome of therapy, even more so than technique. A primary component of this alliance is the emotional bond that is formed and the regulation of feelings between patient and therapist (Cozolino, 2006; Schore, 2003; Siegel, 1999; Stern, 2004). More recently, contemporary psychoanalysts have reinterpreted the transference-countertransference phenomena in therapy in terms of intersubjectivity (Stern, 2004). Although, we as Rolfers (Structural Integrators) attend to the physical nature of our clients, issues of transference and countertransference are present in our work with others.

In reviewing the various perspectives of intersubjectivity, it has become clear that Rolfing® practitioners need a more specific language to better understand the interactive processes we experience with our client. The practitioner must provide support, safety, containment, and titrate his intervention. When the client's issues are accessed, there is an opportunity for renegotiating dysregulated states within the therapeutic dyad whereby the practitioner resonates, attunes, and synchronizes with the client.

Although Rolfing® has primarily emphasized the need to work with a person's structural and neurofascial network, I chose to shed light on the more subtle aspects of the work – the therapeutic relationship, sensation, affect, imagery, and so on. I particularly wanted to emphasize what goes on within the intrasubjective world of the

practitioner as they conduct a session. My clinical and teaching experience has led me to understand that much of what brings about discomfort and pain within a Rolfing® session has most to do with the practitioner's inner state of mind-body. Obviously, this is how the aspects of transference/countertransference and intersubjectivity come into play when doing a somatically based work. I wanted to elicit, within each of the students, their inner resources where feelings of vitality, well being, and receptivity would come to the foreground when working with another. I believe that the practitioner of any healing modality *must be in touch* with their intrasubjective world first, before they are able to receive, understand, empathize, or resonate with another. If one is not working from their inner resources, practitioner burnout will most likely ensue.

Table of Contents

Abstract	3
Table of Contents	5
Review of Literature	6
Philosophical Perspective	9
Psychological Perspective	11
Neuroscience and Intersubjectivity	18
Attachment Theory and Affect Regulation	22
Closing Comments	31
Community Project	36
Retrospective	36
A Developmental Perspective of Touch	39
Affect Regulation and the Repair of the Self	42
What Rolfing® Offers	44
Psyche or Soma?	47
Practical Applications – What’s Unique About Rolfing®	49
Evaluation of the Project	50
Further Development and Conclusions	53
References	57

Literature Review

It is well known that the therapeutic alliance (i.e., the collaborative relationship between patient and therapist) plays a major role in the outcome of therapy, even more so than technique. A primary component of this alliance is the emotional bond that is formed and the regulation of feelings between patient and therapist (Cozolino, 2006; Schore, 2003; Siegel, 1999; Stern, 2004). “When different approaches to therapy are compared for effectiveness, the general agreement is that the perceived quality of the client-therapist relationship has the highest correlation with reported treatment success” (Cozolino, 2002, p. 51). More recently, contemporary psychoanalysts have reinterpreted the transference-countertransference phenomena in therapy in terms of intersubjectivity (Stern, 2004). Although, we as Rolfers (Structural Integrators) attend to the physical nature of our clients, issues of transference and countertransference are present in our work with others.

Dr. Rolf’s passion was human potential. In addition to improving posture and relieving chronic pain, she was intent on increasing vitality and feelings of wellbeing in her clients. Her unique vision continually informs us how genetics, trauma, habit, and culture shape the human form and that each person’s physical shape constitutes her personal somatic history and suffering (Rolf, 1977).

It is no wonder that she was invited to present her work at the Esalen Institute in Big Sur, California, along with other practitioners and researchers who were pushing the envelope of psychology. She did not want to teach her students to be physical

manipulators, but rather to be educators. The root origin of the word education is *educare*, which means to nourish and cause to grow (Montagu, 1973). In the 1960s and 1970s, Esalen was the laboratory for the human potential movement. Such greats as Fritz Perls (Gestalt Therapy), Will Schutz (Encounter Group Therapy), Charlotte Selver (Sensory Awareness), Alexander Lowen (Bioenergetics), were all making their contribution to realizing human potential. There are two premises that set Structural Integration apart from other healing systems: 1) The body is a plastic medium, and 2) Gravity is the therapist. Dr. Rolf was the first person to suggest that just as a body can be misshaped from habit and trauma, it can be reshaped with the skillful use of touch. She keenly observed that a somatization of one's negative experience shows itself as undifferentiated shape in human structure. Through differentiation of the bound myofascial tissues, a more efficient and authentic form can emerge. In the formative years of Rolfing®, it was not uncommon to hear such remarks from her clients as, "she has freed my soul"; "I was able to let go of my grief"; "The little things that used to stress me out no longer do" (E. Hutchins, personal communication, June 15, 1979).

In her book, *Ida Rolf Talks About Rolfing® and Physical Reality*, Dr. Rosemary Feitis (1978) quotes Dr. Rolf's introduction to Rolfing® for the *Psychotherapy Handbook*, which Rosemary Feitis describes, "as succinct and cagey":

Rolfing® is not primarily a psychotherapeutic approach to the problems of humans, but the effect it has had on the human psyche has been so noteworthy that many people insist on so regarding it. Rolfing® is an approach to the personality through the myofascial collagen components of the physical body. It

integrates and balances the so-called “other bodies” of man, metaphysically described as astral and etheric, now more modernly designated as psychological, emotional, mental, and spiritual aspects. The amazing psychological changes that appeared in Rolfed individuals were completely unexpected. They inevitably suggest that behavior on any level reflects directly the physical energy level initiating physical structure. The psychological effect is far greater than one would expect to induce in the brief encounter of ten hours of work, which is the normal cycle for Rolfing® integration. This effect can be understood if we see it as the emergence of a different behavior pattern resulting from the very much greater competence of physical myofascial organization. Rolfing® postulates on the basis of observation that a human is basically an energy field operating in the greater energy of the earth; particularly significant is that energy known as the gravitational field. As such, the individual’s smaller field can be enhanced or depleted in accordance with the spatial relations of the two fields. It would seem appropriate, at this point in time, to state that following Rolfing® a man’s greater awareness suggests to him that his energy has been increased. In fact, Rolfing® has simply freed his energy, made it possible to utilize his energy more efficiently. (pp. 26-27)

I want to argue that Dr. Rolf’s perspective was a relational one. Obviously, she referenced gravity as the therapist, but the process of guiding the client to a better relationship with the forces of gravity requires a relationship of Rolf practitioner and

client – intersubjectivity. Dr. Nicholas French (2007), Certified Advanced Rolfier and a Diplomate Jungian Analyst, states it this way:

Over the years I've been studying our work, I've come to believe that however well we apply the principles Dr. Rolf pioneered, in the end it is the client's trust and acceptance that permits her or him to open at a very deep level and allow real physical change to happen. If that is true, our effectiveness is intrinsically related to the quality of the practitioner-client relationship. Any way we can enhance our understanding of the total relationship is of immense importance. This is where psychology is valuable. (p. 39)

Although Dr. Rolf was the originator of structural integration, many other schools teaching her ideology have been established over the past twenty years. In their educational programs little, if any, attention is given to the intersubjective dynamics of transference-countertransference. For this reason, I believe the whole field of Structural Integration is in need of educating their students on the importance of knowing and understanding how to work within the relational field of intersubjectivity.

I will be reviewing the literature on intersubjectivity from four different perspectives. First I will discuss Martin Buber's (1970) philosophical contribution. Second, I will discuss the psychological perspective of transference-countertransference as it relates to intersubjectivity. Third, a neuroscientific view of intersubjectivity will be examined. And fourth, I discuss attachment and affect regulation theory as it pertains to our definition of intersubjectivity.

Philosophical Perspective

The term intersubjectivity refers in the most basic sense to the interaction between two subjects: myself and another person, or self and other (I/Thou). The study of consciousness within Western science and philosophy has been polarized between either - or investigations; either investigations of third-person (It), objective, correlates (e.g., cognitive and neuroscience) also known as third-person ontology, or investigations of first-person (I), subjective, experience and phenomena (e.g. introspection and meditation) also known as first-person ontology (Buber, 1970).

The second-person perspective (Thou) has mostly been overlooked in Western philosophy of mind except in the notion of intersubjectivity. Most notably, philosopher-theologian, Martin Buber (1878-1965) recognized that human beings have two responses for viewing the world. One can relate to what is present either as an object, an I-It relationship, or one can respond as another responsible being, as an I-Thou relationship. The essence of human being and existence is our relationship to each other and to the external world of objects, and Buber gave ontological status to liminal space, a mysterious force, creative milieu, or presence from which the experience of being a self arises. Buber (1970) states that:

Spirit is not in the I but between I and You. It is not like the blood that circulates in you but like the air in which you breathe. Man lives in the spirit when he is able to respond to his You. He is able to do that when he enters into this relation with his whole being. It is solely by virtue of his power to relate that man is able to live in the spirit. (p. 89)

Being intensely engaged in relationship with another person is one of the greatest joys of being human. Meeting, and being met by, another human being provides vitalizing effects. So why not have a theory of mind that shifts our perspective from looking at the world as a collection of objects, or even as a collection of subjects, to a view that sees relationship as fundamental and as the space where things happen?

Psychological Perspective

Although transferences and countertransferences manifest themselves in all relationships – personal, professional, and therapeutic – it is generally assumed that these terms are used to describe the psychoanalytic relationship of therapist and client.

Transference is the technical term used to describe an unconscious transfer of experiences such as thoughts, feelings, and attitudes, from one interpersonal situation to another.

Freud (1927/1972) suggested that the transferring of both thoughts and feelings could unconsciously occur between people and settings. He described transference as “new editions or facsimiles of impulses and phantasies” (Freud, 1923/1953, p. 82) originating in the past.

More recent contributions to the discussion of transference acknowledge that the therapist’s *real* characteristics always shape the nature of the transference (Hoffman, 1998; Renik, 1993). In other words, if a therapist is quiet and detached from the patient, a transference may develop to that therapist as removed, cold, and not interested in the patient’s process. “While the transference may stem in part from early attachments of

childhood, it is also influenced by the therapist's actual behavior. Hence, every relationship in the clinical setting is a mixture of a real relationship and transference phenomena" (Gabbard, 2000, p. 13). There are both positive and negative expressions of the transference. Strong feelings of attraction and love or rage and revulsion can be directed to another person because of earlier life conflicts. To the skilled psychotherapist, the transference represents therapeutic material to be understood.

Malan (1979) described countertransference as transference from therapist to patient or a corresponding response to transference. While transference is discussed and analyzed as part of the therapeutic process, countertransference is contained and monitored by the therapist. Freud initially mentioned the existence of countertransference (CT) in 1910 (Freud, 1910/1959) and since that time definitions have branched into three directions: First, Freud's classical definition focused on the analyst's unconscious and neurotic reactions to the patient's transference (Kernberg, 1965). Second, the totalistic definition includes all conscious and unconscious reactions the clinician has toward the client (Heimann, 1950). The third perspective (Gelso & Carter, 1985; Gelso & Hayes, 1998; Langs, 1974), which might be labeled the moderate perspective, maintains that CT represents the counselor's reactions to the client that are based on the counselor's unresolved conflicts (Hayes & Rosenberger, 2002).

The moderate definition is broader than Freud's classical view in that CT reactions are not solely viewed as a result of the client's transference. In fact, they are not always viewed as negative. Although there have been debates and musings about CT for over fifty years, there has been little research done on CT to support or refute its

theories. Recently, however, Hayes et al. (1998) reported the therapist's needs, family issues, cultural issues, and counseling-specific issues (e.g., termination) represented the most common sources of CT. They found that some CT reactions were provoked by more concrete stimuli, such as approaching termination, or the client experiencing death wishes, but in the majority of cases CT reactions were initiated by the therapist's subjective perception of the client as being similar to the counselor, or the therapist's concerns about how well the client was doing in the counseling. In other words, the therapist's phenomenological reality was the chief determinant regarding when and where CT reactions would be stimulated.

In field research conducted by McClure and Hodge (1987), they developed an approach for measuring CT that was grounded in the therapists' distorted perceptions of their clients. In the study, 12 counselors and 36 clients completed a personality survey measuring the counselor's perceptions of themselves, clients' perceptions of themselves, and counselors' perceptions of their clients. CT was identified when the counselors perceived the clients to be more like themselves than client profiles indicated and conversely, when the counselors perceived the clients to be less like themselves than was indicated by client profiles.

In using the measurement strategy, McClure and Hodge (1987) examined the relationship of CT and counselors' likes or dislikes of clients. Interestingly, when counselors had positive feelings toward their clients they tended to misperceive their clients as being similar to themselves. When counselors had negative feelings toward

their clients, they tended to misperceive their clients as being very dissimilar from themselves. What does this mean? Hayes & Rosenberger (2002) respond with:

An important theme emerging from this overall body of research is the empirical documentation of the various ways that CT may be manifested in counseling, particularly along cognitive, affective, and behavioral dimensions. In terms of cognitions, CT has been shown to take the form of distorted perceptions of clients, inaccurate recall of client material; reactive, defensive mental activity; blocked understanding; uncertainty; and changes in treatment planning. On an affective level, state anxiety has been the most commonly studied CT reaction in laboratory studies, and it has consistently served as a useful indicator of CT. Field studies, however, are beginning to demonstrate the wide range of possible emotions that could denote CT, including anger, sadness, boredom, and nurturing feelings. Behaviorally, CT has typically been operationalized as counselor avoidance or withdrawal, both in laboratory and in field studies. (p. 9)

In her book, *Modes of Therapeutic Action*, Martha Stark (1999) presents an integrative model of therapeutic action that takes into account many of the different schools of thought about the psychotherapeutic process that is healing. She holds that most psychotherapeutic models can be categorized into three distinct types of therapeutic action while advocating enhancement of knowledge, provision of experience, or engagement in relationship as the primary therapeutic agent. Each of these three models view issues of transference and countertransference in a slightly different fashion.

Classical psychoanalytic theorists conceive of the patient's psychopathology as deriving from within the patient's nature, in whom there is thought to be an imbalance of forces. This inner structural conflict is seen as the thrust of the work, and the goal of treatment is the strengthening of the ego by way of insight (Stark, 1999). "Interpretations, particularly of the transference, are considered the means by which self-awareness is expanded" (Stark, 1999, p. xvi). This earlier view of the talking cure emphasized the importance of the transference and is considered Model 1, a one-person psychology (subject/object), in Stark's three kinds of therapeutic action. Obviously, this first model represents a classical Freudian view, "because Freud never had any 'relationship' whatsoever with an analyst. His, of course, was a self-analysis" (p. xvi).

Many analysts, both here and abroad, were dissatisfied with a model of the mind that spoke only to the relationship of the patient's inner conflict of Id, Ego, and Superego. What about the relationship between patient and therapist? Stark elucidates Fairbairn contending that "the individual had an innate longing for object relations and that it was the relationship with the object and not the gratification of impulses that was the ultimate aim of libidinal striving" (p. xvi). Stark (1999) goes on to say:

Both the self-psychologists and the European (particularly the British) object relations theorists were interested not so much in nature (the nature of the child's drives) but in nurture (the quality of maternal care and the mutuality of fit between mother and child). (p. xvi)

With the emphasis on nurture, rather than nature, the therapeutic action shifted from an insight-oriented approach to a corrective experience by way of the real relationship

approach, also known as Model 2 within Stark's (1999) postulation. Freud's one-person psychology, emphasizing libidinal drive and aggression, was supplanted by more relational needs such as validation, soothing, admiration, and empathic recognition, to name a few (Stark, 1999; Stern, 2004).

Carl Rogers (1942), one of the pioneers of humanistic psychology, emerged with his client-centered therapy which was the antithesis of an analytic theory-based evaluation of the patient. Rogers believed that it was through warmth, empathy, acceptance, and unconditional positive regard that clients improve. In essence, Rogers' approach modeled good parenting. His emphasis on congruence between therapist and client foreshadowed the focus on empathic attunement in object relations and intersubjective forms of psychotherapy (Kohut, 1984; Stolorow & Atwood, 1979).

Rogers' perspective of the therapeutic relationship can be described in terms of Stark's Model 2 whereby the therapeutic emphasis is on empathy and corrective experience.

“When we say that the therapist provides the patient with a corrective experience, we are suggesting that the therapist offers the patient something that the patient should have received reliably and consistently as a child, but never did” (Stark, 1999, p. 17). In Model 2, the patient was seen as suffering from structural deficit – an impaired capacity to be a good parent unto himself. The therapist shapes his/herself into the good object for the patient, a corrective provision, the opportunity for a “new beginning” (Balint, 1968), a new relationship as a corrective for the old one.

The process by which the therapist provides being a good object for the patient requires the therapist to empathically attune to the affect the patient is experiencing. The

therapist must also enter deeply into the patient's affect so that the therapist can understand something about its meaning for the patient and/or its context (Stark, 1999). Empathy, as originally conceived (Kohut, 1971; Atwood and Stolorow, 1984), was thought to "involve the therapist's immersion in the patient's internal experience by way of the therapist's decentering—as best she could—from her own experience" (Stark, 1999, p. 51). In his earlier writings, Stolorow (1978), made reference to the clinician's need to decenter from his subjectivity in order to immerse himself empathically in the patient's subjectivity.

A skilled therapist shifts back and forth between responding interpretively (Model 1) and responding empathically (Model 2). How does a Model 3 therapist respond? Stark (1999) says it clearly, "whereas the empathic (Model 2) therapist decenters from her own experience, the authentic (Model 3) therapist remains very much centered within her own experience" (p. 46). The Model 2 therapist provides a kind of selflessness for the patient whereas the Model 3 therapist involves the use of self (her countertransference) by remaining very much centered within her own experience of self.

Stark goes on to say:

In sum, as an empathic selfobject, the therapist takes on the patient's experience only as if it were her own—but at least it is relatively uncontaminated by the therapist's subjectivity. Conversely, as an authentic subject, the therapist takes on the patient's experience as her own—but it is always contaminated by the therapist's subjectivity. (p. 47)

A more simple distinction would be that the therapist of a Model 2 action will become empathically attuned to the patient, and a Model 3 therapist, through her authenticity, will become engaged with the patient. This is more akin to Stolorow's coining of the term *intersubjectivity* in which he views the therapeutic relationship as involving two subjects (patient and therapist), not subject (patient) and selfobject (therapist). Stark (1999) describes Stolorow's later writings where:

...he conceives of the therapist's stance as involving a dialectical interplay between the therapist as an empathic selfobject (ever straining toward a prolonged empathic immersion in the patient's internal world) and as a co-participating subject (very much centered within herself and ever attuned to her own experience)—a dynamic tension between the therapist as decentered and the therapist as very much centered. (p. 54)

This is the Model 3 view of intersubjectivity where both therapist and patient bring their authentic selves into the relationship. There is an ever increasing number of contemporary theorists who believe that what heals the patient is neither insight (Model 1) nor a corrective experience (Model 2), but rather an interactive engagement (intersubjectivity) with an authentic other—the therapeutic relationship itself (Stark, 1999).

The psychodynamic theories of therapeutic change are based on the premise that the past plays a huge role in determining the present. Obviously, past events influence present moments, but the same attention to present experience has not held center stage in psychotherapy. It is the present where phenomenal, subjective experience exists and most

psychotherapies agree that therapeutic work in the here and now is where the greatest opportunity for change occurs (Stern, 2004).

How does a therapist find the balanced ground of meeting the client's subjectivity with their own subjectivity, whereby he does not fall prey to the oscillations between positive and negative affective states? The answer is in finding the right relationship through boundaries. "Boundaries, by definition are flexible, present centered and essential for a trusting relationship. Boundaries allow for openness and expansion of the self. Without boundaries, there can be no real relationship, only isolation or merger" (Rand, 2001, p. 1). Within an intersubjective perspective of therapy, one can postulate that the boundaries between self and other would be blurred, but in fact, they remain clear and permeable – "a differentiated self is a condition of intersubjectivity...without it there would be only fusion" (Stern, 2004, p. 77).

Neuroscience and Intersubjectivity

Most philosophical and psychoanalytic references to intersubjectivity have more to do with the explicit, conscious linguistic communication of one left brain to another left brain. A more embodied perspective of intersubjectivity has to do with an implicit, nonverbal communication of one right brain to another right brain as first experienced with our mother or primary caregiver (Schoore, 2003; Seigel, 1999). The language of mother and infant is nonconscious, and consists of signals produced by the autonomic, involuntary nervous system in both parties. This implicit view of intersubjectivity is what is most meaningful to me and will be explored more fully.

The psychoneurobiological model of emotional development embraces the early developing right brain perspective of intersubjectivity.

For the rest of the lifespan the right brain, which is more connected into the limbic than the later-developing left, is especially involved in unconscious activities and spontaneous emotional communication. Because this hemisphere is dominant for “subjective, emotional experiences” (Wittling & Roschmann, 1993) the interactive ‘transfer of affect’ between the right brains of the members of the mother-infant and therapeutic dyads is thus best described as *intersubjectivity* [italics added]. (Schore, 2003, p. 76)

Most of us construct our experience of the world around the notion of the isolated self – *I* do my job, *I* have these relationships, *I* make my own plans, etc. The brain, however, is not an isolated organ, “there are no single brains” (Cozolino, 2006, p. 6). As I discuss attachment theory and affect regulation in the next section of this paper, we will learn that our brains are organs of adaptation that build structures and connections through interaction with others. The developing brain is built within the interface between genetics and experience, and where nature and nurture overlap (Crabbe & Phillips, 2003; LeDoux, 2003; Schore, 2003).

In his book, *The Present Moment in Psychotherapy and Everyday Life*, Daniel Stern (2004) suggests that a special meeting, or connection, that takes place between two people is an intersubjective contact. Within this *intersubjective matrix* is a kind of mind-melding where each could say, “I know that you know that I know” or “I feel that you feel that I feel” (Stern, 2004, p. 75).

With the new discoveries in neuroscience as well as contemporary psychoanalysis moving away from the transference/countertansference model of therapy, “the center of gravity has shifted from the intrapsychic to the intersubjective” (Stern, 2004, p. 78). With this shift, the locus of the therapeutic environment is more interested in the moment-to-moment intersubjective matrix of therapist and client rather than the former one-person psychology that emphasizes the issues of the client’s past.

A neuroscientific definition of intersubjectivity would be incomplete without a discussion of mirror neurons. During the 1990s, four Italian scientists, Gallese, Fadiga, Fogassi, and Rizzolatti (1996), made the breakthrough discovery of mirror neurons in macaque monkeys. They found that neurons in the ventral premotor areas of the frontal lobes will fire anytime a monkey performs a complex action such as reaching for a peanut, pulling a lever, pushing a door, etc. Not only do these neurons control motor skills, but a subset of them will also fire when a monkey watches another monkey perform an action, what can be called “monkey see, monkey do” neurons (Cozolino, 2006, p.186).

Because it is not normally possible to study single neurons in the human brain, scientists cannot be certain that humans have mirror neurons. Brain imaging experiments, however, using functional magnetic resonance imaging (fMRI), transcranial magnetic stimulation (TMS), and electroencephalography (EEG), strongly suggest the presence of a human mirror neuronal system (Rizzolatti & Craighero, 2004). These studies have shown that humans respond in prefrontal regions, much as the macaque does, when a person performs an action and also when that person observes another individual

performing an action. “Because these neurons fire both when observing and performing a particular action, they have been dubbed *mirror neurons*.” (Cozolino, 2006, p. 187)

Mirror neurons sit adjacent to motor neurons and therefore allow the observer to directly participate in “another’s actions without having to imitate them” (Stern, 2004, p. 79). We can experience another *as if* we were performing the same action, feeling the same emotion, being touched as they are being touched (Damasio, 1999; Gallese, 2001). The neural hypothesis for the existence of a human mirror neuronal system provides a possible neurobiological explanation for the following phenomena: resonating with another’s emotional state; reading another person’s state of mind; experiencing what someone else is experiencing; capturing another’s action so that one can imitate it (Rizzolatti, G., Fadiga, L., Gallese, V., & Fogassi, L. (1996); Gallese & Goldman, 1998; Rizzolatti & Arbib, 1998; Rizzolatti, Fogassi, & Gallese, 2001). Stern (2004) suggests that mirror neurons provide evidence for an intersubjective matrix:

Clearly, the mirror neuron system may take us far into understanding (at the neural level) contagion, resonance, empathy, sympathy, identification, and intersubjectivity. At this point, the evidence for such a resonance system is solid for hand, mouth, face, vocal and foot actions. Some have stressed a potential role for mirror neurons in language acquisition. I believe that will prove a less interesting path than its importance for intersubjectivity in general. (p. 79)

Additionally, neuroscientist Ramachandran (2000) predicts that mirror neurons will do for psychology what DNA did for biology by providing a unifying framework for explaining empathy, resonance behavior, and theory of mind.

Attachment Theory and Affect Regulation

During the course of the “Decade of the Brain” (1990-2000), the fields of cognitive, social, and affective neuroscience experienced a growth spurt in knowledge, due in part to advances in brain-imaging technologies. The ability to not only theorize about brain development, but also to observe it during critical phases of infant development has revolutionized not only the aforementioned fields of neuroscience, but also psychobiology, psychophysiology, psychiatry, psychology, and the social sciences. I suggest that what best characterizes scientific advances made during the Decade of the Brain has to do with the acceleration of interdisciplinary research that has allowed for an integration of data from different fields of study, what Thomas Kuhn refers to as a paradigm shift (1996). Each of these fields is seeking to more deeply understand the human condition.

A common area of interest to researchers in the psychological, biological, medical, and social sciences, as well as to clinicians in psychiatry, psychology, and social work, has to do with affect regulation and dysregulation. As Schore (2003) states:

Affective processes appear to lie at the core of the self, and due to the intrinsic psychobiological nature of these bodily-based phenomena recent models of human development, from infancy throughout the lifespan, are moving towards brain-mind-body conceptualizations. These models are redefining the essential characteristics of what makes us uniquely human. (p. xiv)

I recall that in the 1970s, when I entered into self-exploration and personal growth, waking up and becoming conscious was the movement and focus of the times. Not so

today: “The self and personality, rather than consciousness, is the outstanding issue in neuroscience. So much of our behavior emerges from processes to which we have little conscious access” (Davidson, 2002, p. 268). The interest is more attentive to the nonconscious processes, beneath conscious awareness, where brain-mind-body operations occur automatically.

These nonconscious processes take place within the lower and central brain structures. These are referred to as the brain stem and limbic system respectively. The brain stem mediates basic elements of energy flow, arousal and alertness, and the body’s physiological state – temperature, respiration, and heart rate.

The limbic regions are thought to mediate emotion, motivation, and goal-directed behavior. Limbic structures permit the integration of a wide range of basic mental processes, such as the appraisal of meaning, the processing of social experience (called “social cognition”), and the regulation of emotion...Although each element contributes to the functioning of the whole, regions such as the limbic system, with extensive input and output pathways linking widely distributed areas in the brain, may be primarily responsible for integrating brain activity. (Siegel, 1999, pp. 10-11)

During the first two years of life, the infant’s right hemisphere develops at an accelerated rate, especially in the right orbito-frontal regions. It is here that there is a convergence of hypothalamic, limbic, amygdala, and temporal lobe structures. These regions process the implicit and affective information coming into the infant from both its inner and outer environments. At this stage of early life, the infant is relatively unable to

self-regulate and naturally seeks external regulation from its primary caregiver. The mother, or primary caregiver, must serve as an external affect regulator for the infant's arousal states (Schore, 2003). The role of the good enough mother is to provide affective attunement and resonance to her infant's highly aroused affective states of pleasure and joy; and conversely, the mother facilitates a down regulation of negative affective states. These hyper-aroused and hypo-aroused affective states of experience help shape the activity of the brain and the strength of neuronal connections throughout life.

The brain's development is an "experience-dependent" process, in which experience activates certain pathways in the brain, strengthening existing connections and creating new ones. Lack of experience can lead to cell death in a process called "pruning". This is sometimes called a "use-it-or-lose-it" principle of brain development. (Siegel, 1999, pp. 13-14)

Schore (2003) and Siegel (1999) concur that the regulation of emotion is the essence of self-organization. As Siegel says, "Lack of mental well-being may often be a result of emotion dysregulation" (p. 274). It is very clear to me that the dyadic relationship between mother and infant establishes the behaviors of autoregulation and socioemotional relationships for the developing infant. This right hemispheric implicit communication remains plastic throughout one's life span and "is dominant for the implicit cognitive processing of facial, prosodic, and bodily information embedded in emotional communications, for attention, for empathy, and for the human stress response" (Schore, 2003, p. xv). Just as the infant requires the mother to be its external regulator when distressed, we as adults need relationships that afford regulation (e.g.,

interactive repair) from our dysregulated states. It is within the therapeutic relationship that our need for interactive repair can be made possible. “The intuitive empathic therapist psychobiologically attunes to and resonates with the patient’s shifting affective state, thereby co-creating with the patient a context in which the clinician can act as a regulator of the patient’s physiology” (Schore, 2003, p. 48). These theoretical perspectives speak to my clinical experiences. It is through body-brain attunement with the client that I gather the most relevant information about what a client needs in order to find balance, connectedness, and a sense of wholeness. My success has everything to do with contacting the feeling, sensory, and emotional aspects of my client.

Over the past thirteen years, basic knowledge of brain structure and function has vastly expanded, and its incorporation into the developmental sciences is now allowing for more complex and heuristic models for human infancy. As such, the field of psychoneurobiology has emerged as a way of understanding the mechanisms that underlie infant mental health. Schore (2003) has detailed the neurobiology of a secure attachment, an exemplar of adaptive infant mental health, and has focused on the primary caregiver’s psychobiological regulation of the infant’s maturing limbic system, the brain areas specialized for adapting to a rapidly changing environment. Because the infant’s early developing right hemisphere has deep connections into the limbic and autonomic nervous systems and is dominant for the human stress response, the infant-mother (attachment) relationship facilitates the expansion of the child’s coping capacities. The attachment model suggests that adaptive mental health can be fundamentally defined as the earliest expression of flexible strategies for coping with the novelty and stress that is

part of human interactions. This efficient right brain function is a resilience factor for optimal development over the later stages of the life cycle.

Optimal development has mostly been addressed by the psychological sciences, but with the advances in brain research, developmental neuroscience is now in a position to offer more detailed and integrated psychoneurobiological models of normal and abnormal development.

Perhaps the most important scientist of the late twentieth century to apply an interdisciplinary perspective to the understanding of how early developmental processes influence adult mental health was John Bowlby (1969). Almost three decades ago he claimed that attachment theory can frame specific hypotheses that relate early family experiences to different forms of psychiatric disorders, including the neurophysiological changes that accompany these disturbances of mental health. Attachment theory has become the dominant theoretical model of development in contemporary psychology, psychoanalysis, and psychiatry. It is the most powerful current source of hypotheses about infant mental health. Bowlby (1969) inspired deeper explorations into how an immature organism can be shaped by its primary caregiver, usually the mother, through its attachment bond with her. In his view, developmental processes are the product of the interaction of genetic endowment with a particular “environment of adaptiveness, and especially of his interaction with the principal figure in that environment, namely his mother” (p. 180).

Bowlby (1969) concluded that the infant’s emerging social, psychological, and biological capacities cannot be understood apart from its relationship with the mother. He

observed that the mother-infant attachment is “accompanied by the strongest of feelings and emotions, happy or the reverse,” (p. 242), and that this interaction occurs within a context of “facial expression, posture, tone of voice, physiological changes, tempo of movement, and incipient action,” (p. 120), “that the instinctive behavior which constitutes attachment emerges from the co-constructed environment of evolutionary adaptiveness has consequences that are ‘vital to the survival of the species’” (p.137), and “that the infant’s ‘capacity to cope with stress’ is correlated with certain maternal behaviors” (p. 344).

These last two factors, adaptiveness and coping capacity, are obviously central components of infant mental health. In essence, Bowlby (1969), Schore (2004), and Siegel (1999) contend that attachment theory is a regulatory theory. Because regulation theory integrates both the biological and psychological realms, it can also be used to further models of normal and abnormal structure-function development, and therefore adaptive and maladaptive infant mental health. In attachment transactions the secure mother, at a non-conscious, intuitive level, is constantly regulating her baby’s shifting arousal levels and therefore emotional states. Damasio (1998) states it this way:

Emotions, and the experience of emotion, are the highest-order direct expression of bioregulation in complex organisms. Leave out emotion and you leave out the prospect of understanding bioregulation comprehensively, especially as it regards the relation between an organism and the most complex aspects of an environment: society and culture. (p. 84)

This psychobiological interaction between mother and infant is where the interface of nature and nurture occur. It is now known that our genetic potential (nature) can be realized through our environmental experience (nurture). During the shared moment with mother and infant “when mutual eye contact is established, both participants know that the loop between them has been closed...and this is the most potent of all social situations” (Schorer, 1994, p. 61). Face-to-face interactions, occurring at two months of age, are highly arousing, affect-laden, short interpersonal events that expose infants to high levels of cognitive and social information. In order to regulate these high positive arousals, mothers and infants synchronize the intensity of their affective behavior within lags of split seconds.

In physics, a property of resonance is sympathetic vibration, or the tendency of one system to enlarge and augment through matching the frequency pattern of another resonance system. In essence, when the mother-infant dyad is in resonance, the attuned mother’s role is to amplify, contain, and modulate her infant’s affective displays through differentiation and self-reflection of her own affective states. But the primary caregiver is not always attuned, and during these moments of misattunement, disruption of the attachment bond usually happens. According to Schorer (1994), it is at these times that the re-attuned, comforting mother and infant thus dyadically negotiate a stressful state transition of affect, cognition, and behavior. This recovery mechanism underlies the phenomenon of interactive repair, in which the mother is responsible for repairing stressful misattunements.

Emotions and their regulation are thus essential to the adaptive function of the brain, which is described by Damasio (1994):

The overall function of the brain is to be well informed about what goes on in the rest of the body, the body proper; about what goes on in itself; and about the environment surrounding the organism, so that suitable survivable accommodations can be achieved between the organism and the environment. (p. 90)

Bowlby hypothesized that the maturation of the attachment control system is open to influence by the particular environment (nurture) in which development occurs (1969). “Current neurobiological studies show that the mature orbitofrontal cortex acts in ‘the highest level of *control* of behavior, especially in relation to emotion’ (Price, Carmichael, & Drevets, 1996, p. 523) and plays a ‘particularly prominent role in the emotional modulation of experience’” (Mesulam, 1998, p. 1035 cited in Schore, 2003, p. 41). In particular, the orbital prefrontal areas are especially involved with attachment functions. This region acts as a convergence zone where cortex and subcortex meet. It is also closely associated with the limbic system, which is responsible for the rewarding-excitatory and aversive-inhibitory aspects of emotion; and to the hypothalamus, which is responsible for the autonomic nervous system (ANS), sympathetic, and parasympathetic responses. Because of its unique connections, processed information concerning the external environment (e.g., visual and auditory stimuli emanating from the emotional face of the object) is integrated with subcortically processed information regarding the visceral environment (e.g., changes in the emotional or bodily sensing state). In

particular, the early maturing right cortex is dominant for selectively attending to facial expressions, for the processing, expression, and regulation of emotional information.

One of Schore's (2003) major conclusions in his ongoing work on the regulation of feelings or affect regulation is that primitive mental states are more than early appearing mental or cognitive states of mind that mediate physiological processes. They are more characterized as psychobiological states, and therefore the therapist with a developmental framework is not exploring primitive states of mind, but primitive states of mind-body. The right brain is centrally involved in unconscious activities, and just as the left brain communicates its states to other left brains via conscious linguistic behaviors, the right brain nonverbally communicates its unconscious states to other right brains that are *tuned* to receive these communications. Freud asserted that, "it is a very remarkable thing that the unconscious of one human being can react upon that of another, *without passing through the conscious*" (Freud, 1915/1957, cited in Schore, 2003, p. 49). He also proposed that the therapist should "turn his own unconscious like a receptive organ towards the transmitting unconscious of the patient...so the doctor's unconscious is able...to reconstruct [the patient's] unconscious" (Schore, 2003, p. 49). He called this state of receptive readiness "evenly suspended attention." Schore goes on to say,

Studies of empathic processes between the "intuitive" attuned mother and her infant demonstrate that this affective *synchrony* is entirely nonverbal and that resonance is not so much with his mental (cognitive) states as with his psychobiological (affective-bodily) states. Similarly, the intuitive empathic therapist psychobiologically attunes to and resonates with the patient's shifting

affective state, thereby co-creating with the patient a context in which the clinician can act as a regulator of the patient's physiology. (p. 48)

In other words, the energy expending sympathetic and energy conserving parasympathetic components of the ANS regulate somatic aspects of not only stress responses, but emotional states. The ANS has been called the “physiological bottom of the mind” (Jackson, 1931, cited by Schore, 2003, p. 44). This adaptive function is stressed by Porges (1997):

Emotion depends on the communication between the autonomic nervous system and the brain; visceral afferents convey information on physiological state to the brain and are critical to the sensory or psychological experience of emotion, and cranial nerves and the sympathetic nervous system are outputs from the brain that provide somatomotor and visceromotor control of the expression of emotion. (p. 65)

Closing Comments

How does the practice of Rolfing® fit within the philosophical, psychological, neuroscientific, attachment, and affect regulation perspectives of intersubjectivity? Stern (2004) makes a distinction between the explicit and implicit agenda. He describes the explicit agenda as the verbal content of the session; in talking therapies, the agenda is what the client talks about – the past, future, dreams, fantasies, and problems. In somatic therapies, I suggest, the agenda is what the client describes as bodily aches, pains, imperfections, injuries, and traumas. In a psychotherapeutic model the search is for meaning; in somatically based work, the search is for relief of physical symptoms.

Simply stated, the explicit agenda contains the narrative of the session while the implicit agenda is seen as the context of the session; the place where the regulation of the therapeutic alliance is foreground. Within this agenda are issues of transference and countertransference, safety, containment, holding environment, and the “real” relationship. Stern (2004) says that:

The regulation of the immediate intersubjective field is the aspect of the implicit agenda that most interests us. The implicit agenda is fundamental in the sense that it contextualizes the explicit agenda. It constrains it and determines what can be talked about. (p. 120)

The regulation of the intersubjective field requires the therapist to use his body as the container. Furthermore, Dosamantes (1992) says “physical containment by the therapist of the patient’s disavowed experience needs to *precede* its verbal processing” (p. 362). As Damasio (1999), Schore (2003), Siegel (1999), and Stern (2004) have suggested, the regulation of one’s affect is at the heart of human development. In Schore’s (1994) writing on the psychophysiology of countertransference, he “points out that countertransference dynamics are appraised by the therapist’s observations of his own visceral reactions to the patient’s material” (p. 451).

My clinical experience supports Smith’s (1985) ideas that in body-oriented therapies transference and countertransference phenomena occur “sooner and sometimes more powerfully or dramatically” (p. 151), than in strictly talking therapies. I also agree with his assertion that in non-psychotherapy body-work, practices such as Rolfing®, Feldenkrais, Alexander Technique, Tai Chi Chuan, Yoga, and Aikido are all valuable

pathways to personal growth. “What these methods can do is greatly enhance body awareness, increase the options of aliveness in the body, and change old body habits which are dysfunctional” (Smith, 1985, p. 152). I do find Smith rather dogmatic, however, in his perspective that what these methods fail to do is “provide directly for the symbolic processing of previously blocked or inhibited emotion. . .*It is this emotional energy processing which is at the core of body-oriented psychotherapy*” (p. 152). I would agree with this assessment if the somatic practitioner avoided his or her own pains and fears by the mechanical application of body techniques only. This is not an I-Thou, *person to person* approach, but rather an I-It, *person to object* relationship. The willingness of the Rolf practitioner to empathically attune to and somatically process the client’s physical suffering can lead to valuable insight, knowing, and understanding for the client. I am not suggesting that good bodywork is a substitution for good psychotherapy, but rather that a somatic practitioner that is working within an intersubjective context can greatly facilitate regulation of the client’s affect resulting in an intrapsychic balance and feelings of well being. Many of my clients have participated in or are presently involved in psychotherapy. Each client expresses an appreciation for our therapeutic alliance whereby they: increase their body awareness and aliveness, change old bodily habits, resolve traumatic injury, **and** make interconnections between their thoughts, images, feelings, and emotions. Citing Jackson, Neafsey (1990) concluded, “The key to understanding the cerebral cortex, then, appears to be the body” (p. 147).

The consideration about the division between psychoanalytic therapies and the body, movement, and expressive therapies supports Descartes' error, "the separation of the most refined operations of mind from the structure and operation of a biological organism" (Damasio, 1994, p. 250). The comprehensive understanding of the human mind requires an organismic perspective; one that views the body, the brain, and the mind as contained within a whole organism and fully interactive with a physical and social environment. Theoretical discussions about what kind of therapeutic intervention, a psychotherapeutic or a somatically based one, best accesses the unconscious self is best expressed by Stern (2004):

At this point in time, no one can claim a royal road to the unconscious. The dream, free association, the present moment, body sensations or expression, and actions are all, if not royal, still good enough routes into the mind, including the unconscious and the implicit. (p. 147)

My intent in reviewing the aforementioned perspectives of intersubjectivity has been to provide a language to the Rolfing® practitioner, to better understand the interactive processes we experience with our clients. The practitioner must provide support, safety, containment, and titrate his intervention. When the client's issues are accessed, there is an opportunity for renegotiation of the dysregulated states within the therapeutic dyad whereby the practitioner resonates, attunes, and synchronizes with the client.

What else must a practitioner do to successfully negotiate these deep processes? I find Schore (2003) most succinct:

Our own ability to “enter into the other’s feeling state” depends upon our capacity to tolerate varying intensities and durations of countertransferential states marked by discrete positive affects, such as joy and excitement, and negative affects, such as shame, disgust, and terror. This range of our affect tolerance is very much a product of our own unique history of early indelibly imprinted emotionally-charged attachment dialogues, since it is these primordial interactive experiences that profoundly influence the origin of the self. For this reason, I believe personal psychotherapy is a prerequisite for anyone entering the field. (p. 56)

How does a somatic therapist integrate the psychological aspects of self? John Conger (2005) quotes Jung beautifully:

The part of the unconscious which is designated as the subtle body becomes more and more identical with the functioning of the body, and therefore it grows darker and darker and ends in the utter darkness of matter; that aspect of the unconscious is exceedingly incomprehensible...one must include not only the shadow—the psychological unconscious—but also the physiological unconscious, the so-called somatic unconscious which is the subtle body. You see, somewhere our unconscious becomes material, because the body is the living unit, and our conscious and our unconscious are embedded in it; they contact the body. Somewhere there is a place where the two ends meet...and that is the place where one cannot say whether it is matter or what one calls “psyche”. (p. xxiii)

Community Project

My Community Project encompasses three aspects. First, I present a retrospective of a three-day Rolf Institute® Continuing Education approved workshop that I taught in May 2006 to a group of eight Rolfers. Since the presentation of my workshop, I have gathered feedback from a number of the participants. Second, I present the evaluation of my project. And third, I present a future development of my workshop experience with a description and outline for a half-day workshop that I am presenting at the 2007 Somatic Experiencing® Conference entitled “Life Energy and the Emergent Therapeutic Paradigm – A Balanced Approach to Body, Brain, & Mind” from October 24-26 at the Claremont Resort & Spa in Berkeley, CA. The sponsors for this conference are the Foundation for Human Enrichment, a nonprofit educational and research organization dedicated to the worldwide healing and prevention of trauma, and The Meadows, a treatment center for trauma and addictions located in Wickenburg, AZ. The featured presenters for this conference are some of the leading authorities in the trauma field: Peter Levine, Ph.D., Bessel van der Kolk, M.D., Stephen Porges, Ph.D., Robert Scaer, M.D., and others.

Retrospective

Last year, from May 12-14, 2006, I presented a continuing education approved workshop for eight of my Rolfing® colleagues entitled “Working on the Edge – When is it Too Much, When is it Too Little?” in Santa Fe, NM. The purpose of this workshop was to explore, both theoretically and practically, how the right amount of a direct, clear, and

vital touch can facilitate shape change, transformation, increased vitality, and feelings of well-being for our clients AND ourselves as practitioners.

I chose these aspects of the Rolfing® work to explore because the general public, when hearing the name Rolfing®, often uses the following descriptions: “excruciatingly painful”; “pulling the muscle from the bone”; “torturous”; “painful deep massage”, etc. As mentioned early on in my literature review, Dr. Rolf was most interested in increasing vitality and feelings of wellbeing, **not** presenting an arduous, painful process to bring about changes in human structure. I wanted this workshop to provide an opportunity for a group of my colleagues and I to explore how varying qualities of touch, presence, awareness, and mindfulness could bring about profound changes in resolving suffering in the other without causing such discomfort in our clients.

Although Rolfing® has primarily emphasized the need to work with a person’s structural and neurofascial network, I chose to shed light on the more subtle aspects of the work such as the therapeutic relationship, sensation, affect, and imagery. I particularly wanted to emphasize what goes on within the intrasubjective world of the practitioner as she conducts a session. My clinical and teaching experience has led me to understand that much of what brings about discomfort and pain within a Rolfing® session primarily has to do with the practitioner’s inner state of mind-body. Obviously, this is how the aspects of transference/countertransference and intersubjectivity come into play when doing somatically based work. I wanted to elicit, within each of the students, their inner resources where feelings of vitality, wellbeing, and receptivity would come to the foreground when working with another person. I believe that the practitioner of any

healing modality *must be in touch* with her intrasubjective world first, before she is able to receive, understand, empathize, or resonate with another person. If one is not working from her inner resources, practitioner burnout will most likely ensue.

Within my workshop blurb I stated that participants would learn the following:

- 1) See and understand shape.
- 2) Work with power, not force.
- 3) Identify and work with autonomic nervous system responses to intervention.
- 4) Strategize treatment plan for working with states of hyperarousal and dissociation.

Even though I created a workshop outline, the educational needs of the students always determine the direction of the workshop. Fortunately, each of the students expressed personal learning needs that fit with my original agenda. Following is a list of the educational needs expressed by the students:

- 1) “I find myself working too hard and end up compromising my own body while doing the work.”
- 2) “I received an injury to my right hand while closing my car door and desire to find a way of working so that my hand can continue to heal.”
- 3) “I want to discover a way to listen more clearly to my client’s bodily needs for the work.”
- 4) “No matter what client I am working with I am aware of a chronic tension within them as well as myself.”
- 5) “Every client I work with brings in her stuff – what do I do with this? – my Rolfing® training didn’t teach me how to work with the client’s psycho-emotional needs.”

6) “I desire to find my inner form so that I can hold a therapeutic environment that allows my client to find hers.”

7) “I was in a motor vehicle accident two years ago and sustained an impact injury to my whole left side and therefore cannot find a way of coming through that part of myself when doing the work.”

8) “I had a right shoulder surgery six months ago and consequently have discovered that I am working with too much force and not enough power.”

A developmental perspective of touch

In order to more fully understand the importance of intersubjectivity within the context of Rolfing®, it is first necessary to discuss a developmental perspective of touch from a theoretical background. We begin our understanding of this background with a discussion about the central nervous system and its development. According to Montagu (1971):

The central nervous system, which has a principal function keeping the organism informed of what is going on outside it, develops as the in-turned portion of the general surface of the embryonic body. The rest of the surface covering, after the differentiation of the brain, spinal cord, and all the other parts of the central nervous system, becomes the skin and its derivatives—hair, nail, and teeth. The nervous system is, then, a buried part of the skin, or alternatively the skin may be regarded as an exposed portion of the nervous system...As the most ancient and largest sense organ of the body, the skin enables the organism to learn about its environment. It is the medium, in all its differentiated parts, by which the external world is perceived. The face and the hand as ‘sense organs’ not only convey to the brain a knowledge of

the environment, but convey to the environment certain information about the internal nervous system. (p. 5)

The ability to touch and have a physical response, such as touching something and it feels hot, for instance, is inextricably linked to the development of the nervous system. Touch is our first sense; it is expressed within the first 6 weeks of embryonic life. As such, Montagu (1971) discusses the interdigitation among emotion, feeling, affect, and touch.

Emotion, feeling, affect, and touch are scarcely separable from one another.

Emotions, even when not induced by touch, frequently have a tactile quality about them. As commonly understood, feeling refers to the sensations arising spontaneously within the organism as a whole. One *feels* well or not. The state is an affective one. The larger part of what we call *feeling* appears to be made up of perceptions of complex blends of tactile components drawn mainly from the skin, but also from joint, muscle, and visceral senses. What is clearly necessary for the development of human feeling is the satisfaction of the sensory needs, the proprioceptive-vestibular functions, and the visual senses. Situated in the brainstem immediately above the spinal cord and extending upward is the reticular formation, which is largely involved in changes in level of consciousness, and is therefore often called the reticular activating or arousal system. It is extremely complex and little understood, but what is known is, that among other things, it is particularly sensitive to tactile stimuli. When we are unexpectedly touched, for example, there is a perceptible increase in the level of

alertness, we are activated, aroused. Tactile stimulation plays an important role in influencing emotional tone and attention span. (p. 288)

Because of the human hand's unique ability to touch and feel, "the philosopher Immanuel Kant (1724-1804) called the hand the human outer brain, and psychologist G. Revesz noted that the hand is frequently more intelligent and endowed with greater creative energy than the head" (Montagu, 1971, p. 127).

Montagu's (1971) statement that "*emotion, feeling, and touch* are scarcely separable from one another" (p.288) caused quite a stir of emotional activation among the participants. In order to quell the uneasy feelings in the group I suggested that everyone put their note pads and pens down and find a comfortable place in the classroom to sit, stand, or lie down. I then asked them to close their eyes and take an inner inventory of what they were feeling, sensing, imagining, imaging, desiring to do, etc. Some of the students stayed seated in their chairs while others chose to migrate to a far corner of the room and lie down while their process continued. Periodically I would make Sensory Awareness suggestions such as: "Just notice your breathing"; "Notice what part or parts of your body are most comfortable right now"; "Are you experiencing warm or cold sensations just now?"; "How is your heart beating"? I allowed this process to go on for 15 – 20 minutes. I then asked the students to come back to the group circle and invited anyone that wished to share their experience to do so with the group. The first person that spoke shared that she experienced much anxiety while reading what Montagu had said about the relationship of touch to feeling and emotion. Her increased heart rate and anxious state was greatly reduced when she was invited to spend some time with her inner sense of self. Another student reported feelings of

insecurity and wondering if she belonged in this group of experienced practitioners since she had only been practicing for two years. Others reported awe in realizing that just in the verbal discussion of the wide-ranging effects of touch that such profound nervous system activation could occur.

This group experience set the stage for me to discuss what is most exciting for me about the Rolfing® process; that in addition to bodily sensations, feelings and emotions are present when we engage with our clients' structural and neurofascial networks. I discussed the need for us to be keenly aware of our inner processes such that we can become psychoneurobiological regulators for our clients' dysregulation. In essence, there is a need to facilitate affect regulation within ourselves as well as our clients.

Affect regulation and the repair of the self

While my argument focuses on the linkage between mind and body, it has been necessary to take apart this connection and look at the key components. I identify the five primary components to be Affect Regulation and Emotional States, Neuropsychology and Neurobiology, Body and Brain, Infant Development, and Psychobiology. A more in depth discussion of these components has been covered in the Review of Literature section of this thesis.

“The human attempt to regulate affect focuses on minimizing unpleasant feelings and maximizing pleasant ones, and is one of the driving forces in human motivation” (Westen, 1997, p. 542). Our emotional processes lie at the foundation of

a model of instinctive behavior. According to Bowlby (1969), one of the pressing issues in psychology is the need for a solid, well-founded theory of human instincts.

Next, we discussed neuropsychological and neurobiological data. These data suggest that the right brain is involved in the maintenance of a coherent, continuous, and unified implicit sense of self (Schore, 2003). The ANS is considered to be the somatic component of all emotional states and is controlled by the right hemisphere. Arousal firing of the neuronal network contributes to an orienting response, the setting of a motivational state, and the onset of exploratory behavior. (This is the upper pole). The right hemisphere is centrally involved in the analysis of direct information received by the subject from his own body and is connected with direct sensation rather than with verbally logical codes.

In discussing the body-brain connection, we turn to Dr. Rolf (1977) who reminds us that the body is malleable. Schore (2003) put forward that the adult brain retains its plasticity, especially in the right brain, which is dominant for self-regulation, and allows for emotional learning that accompanies successful therapy.

The next aspect of this discussion focused on understanding the importance of infant development. The infant's immature internal homeostatic systems are interactively regulated by the caregiver's more mature nervous system. The caregiver is the external psychobiological regulator for the infant. The language between the mother and the infant consists of signals produced by the autonomic, involuntary nervous system in both parties. Human feelings are conveyed through body language such as "facial expressions,

posture, tone of voice, physiological changes, tempo of movement, and incipient action” (Bowlby, 1969, p. 120).

Discussions surrounding infant development often lead to psychobiological components of affect regulation. The infant’s psychobiological response to trauma, for example, is comprised of two separate response patterns. The first pattern is known as hyperarousal, or a startle response (e.g., scared stiff). This type of response results in the activation of the sympathetic system and has a heightened affect. The second type of response is dissociation in which the child disengages from stimuli and stares into space, avoids interaction, and exhibits a restricted affect. The parasympathetic system is dominant with a hypotonic structure.

The discussion above can inform the various processes that come about when the practitioner is with the client. The psychobiologically attuned therapist has an opportunity to act as an interactive affect regulator of the patient’s dysregulated state. The therapist must be aware of his own physical, emotional, and ideational responses to the patient’s veiled messages. This type of awareness requires that the therapist can effectively deal with positive and negative countertransferential affective states. In this situation, empathic communication by the therapist is not voluntary, therapist is not doing something as much as learning to be with the patient by not matching or imitating overt behavior, but instead by resonating with the external expressions of the patient’s inner states. It is a situation of watch, wait, and wonder.

What Rolfing® offers

Most Rolfing® workshops and trainings offer the students new techniques and approaches to achieve the goals of Rolfing®. My experience, both as student and teacher, has been that with a focus on technique, the practitioner most often loses touch with her inner senses and awareness. This is not to say that developing skillful and competent diagnosis and treatment strategy with technique is not important for the practitioner, but

rather that was is most often overlooked is the intersubjective relationship of Rolfer and client. I hold a premise in my clinical work that a client's "inner healing resources" will do their work if I establish the right therapeutic relationship. I use my psychoneurobiological responses when in relationship with another to guide me in the *tempo, rhythm, and techniques* chosen for the session. In order to support this view, I shared a Biodynamic Craniosacral Therapy perspective of somatic therapy where the practitioner does not look for illness, disease, or some imperfection with the client, but instead looks for, supports, and amplifies the client's inner Health. A synonym for Health could be inner resources, vitality, wholeness, for example. In other words, each of us contains Health and it is a variable. I recalled Dr. Andrew Weil's talk at an annual Rolwing® Conference in the 1980's where he referred to health as a temporary state of equilibrium. Ah, a temporary state of equilibrium. Is the autonomic nervous system an expression of this variable state of equilibrium? I think so! Skillful Rolwing® work can access the deep reservoirs of inner resources and Health.

Another principle that the Biodynamic Craniosacral work holds is that when a client feels listened too, supported, and safe, an inherent treatment plan will present itself from within the client. The practitioner who is skilled in listening and attuning to the client may hear an inner voice that interprets the nonconscious messages transmitted from the client. Such implicit messages from the client may be, "Just hold my feet, so that I may..."; "I need you to work deeply in my neck region so that I may..."; "Don't come any closer, I need you to stay right there..."; "Can you help me discharge my sadness (or rage)-I feel stuck"; and so on. Sometimes there is no "inner voice" heard, just feelings

and sensations moving within the therapist that guide the session. And then again, there are times that the Rolfer is not receiving clear messages as to what to do. When this happens, it is best to stay with the not knowing until some direction is clearly invited to happen. I emphasized the pause here, the willingness to not know just now, what it is I am to do with my client. This knowing is akin to breathing; there is a pause at the end of an inhalation, before the exhalation, and a pause at the end of the exhalation, before another inhalation.

In most Rolfing® classes, the student receiving work is wearing only her underwear. This is certainly helpful in facilitating body reading, where distinctions are made as to various muscle tone, structural imbalances, spinal deformities, and other visible factors. Additionally, the student provides a learning lab for the other students to learn about treatment strategy and the application of unique techniques that are necessary to bring about a change in body structure. However, I requested that the students not get undressed but rather learn to sense, listen to, and embrace their fellow student/client without the critical eyes that are so often required in perceiving only the human structure. I encouraged the students to pay attention to what qualities they were sensing within themselves as they were preparing to give a session to another. I reminded the students to notice what each individual was feeling, sensing, wanting to emote, thinking, and imagining.

In many ways, I think the early paradigm of Rolfing® work was similar to the Freudian subject/object perspective. In this model, the Rolfer is the expert, all knowing, all empowering, authority that will provide the client with what he or she deems

necessary to achieve the goals of Rolfing®. But where is the interaction, the relational field, of meeting and being met by the other to mutually inform the context of the session? The answer to this question is beautifully presented in Dr. Daniel Stern's (2004) book, *The Present Moment in Psychotherapy and Everyday Life*, where he makes a distinction between the explicit and implicit agenda. He describes the explicit agenda as the verbal content of the session; in "talking therapies" it is what the client talks about – the past, future, dreams, fantasies, and problems. In somatic therapies, I suggest it is what the client is describing as bodily aches, pains, imperfections, injuries, traumas, for example. The search is for meaning, which is co-constructed by therapist and client. This would also include the goals of the session that the practitioner and client desire in a somatically based approach. Simply stated, the explicit agenda contains the narrative of the session. The implicit agenda is seen as the context of the session; the place where the regulation of the therapeutic alliance is foreground. Within this agenda are issues of transference/countertransference, safety, containment, holding environment, and the "real" relationship. Stern (2004) says that "the regulation of the immediate intersubjective field is the aspect of the implicit agenda that most interests us." (p. 120)

Psyche or Soma?

Since the Decade of the Brain, the self and personality, rather than consciousness, is at the forefront in the social sciences. Scientific advances have allowed more accurate brain imaging to take place. What we now see is that psychological and biological merging is understood through research of the right brain. "And it seems that psychology has been in danger of becoming body-phobic.

We forget the foundations. Our elevator doesn't go all the way to the bottom floor. Nevertheless, in recent years, psychoanalysts have awakened to the bodies in the room and are writing about it" (Conger, 2005, p. xix). In this vein, Conger (2005) quotes Jung emphasizing the importance of the body:

It has forever been the aspiration of mankind to fly like a bird, to become a wind, a breath; and it can be done, but it is paid for by the loss of the body, or the loss of humanity, which is the same thing.... We cannot get rid of ourselves; we carry our body, and our shadow and everything else is as it always has been. We can only hope to become balanced between light and shadow.... The body is the original animal condition; we are all animals in the body, and so we should have animal psychology in order to be able to live in it... Since we have a body it is indispensable that we exist also as an animal, and each time we invent a new increase of consciousness we have to put a new link in the chain that binds us to the animal, till finally it will become so long that the complications will surely ensue. This figure of the chain is not my own invention. I found it the other day in a book by an old Alchemist doctor, as the so-called symbol of Avicenna; ... This one consists of an eagle flying high in the air, and from his body falls a chain which is attached to a toad creeping along on the earth. (pp. xix-xx)

It is important for us to remember that within the deep structure of the body, shifts in form and psyche occur.

The part of the unconscious which is designated as the subtle body becomes more and more identical with the functioning of the body, and therefore it grows darker

and darker and ends in the utter darkness of matter; that aspect of the unconscious is exceedingly incomprehensible...one must include not only the shadow—the psychological unconscious—but also the physiological unconscious which is the subtle body. You see, somewhere our unconscious becomes material, because the body is the living unit, and our conscious and our unconscious are embedded in it; they contact the body. Somewhere there is a place where the two ends meet...and that is the place where one cannot say whether it is matter or what one calls ‘psyche’. (Conger, 2005, p. xxi)

Following this discussion, the students exchanged work with each other. Most profoundly, the students reported experiencing as much inner changes in role as practitioner as when being a client. This is the right use of intersubjectivity in the context of healing. I witnessed profound changes taking place within the students with little actual physical contact being made. Just the practitioner’s presence at the tableside, with their student-client, facilitated deep inner processes within each.

Practical Applications – What’s Unique About Rolfing®

In bringing closure to the workshop, I wanted to bridge back into Dr. Rolf’s concepts and to reconnect with the students emphasizing what is unique about Rolfing®. And, since we have completed the workshop process, I thought this was the opportune time, as Rolfers, to highlight the importance of utilizing an intersubjective context in our practice.

According to Dr. Ida Rolf, “we are working with habit and trauma.” While this statement may appear as rather common sense to Rolfers, it is unique. The myofascial net is the support, container and protector of the human being. It is the medium in

which we work. Other aspects of the type of manipulation we do are germane to Rolfing®, such as myofascial manipulation that accesses the golgi tendon and muscle spindle complexes which in turn goes directly to the brain stem. These structures must be affected in order to alter outward physical structure.

Another aspect of Rolfing® we need to remember is that there are no afferent pathways to ANS, only efferent pathways. What this means is that as you work with a client, you must be able to read what it is they need. You must be like a safe cracker. You track ANS responses to your intervention, and watch for twitching, trembling, shaking, skin color changes, pupil dilation or contraction, sweating, and streaming, plus other physiological expressions of inner state changes. In addition, you need to be aware of how **you** are responding to the client's present state.

If you want to influence your client's shape, you must meet their state. According to Wilhelm Reich, how one is shaped indicates how she will handle her charge. This factor is important to remember because we are not just working with shape, but also with charge/discharge cycles. Within the context of IPR, "A 'whole man' can evolve only when his nervous system is supported internally by his myofascial web and externally by his gravitational field" (Rolf, 1977, p. 202). Unlike other systems of somatic therapy, which organize and balance a man and a woman internally, Rolfing® organizes the man and the woman internally AND in relation to the greater field. We must touch the body in order to talk to the brain. This is how we have the greatest impact in what we do.

Evaluation of the Project

In order to evaluate the effectiveness of my workshop, I sent out a questionnaire six months following the workshop to all of the students. I received feedback to my three

questions from five of the eight students that were present. I have chosen to give a synopsis of my survey as well as direct quotes from some of the respondents as follows.

1) How was the workshop for you?

Generally speaking, all of the students that responded reported that the workshop was “profoundly” encouraging, supportive, and nurturing. One student stated, “The workshop for me was both therapy with past issues that had been preventing me from being fully present with clients, and gave me new tools to understand my clients’ situations and a different approach for dealing with them.” Another student said, “The workshop provided support and an invitation to deepen the level of inquiry and presence with a client. It was profoundly helpful in presenting a way of working that did not increase the demands on my structure in order to be effective...What your work contributes to our understanding of structural function enables practitioners to work from a broader field of understanding.” And yet another student expressed, “The referencing of the ‘resonate field’ phenomenon and how it pertains to our work as practitioner – listening, following, paying attention to the subtle intricacies of our clients’ experience, story, feelings, and expression really allowed the group to merge and explore this material on a deep and truly meaningful, yet practical level.” Most of the respondents stated that the information on attachment theory and brain development and its application to Structural Integration provided a greater understanding of how our work can help with healing the whole person.

2). How has the workshop experience influenced your clinical work?

One of the reasons that I waited six months to send out my questionnaire was so that the students would have ample time to explore the material presented in my workshop in their clinical setting. All of the students said that they were more aware of pacing the session, pausing, waiting for the client's responses to their intervention. Additionally, they appreciated the fact that they are working with the nervous system responses to our work and not just "pushing" the flesh around. Some of the comments are: "I don't tire out in a psychological way like I did before"; "The workshop gave me a 'baseline' experience of being fully present, so that I now know what that feels like – and when I'm not there it's noticeable"; "It feels like a sort of 'veil' that's been between my being able to be totally present when faced with a client has lifted off"; "My state of mind, my mood, my energy, my emotions are every bit as relevant to the session as my client's"; "Where my client and I meet is where 'something happens' – no longer see myself as a servant, but as an equal partner that is both giving and receiving during the session"; "My skills with asking questions that invite the client into self reflection and curiosity about their discomforts/structural limitations has added a new depth to my work". In general, the students are continually exploring qualities of relating to their clients.

3). Please tell me how this workshop might be of value to other Structural Integrationists.

The feedback from this question gives support for my original thesis – that exploring the intersubjective field of relationship in Structural Integration is a necessary and valuable contribution to our work. All respondents stated that they wish they had learned the material presented in their Basic Rolfing® training. Student quotes:

“Encouraging practitioners to let go of ‘technique’ and meet clients where they are as well as being genuine and authentic is a great service to the field”; “This way of working honors the truth that everything we experience shapes us and, in essence, our job is to help uncover where clients need to go”; “For other practitioners I believe this workshop could serve to open people up to other possibilities in the work...many people might be surprised by the idea of working off the body or just holding someone’s arm with support, without ‘doing’ anything in a classic Rolfing® sense”; “Educating practitioners to track the arousal state and release process, how to titrate experiences back to client and help them to resource themselves is necessary for the benefit of all”. And perhaps the most telling quote – “You’re on a pioneering and rich track and I do hope you will continue to offer this material to our community.” Four of the five students expressed interest in further study with me.

Further Development and Conclusions

As mentioned previously, I will be teaching a half-day workshop at the 2007 Somatic Experiencing® Conference, entitled “Life Energy and the Emergent Paradigm – A Balanced Approach to Body, Brain, & Mind”, on October 24-26 at the Claremont Resort & Spa in Berkeley, CA. I intend to refine the workshop I taught in 2006, Working on the Edge – When is it Too Much, When is it Too Little?, to meet the needs of my audience at the conference. The following is my workshop description.

Working on the Edge – When is it Too Much, When is it Too Little?

There is an intimate relationship between states of anxiety and states of neuromuscular tension. The neuromuscular system is not only the vehicle of speech and

expressive gesture, but plays a significant role in other emotional expressions, such as breathing regulation, sexual functioning, fight/flight and above all an influence on the body schema through proprioception. Not only are emotional attitudes of fear and aggression mirrored immediately in the neuromusculature, but also such moods as depression, sadness, excitement, and joy have their characteristic muscular patterns and postures.

The immobilizing effects of trauma deeply encode the neuromuscular and primitive brain structures resulting in the client's inability to function from instinct and natural fluid body expression. States of hyperarousal are reflected in neuromuscular life as hypertonicity, whereas dissociative states appear as flaccid, soft, hypotoned tissues.

This workshop will explore a hands-on approach to resolving these immobility responses. Since the autonomic nervous system has no afferent fibers, the coding of neuromuscular habituation is accessed through modulating quality, quantity, duration, direction, and depth of touch. Participants will learn how to identify and differentiate states of hyperarousal and dissociation in tissues and body segments. Our own ability to enter into the other's feeling state depends upon our capacity to tolerate varying intensities and durations of countertransferential states marked by both positive and negative affects. Practitioner skills for self-regulation will be taught, as well as physical movements to facilitate one finding his/her deep center and inner knowing.

Although I have professionally presented myself as a Rolfer over my years as a healing practitioner, I have extensive training in Somatic Experiencing® (SE), having co-taught workshops with Dr. Peter Levine, the founder of SE. During SE's infancy, Dr.

Levine and I taught numerous workshops to various somatic practitioners throughout Europe and the USA on the treatment of trauma. Clinically speaking, I have always been most interested in how one's soma influences other aspects of the self, and conversely, how one's thoughts, feelings, attitudes, beliefs, and traumatic history influences the soma. Since my specialty is working directly with the body, the conference organizers invited me to present a workshop that would demonstrate approaches in how to work with the body directly to resolve trauma's deleterious effects. Because I could have as many as 100 participants in my presentation, I will demonstrate my work with volunteer(s) from the audience, but I will not have the luxury of working with a small, intimate group of students where I get to work hands-on with each person. Since most participants will be trained in SE and psychotherapeutic modalities of healing, I expect to have a more sophisticated group in understanding attachment, brain development, and affect regulation theories. Much of the foundational learning in SE is about the relational field of intersubjectivity and therefore I anticipate that my audience will easily be able to resonate and attune to whatever is happening between the volunteer that I demonstrate with. My previous teaching experiences, with large groups, has shown me that there is an even larger field of relationship created within a group than that within a therapeutic dyad. All of us will be influenced with what goes on in and with each other. I intend to elaborate on this personal discovery and invite the audience to explore this phenomenon.

I will use several volunteers as models for body reading, and direct the viewing audience such that they may perceive qualitative differences in neuromuscular tone indicating hyperarousal or dissociation. I will do mini-sessions with a few volunteers

demonstrating the application of different strategies for working with hyperarousal and dissociation in the body. These mini-sessions may or may not include touch, depending upon the individual with whom I am working.

Practitioner skills for self-regulation will include a 10-minute guided meditation, led by my wife, Kelly who is President and founder of Brain Sync®. She will play one of her relaxation CD's while using her voice to guide the audience into deep theta brain wave states that facilitate autonomic nervous system regulation. The listening audience will have the opportunity to check-in with their bodies, feelings, sensations, emotions, thoughts, images, and so on. Afterwards, I will ask the audience to stand and I will guide them into abdominal breathing exercises that I teach in Aikido classes. This exercise will encourage a settling into one's ground of being, and can assist a down-regulation of any autonomic nervous system activation that one is experiencing. I will also encourage pelvic movements, rotating one's hips from side-to-side, and in circular motions. This movement can enhance feelings of wellbeing, vitality, and a general sense of connectedness. From here, deep in one's belly, feelings of centeredness and inner knowing can occur. It is only through embodiment that one can truly know one's self.

References

- Atwood, G. E., & Stolorow, R. D. (1984). Intersubjectivity: I. the therapeutic situation. In *Structures of Subjectivity: Explorations in psychoanalytic Phenomenology*, pp. 41-64. Hillsdale, NJ: Analytic Press.
- Balint, M. (1968). *The basic fault: Therapeutic aspects of regression*. London: Tavistock Publications.
- Bowlby, J. (1969). *Attachment and loss. Vol. 1: Attachment*. New York: Basic Books.
- Buber, M. (1970). *I and thou*. New York: Touchstone.
- Conger, J. P. (2005). *Jung & Reich – The body as shadow*. Berkeley: North Atlantic Books.
- Cozolino, L. J. (2002). *The neuroscience of psychotherapy: Building and rebuilding the human brain*. New York: Norton.
- Cozolino, L. J. (2004). *The making of a therapist: A practical guide for the inner journey*. New York: Norton.
- Cozolino, L. J. (2006). *The neuroscience of human relationships: Attachment and the developing social brain*. New York: Norton.
- Crabbe, J. C., & Phillips, T. J. (2003). Mother nature meets mother nurture. *Nature Neuroscience*, 6, 440-442.
- Damasio, A. R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Grosset/Putnam.
- Damasio, A. R. (1998). Emotion in the perspective of an integrated nervous system. *Brain Research Reviews*, 26, 83-86.
- Damasio, A. R. (1999). *The feeling of what happens: Body and emotion in the making of consciousness*. New York: Harcourt.
- Davidson, R. J. (2002). Synaptic substrates of the implicit and explicit self [Review of the book *Synaptic Self* by J. LeDoux]. *Science*, 296, 268.

- Dosamantes, I. (1992). The intersubjective relationship between therapist and patient: A key to understanding denied and denigrated aspects of the patient's self. *The Arts & Psychotherapy, 19*, 359-365.
- Feitis, R. (1978). *Ida Rolf talks about Rolfing and physical reality*. Boulder, CO.: Rolf Institute, Boulder.
- French, N. (2007). On the need of a coherent psychological perspective for structural integration. *The International Association of Structural Integrators Yearbook*, pp. 36-42. Missoula, MT: IASI.
- Freud, S. (1953). *The standard edition of the complete psychological works of Sigmund Freud* (J. Strachey, Ed. & Trans.) London: Hogarth Press. (Original work Published 1923)
- Freud, S. (1957). The unconscious. In J. Strachey (Ed. & Trans.), *Standard edition of the complete psychological works of Sigmund Freud: (Vol. 14, pp. 166-204)*. London: Hogarth Press. (Original work published 1915)
- Freud, S. (1959). Future prospects of psychoanalytic therapy. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 11, pp. 139-151). London: Hogarth Press. (Original work published 1910)
- Freud, S. (1972). *Two short accounts of psycho-analysis* (J. Strachey, Ed. & Trans.) London: Pelican. (Original publication 1927)
- Gabbard, G. O. (2000). *Psychodynamic psychiatry in clinical practice* (3rd ed.) Washington, DC: American Psychiatric Press, Inc.
- Gallese, V., Fadiga, L., Fogassi, L. & Rizzolatti, G. (1996). Action recognition in the pre-motor cortex. *Brain, 119*, 593-609.
- Gallese, V., & Goldman, A. (1998). Mirror neurons and the simulation theory of mind-reading. *Trends in Cognitive Sciences, 2*, 493-501.
- Gallese, V. (2001). The "shared manifold" hypothesis: From mirror neurons to empathy. *Journal of Consciousness Studies, 8*(5-7), 33-50.
- Gelso, C. J., & Carter, J. A. (1985). *The relationship in counseling and psychotherapy: Components consequences, and theoretical antecedents*. New York: Basic Books.

- Gelso, C. J., & Hayes, J. A. (1998). *Psychotherapy relationship: Theory, research, and practice*. Hoboken, NJ: John Wiley & Sons.
- Hayes, J. A., McCracken, J. E., McClanahan, M. K., Hill, C. E., Harp, J. S., Carozzoni, P. (1998). Therapist perspectives on countertransference: Qualitative data in search of a theory. *Journal of Counseling Psychology, 45*(4), 468-482.
- Hayes, J., & Rosenberger, E. (2002). Therapist as subject: A review of the empirical countertransference literature. (Practice & Theory). *Journal of Counseling and Development, 80*(3), 264-267.
- Heimann, Paula. (1950). On counter-transference. *International Journal of Psycho-Analysis, 31*, 81-84.
- Hoffman, I. Z. (1998). *Ritual and spontaneity in the psychoanalytic process: A dialectical-constructivist view*. Hillsdale, N.J.: Analytic Press.
- Jackson, J. H. (1931). *Selected writings of John Hughlings Jackson, volumes I and II*. London: Hodder & Stoughton.
- Kernberg, O. (1965). Notes on countertransference. *Journal of the American Psychoanalytic Association, 34*, 38-56.
- Kohut, H. (1971). *The analysis of the self*. New York: International Universities Press.
- Kohut, H. (1984). *How does analysis cure?* Chicago: University of Chicago Press.
- Kuhn, T. (1996) *The structure of scientific revolutions* (3rd ed). Chicago: University of Chicago Press.
- Langs, R. J. (1974). The therapeutic relationship and deviations in technique. In R. J. Langs (Ed.), *International Journal of Psychoanalytic Psychotherapy, 4*, 106-141. New York: Jason Aronson.
- LeDoux, J. E. (2003). The self: Clues from the brain. *Annals of the New York Academy Of Sciences, 1001*, 295-304.
- Malan, D. (1979). *Individual psychotherapy and the science of psychodynamics*. London: Butterworth.
- McClure, B. A., & Hodge, R. W. (1987). Measuring countertransference and attitude in therapeutic relationships. *Psychotherapy, 24*, 325-335.
- Mesulam, M. M. (1998). From sensation to cognition. *Brain, 121*, 1013-1052.

- Montagu, A. (1971). *Touching – The human significance of the skin*. New York: Harper & Row.
- Montagu, A. (1973). Ashley Montagu on the meaning of education. *College and University Business*, 54(4), 35-38.
- Neafsey, E. J. (1990). Prefrontal cortical control of the autonomic nervous system: Anatomical and physiological observations. *Progress in Brain Research*, 85, 147-166.
- Porges, S.W. (1997). Emotion: An evolutionary by-product of the neural regulation of the autonomic nervous system. *Annals of the New York Academy of Sciences*, 807, 62-77.
- Price, J. L., Carmichael, S. T., & Drevets, W. C. (1996). Networks related to the orbital and medial prefrontal cortex; a substrate for emotional behavior? *Progress in Brain Research*, 107, 523-536.
- Ramachandran, V.S., (2000, May 29). Mirror neurons and imitation learning as the driving force behind “the great leap forward” in human evolution. *Edge* 69. http://www.edge.org/3rd_culture/ramachandran/ramachandran_p1.html
- Rand, M. L., (2001). Boundaries and the body. *Annals of the American Psychotherapy Association*, November, 2001.
- Rand, M. L. (2003). Boundaries and the body. *Annals of The American Psychotherapy Association*, 4(6), 27(1).
- Renik, O. (1993). Analytic interaction: Conceptualizing technique in light of the analyst’s irreducible subjectivity. *Psychoanalytic Quarterly*, 62, 553-571.
- Rizzolatti, G., Fadiga, L., Gallese, V., & Fogassi, L. (1996). Premotor cortex and the recognition of motor actions. *Cognitive Brain Research*, 3, 131-141.
- Rizzolatti, G., & Arbib, M. A. (1998). Language within our grasp. *Trends in Neurosciences*, 21, 188-194.
- Rizzolatti, G., Fogassi, L., & Gallese, V. (2001). Neurophysiological mechanisms underlying the understanding and imitation of action. *Nature Reviews. Neuroscience*, 2(9), 661-670.

- Rizzolatti, G., & Craighero, L. (2004). The mirror-neuron system. *Annual Review of Neuroscience*, 27, 169-192.
- Rogers, C. R. (1942). *Counseling and psychotherapy*. Boston: Houghton Mifflin.
- Rolf, I. P. (1977). *Rolfing: The integration of human structures*. Santa Monica, CA.: Dennis-Landman.
- Schore, A. N. (1994). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Mahway, NJ: Erlbaum.
- Schore, A. N. (2003). *Affect regulation and the repair of the self*. New York: W.W. Norton & Company.
- Siegel, D. J. (1999). *The developing mind: How relationships and the brain interact to shape who we are*. New York: Guilford Press.
- Smith, E. W. L. (1985). *The body in psychotherapy*. Jefferson, NC: McFarland.
- Stark, M. (1999). *Modes of therapeutic action*. Northvale, NJ: Jason Aronson.
- Stern, D. N. (2004). *The present moment in psychotherapy and everyday life*. New York: Norton.
- Stolorow, R. D. (1978). The concept of psychic structure: Its metapsychological and clinical psychoanalytic meanings. *International Review of Psycho-Analysis* 5, 313-320.
- Stolorow, R. D., & Atwood, G. E. (1979). *Faces in a cloud: Subjectivity in psychoanalytic theory*. New York: Jason Aronson.
- Westen, D. (1997). Towards a clinically and empirically sound theory of motivation. *International Journal of Psycho-Analysis*, 78, 521-548.
- Wittling, W., & Roschmann, R. (1993). Emotion-related hemisphere asymmetry: Subjective emotional responses to laterally presented films. *Cortex*, 29, 431-448.