

SPECIAL SECTION: ATTACHMENT RESEARCH AND PSYCHOANALYTIC PROCESS

Editor's note: This is the second of a three-part series on the relevance of attachment research to psychoanalytic theory and therapy. These articles by Douglas Schave and Allen Schore extend the insights offered by Connie Lillas in the last issue of the newsletter concerning the clinical implications of attachment theory. In the third installment there will be two articles addressing psychoanalytic theory. One will look at the work of Ferenczi and the second will address the work of Bion. The series will conclude with an article from the editor of this series, Allen Schore, addressing implications of attachment theory for prevention efforts, including early education. I appreciate Dr. Schore's efforts in editing as well as writing for this series.

Attachment, the Right Brain, and Empathic Processes Within the Therapeutic Alliance

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In the three decades since John Bowlby (1969) outlined the principles of attachment theory, it has become the dominant model of human development available to science. In a contemporary description of the volume, Ainsworth wrote, "In effect what Bowlby has attempted is to update psychoanalytic theory in the light of recent advances in biology" (1969, p. 998). Yet despite the fact that psychoanalysis is now "anchored in its scientific base in developmental psychology and in the biology of attachment and affects" (Cooper, 1987, p. 83), the connections between attachment theory and clinical psychoanalysis have not been as solidly forged (Sable, in press).

In *Affect Regulation and the Origin of the Self* and continuing works I offered evidence to show that attachment represents the dyadic (interactive) regulation of emotion. The baby becomes attached to the psychobiologically attuned regulating primary caregiver who not only minimizes negative affect but also maximizes opportunities for positive affect. Furthermore, the emotion communicating transactions within the attachment relationship are instrumental to the experience-dependent maturation of the developing brain, especially the early developing right brain which is dominant for the first three years of life (Chiron et al., 1997). The right hemisphere, which is specialized for unconscious functions (Schore, 1998d, 1999a), is more so than the left deeply connected into the limbic system and autonomic nervous system, and therefore fundamentally involved in affect and its regulation.

In recent writings I have proposed that attachment theory is essentially a regulatory theory, and that attachment is fundamentally the right brain regulation of biological synchronicity between organisms (Schore in press, a, b). At all later points in the life span the unique operations of the right brain, or as the neuroscientist Ornstein (1997) calls it, "the right mind," mediate the various critical adaptive roles of the unconscious in everyday life (Joseph, 1992, Schore, in press b). These functions are, of course, an intense focus of psychoanalysis, the science of the unconscious mind.

In this abbreviated piece, I would like to offer some thoughts about how the patient forms an attachment bond of

emotional communications with the therapist, how these co-constructed transference-countertransference communications represent the core of the therapeutic alliance, and how an empathic therapist can receive the unconscious communications of the patient (see Schore in press a for a detailed model).

In other words, I will suggest that current information about attachment, affect regulation, and the emotion-processing right brain is describing the "nonspecific factors" that are common to all forms of clinical treatment, factors particularly accessed in psychoanalytic treatment. The major contribution of attachment theory to clinical models is thus its elucidation of the nonconscious dyadic mechanisms that mediate a positive therapeutic alliance between the patient and the empathic therapist, an essential element of any successful treatment.

Meissner states that

the therapeutic alliance makes a distinctive contribution to the analytic process, that it is an essential dimension of the therapeutic relation, and particularly that it provides the matrix within which therapeutic effects are wrought (1996, p. vii).

With patients, especially those showing early forming attachment pathologies and therefore developmental disorders of self-regulation (Schore, 1997b, in press d), the psychotherapeutic interaction directly reveals and engages unconscious internal working models of the attachment relationship that encode, in implicit memory, strategies of affect regulation. There is now consensus that the treatment of such "developmental arrests" is directed toward the mobilization of fundamental modes of development and the completion of interrupted developmental processes. This development is specifically emotional development. Recall Winnicott's dictum that the therapist must understand, at an intuitive level, specifically the emotional experiences of the patient:

In order to use the mutual experience one must have *in one's bones* a theory of the emotional development of the child and the relationship of the child to the environmental factors (1971, p. 3, my italics).

In 1913 Freud proclaimed, "It remains the first aim of treatment to *attach* him [the patient] to it [the process of analysis] and to the person of the doctor" (p. 139, my italics). What can current ideas about attachment as the interactive regulation of emotion and research on the right brain tell us about this process? The direct relevance of developmental attachment studies to the psychotherapeutic process derives from the commonality of interactive right brain-to-right brain emotion-transacting mechanisms in the caregiver-infant attachment relationship and in the clinician-patient therapeutic relationship (Schore, 1994, 1997a, c, 1999b, in press a, b, e). A number of authors have pointed out the direct parallels between the clinical attributes of an effective therapist and the parental characteristics of the psychobiologically attuned intuitive caregiver of a securely attached child.

Embedded in Freud's description of the aim of the treatment is the centrality of the concept of attachment to the operational definition of the therapeutic alliance. For a working alliance to be created, the therapist must be experienced as being in a state of vitalizing attunement to the patient, that is, the crescendos and decrescendos of the therapist's affective state must be in resonance with similar states of crescendos and decrescendos of the patient (Schore, 1997b, in press e). Studies of empathic processes between the "intuitive" attuned mother and her infant demonstrate that the processes of "affective synchrony" (Feldman, Greenbaum, & Yirmiya, 1999) and "disruption and repair" (Tronick, 1989; Beebe & Lachmann, 1994) are entirely nonverbal and that the mother's resonance is not so much with the infant's mental (cognitive) states as with his or her psychobiological (affective-bodily) states. Similarly, the intuitive empathic therapist psychobiologically attunes to and resonates with the patient's shifting affective states, thereby co-creating with the patient a therapeutic alliance in which the clinician can act as a regulator of the patient's physiological states (Schore, 1994; 1997b; Amini et al., 1996).

The right cortical hemisphere, which is centrally involved in attachment functions, is dominant for the perception of the emotional states of others, by a right posterior cortical mechanism involved in the perception of nonverbal expressions embedded in facial and prosodic stimuli (Schore, 1998a, 1999a). It is also 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*." So what can current developmental neuropsychanalysis tell us about psychotherapeutic intersubjectivity, a central focus of current relational models (Stolorow & Atwood, 1996; Natterson, 1991)?

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, so the right 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 Ucs. of one human being can react upon that of another, *without passing through the Cs*" (1915, p. 194, my italics). 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" (1912, p. 115). He called the state of receptive readiness "evenly suspended attention." Indeed, Marcus has written "The analyst, by means of reverie and intuition, listens with the right brain directly to the analysand's right brain" (1997, p. 238).

This same right brain-to-right brain system is described in the neuropsychological literature by Buck as "spontaneous emotional communication":

Spontaneous communication employs species-specific expressive displays in the sender that, given attention, activate emotional preattunements and are directly perceived by the receiver...The 'meaning' of the display is known directly by the receiver...This spontaneous emotional communication constitutes a *conversation between limbic systems*...It is a biologically-based communication system that involves individual organisms directly with one another: the individuals in spontaneous communication constitute literally a *biological unit*. The direct involvement with the other intrinsic to spontaneous communication represents an *attachment* that may satisfy deeply emotional social motives (Buck, 1994, p. 266, my italics).

Buck (1994) emphasizes the importance of specifically the right limbic system, and localizes this biologically-based spontaneous emotional communication to the right hemisphere, in accord with other research that indicates a right lateralization of spontaneous gestures and emotional communication.

These findings are consonant with Bowlby's (1969) speculation that human feelings are recognized through facial expressions, posture, tone of voice, physiological changes, tempo of movement, and incipient action. In a similar conception, Basch states that "the language of mother and infant consist of signals produced by the autonomic, involuntary nervous system in both parties" (1976, p. 766), and points out the direct parallel of this to the therapeutic context in "a situation in which the patient subtly causes the therapist to resonate autonomically with the patient's unconscious affect-laden fantasies" (Basch, 1992, p. 179). Fast-acting and thereby nonconscious transference-countertransference affective communications within the intersubjective field thus mediate the right brain-to-right brain interactive regulation of biological synchronicity between organisms. These heightened affective moments represent an alignment of what Zeddies (2000) calls the "nonlinguistic dimension" of the "relational unconscious" of both the therapist and the patient.

Indeed, such right brain-mind-body processes lies at

the heart of the nonverbal relational communications between patient and therapist. Lyons-Ruth (2000), a member of Stern's Study Group (1998), describes the centrality of the "recognition process" that occurs in the "ordinary moments of change in psychoanalytic treatment":

[Most] relational transactions rely heavily on a substrate of affective cues that give an evaluative valence or direction to each relational communication, and these communications are carried out at an implicit level of rapid cueing and response that occurs too rapidly for simultaneous verbal translation and conscious reflection (Lyons-Ruth, 2000, pp. 91-92).

Studies now reveal that, as opposed to the verbal-linguistic left hemisphere, the right hemisphere is specialized for communicative pragmatics (van Lancker, 1997) and "implicit learning" (Hugdahl, 1995), and performs rapid (80 msec) valence-dependent, automatic, appraisals of emotional facial expressions (Pizzagalli et al., 1999). In fact this hemisphere plays an essential role in the nonconscious appraisal of the positive or negative emotional significance of social stimuli via a mechanism similar to Freud's pleasure-unpleasure principle (Schore, 1999a).

A just-published study by Damasio's group reports that "recognizing emotions from visually presented facial expressions requires right somatosensory cortices," and in this manner "we recognize another individual's emotional state by internally generating somatosensory representations that stimulate how the individual would feel when displaying a certain facial expression" (Adolphs et al., 2000, p. 2683). The therapist's right hemisphere decodes emotional stimuli by "actual felt [somatic] emotional reactions to the stimuli, that is, by a form of empathic responding" (Day & Wong, 1996, p. 651), and this allows the psychobiologically attuned clinician to act as an interactive regulator of the patient's dysregulated internal states. In this manner, the therapeutic alliance, which is now being defined as "the regulation of the collaborative relationship between patient and analyst" (Ponsi, 2000, p. 688) is isomorphic to the therapeutic attachment relationship, defined as the dyadic regulation of emotion (Schore, in press e).

Very recent models suggest that affect dysregulation is a fundamental mechanism of all psychiatric disorders (Taylor, Bagby, & Parker, 1997), that all psychotherapies show a similarity in promoting affect regulation (Bradley, 2000), and that the goal of developmentally-oriented psychoanalytic treatment is the mutual regulation of affective homeostasis and the restructuring of interactive representations encoded in implicit-procedural memory (Amini et al., 1996) and the emergence of a reflective capacity (Fonagy & Target, 1997). The psychotherapeutic transformation of an insecure into an "earned secure" (Phelps, Belsky, & Crnic, 1998) attachment thus reflects the neurobiological expansion of the patient's unconscious "right mind."

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