

Integrating Attachment Theory and Neuroscience in Couple Therapy

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ABSTRACT

The authors integrate findings from neurophysiology, affect regulation and attachment research, and apply them to treating couples. They observe that adult styles of relating to primary attachment figures parallel the attachment styles identified in infant–caregiver relationships. They work with couples on maintaining a state of attunement, providing a secure base, recognizing non-verbal signals of unconscious associations, and processing the emotionally charged interactions that frequently occur in the relationship. They give a clinical example that shows how an understanding of attachment styles and internal working models of relationships provides a perspective in couple therapy for dealing with the underlying needs and longings of intimate relationships.

Key words: affect regulation, attachment style, attunement, couple therapy, infant–caregiver, neuroscience, working models

INTRODUCTION

Bowlby wrote that the human attachment patterns noted in infant–caregiver interaction continue to play a vital role in human development “from the cradle to the grave” (Bowlby, 1979: 129). Following the seminal work of Bowlby and other infant researchers, there has been growing recognition that the quality of childhood attachments is intimately linked with patterns of interpersonal relatedness throughout life (Clulow, 2001). Attachment theory provides a theoretical framework for understanding adult couple relationships, and a valuable perspective for assessing and treating couples. An attachment perspective shifts the focus of concern of couple therapy from the security of the individual to the security of the couple relationship. Central to a couple’s sense of security is the ability to regulate affect within the relationship. Schore’s

(2001) findings from neuroscience provide evidence that attachment patterns influence interactive affect regulation in dyads.

We find parallels between the defining features of infant–caregiver attachment behavior and adult couple attachments. Bowlby (1969, 1973) proposed that attachment bonds are characterized by: (1) proximity-seeking; (2) safe-haven behavior; (3) separation distress; and (4) secure-base behavior. All of these features of infant–caregiver bonds may be observed in couple relationships (Weiss, 1991). The partners derive comfort and security from one another. Each partner wants to be with the other, particularly in times of stress. When one partner in a relationship threatens to be physically or emotionally unavailable, the other partner may protest. However, in adult romantic bonds the asymmetry of early bonds is replaced by symmetry, mutuality and sexual intimacy (Hazan and Zeifman, 1994).

Adult styles of relating to primary attachment figures parallel the attachment styles identified in infant–caregiver relationships. Hazan and Shaver (1987) presented groundbreaking research, which showed that the three major childhood attachment styles (secure, insecure-avoidant and insecure-ambivalent) are also found in adult romantic relationships. Hazan and Shaver (1994) taught that attachment styles of couples can be viewed in terms of the answer to the question “Can I count on this person to be there for me if I need them?” If the answer is “Yes” in a positive and secure way, the partners feel confident that they may rely on each other, have open communication, and experience a flexible, cooperative relationship. If the answer is “Maybe”, partners tend to have an insecure-ambivalent style, with vigilance about loss, and alternating clinging and angry demands for reassurance. If the answer is “No”, the partner’s past history of abuse, neglect or rejection may have left no hope for a secure relationship. In the resulting insecure-avoidant attachment style, the partner avoids closeness or dependency, denies the need for attachment and views others with mistrust.

Hazan and Shaver’s findings are consistent with Bowlby’s (1982) hypothesis that children develop internal working models about relationships. These relatively stable working models are implicit, non-conscious guides for later adult attachment relationships. Bowlby (1982) hypothesized that these childhood attachment patterns could change later in life as a result of new emotional experience, and new mental representations of attachment relationships. Thus, internal working models may be altered and updated, allowing the child to earn a secure attachment style as development goes on (Hesse, 1999). These ideas provide a rationale for therapeutic efficacy.

Additional understanding of attachment relationships is found in neuroscience. Attachment drives depend on the right brain regulation of biological synchronicity between organisms (Schore, 2001). Infant right brain to adult right brain psychobiological transactions, mediated by mutual gaze, promote the attachment bond between infant and caregiver. Early emotional regulation,

established through infant–caregiver synchrony, leads to the organization and integration of neural networks and eventual self-regulatory capacity in the child. Attachment experiences directly influence the wiring of the orbitofrontal cortex to the limbic system. The orbitofrontal cortex mediates emotional responses and coordinates the activation and balance of the sympathetic and parasympathetic branches of the autonomic nervous system (Price et al., 1996). A balance between sympathetic and parasympathetic arousal is found in secure attachments, whereas an imbalance is found in insecure attachment patterns (Schoore, 1994). In insecure-avoidant infants, the autonomic balance is parasympathetically dominated, and geared to respond maximally to low levels of socio-emotional stimulation (Izard, 1991). In insecure-ambivalent infants, the autonomic balance is biased toward the sympathetic excitatory system over the parasympathetic inhibitory system, creating a vulnerability to under-regulation disturbances (Schoore, 2003).

The prefrontal system generates internal working models, which guide interpersonal behavior and affect regulation. These attachment schemas become implicit, non-conscious procedural memory networks, which are evoked in interpersonal experiences, particularly attachment relationships. Attachment schemas guide the selection of significant others and influence the emotions experienced within relationships. When a couple's attachment schema is challenged, or the attachment bond is breached, a couple may seek treatment (Cozolino, 2002). An understanding of attachment styles and internal working models of relationships provides a perspective in couple therapy for understanding the underlying needs and longings that are readily evoked in intimate relationships. The overarching work of therapy is to “replace silent, unworkable intuitions with functional ones” (Lewis et al., 2002: 179).

Couple therapy has traditionally been associated with building communication skills as a means of increasing intimacy between partners. But frequently this approach does not create lasting improvement. Couples may relapse into familiar patterns of conflict that become increasingly destructive. The integration of attachment theory with neuroscience and its application in couple therapy places the emphasis on dyadic affect regulation. By understanding how each partner's nervous system is affected by “emotional reverberations” triggered in dyadic interactions (Lewis et al., 2002: 131), couples can work to create greater emotional attunement and the hope for a secure base within the relationship.

The newly emerging field of developmental neuropsychobiology provides a road map of how emotional patterns develop and a window into the interpersonal patterns of intimate relationships (Schoore, 1994, 2001, 2003). This perspective emphasizes the complex interactive experience that includes both the individual's internal process as well as the co-constructed reciprocal interactions between the two partners. It also focuses on the therapist's role in this interactive sequence as a consideration. In attachment-based couple therapy,

the therapist is committed to creating a secure enough environment in which partners can explore each individual's attachment schemas, enacted in their ongoing intimate relationship (Clulow, 2001). Partners' relational needs are best addressed within a psychotherapeutic relationship, which honors the belief that the offer of secure attachment is essential to the curative possibilities of psychotherapy (Amini et al., 1996). Each partner is encouraged to become aware of personal and dyadic non-verbal communication patterns and to reach beyond them to discover the unconscious implicit memories that drive them (Schoore, 2003). The therapeutic emphasis is on creating a safe base, which permits joint investigation by couple and therapist. Within the secure base of therapy, each partner may feel more balanced, thereby contributing to an enriched and attuned relationship which enhances neural plasticity and learning (Schoore, 2003).

Scharff and Scharff (1991) describe the therapeutic base in different terms. They see it as "a transitional space in which the couple can portray and reflect upon its current way of functioning, learn about and modify its projective identificatory system, and invent new ways of being" (1991: 108). They emphasize that the therapist creates this environment in order to manage and metabolize the couple's anxiety through holding and containment.

There has been a proliferation of research involving the relational patterns between mothers and infants (Beebe and Lachmann, 2003). This has shown that a baby initially needs the interactive presence of an attuned mother in establishing the ability to regulate affect. This finding is validated in couple dynamics too. In couple treatment, the partners are dependent on the therapist to provide the affect regulation that has been eroded by unrepaired continuing conflict. As the partners are helped to understand their unresolved yearnings, they can begin the process of establishing interdependency in which each takes turns as the benign caretaker, especially in stressful life conditions (Solomon, 1994). There is hope that by deepening each partner's understanding of the other, by learning to read each other's verbal and non-verbal cues, and by gaining a deeper appreciation of their own level of arousal, the partners will become more adept at interactive affect regulation, thereby strengthening the security of their attachment bond.

In attachment-based couple therapy, the partners learn about the language of emotion. They are taught to appreciate both verbal and non-verbal communication, including the multitude of signals that are bodily and viscerally based. In any dyad the individual is affected by his own behavior and by his partner's behavior, and each partner is influenced on a moment-to-moment basis by the other (Beebe and Lachmann, 2003). By becoming sensitive, partners learn to pay close attention to their own visceral changes and to be curious about what these bodily signals may mean in identifying non-conscious emotions.

Nonverbal aspects of communication reflect right hemisphere emotional and implicit processes. Quality of eye contact, tone and volume of voice, nature

of body movements, facial expressions, and posture are examples of nonverbal aspects of communication which provide avenues of insight into underlying non-conscious emotion. For example, when the couple therapist asks a man to notice his eyes rolling upwards as his wife speaks, the man may become aware of the contempt and disdain nonverbally communicated to his wife. When the therapist calls attention to the husband's stroking his face, the man may recover memories of soothing himself after being slapped by his mother, a sensitivity reactivated when he feels criticized by his wife.

The following vignette from sessions with Anne and Ed illustrates how the therapist's focus on nonverbal aspects of couple communication allows access to non-conscious emotion in dyadic transactions:

Anne: (*Beginning the session*) I can't believe how far apart I've felt from Ed this week. It all started when he discovered the \$75.00 late fee from Visa. He thought that I paid the bill, and I thought that he had done it. So, we ended up with a late fee. For the rest of the week, he's been so distant and quiet.

Ed: (*His face hardened, jaw and teeth clenched, but speaking in a measured tone*) I hate to waste money and the late fee is \$75.00 wasted. She's so careless with money. Just like her family that always lived beyond their means. No one in her family ever paid a bill on time. She's going to get us into the same financial mess.

Anne: (*Slumped into the sofa, crying*)

Ed: (*Continuing to clench his teeth, his face hardened and tense*)

Therapist: (*Thinking that Ed's tone of voice does not match his facial expression of anger, noting that he is speaking so calmly, yet his face looks furious, wondering how to help him have a connection with his emotion, and deciding that his facial expression seems to be the key*) Ed, can you pay attention to your face, and touch your lower face? What do you feel in your face?

Ed: (*Looking surprised, and touching his face hesitantly*) My jaw is clenched, and my teeth are grinding together. The muscles in my face are tense and they almost hurt. I am so embarrassed. I did not know that I was so angry, and I'm embarrassed that you see it in my face.

Anne: And this is what happened at home. Ed had that look on his face all week, but didn't talk to me about how he really felt and how mad he was about the late fee.

Ed: I guess I didn't want to admit to Anne or myself how mad I've been about this. It's really hard for me to be angry out in the open.

Therapist: For you, Ed, anger is not an emotion that you allow yourself, and you feel embarrassed that others may see it on your face. But Anne always senses when you are angry, and pulls away.

This sequence in treatment of Anne and Ed became a reference point in our talking about feelings which are expressed between them nonverbally – for instance, in gestures, facial expressions and visual cues. The concept of being attuned to each other's nonverbal communications has been extremely helpful to this couple in creating attunement, recognizing misattunement, and developing the ability to repair breaches in their attachment relationship. Good

enough attunement is defined in current research as 30% of mutual time spent in a good psychic place (Gianino and Tronick, 1988). This concept of 'good enough attunement' is helpful to couples. While learning to value balance and harmony, the couple also learns to process the pain of their periods of misattunement, enduring these lapses by remembering that conflict is a normal part of any couple relationship as a reflection of the differences between the two separate partners (Gottman, 1991). Couples can feel hope about resolving their conflicts by thinking of them as opportunities for engaging in the process of mutual repair and so achieving greater closeness. Often neither partner has experienced his negative emotions as tolerable or understandable. Thus, when there is an attachment breach, a cycle of shame is triggered, with one partner feeling that he or she is being held responsible for being unreasonable and demanding. Couples are taught how the intense state of interactive dysregulation is maintained by both partners, and how this dysregulated state can undermine their attachment bond if it is not interrupted by more reparative approaches. When conflictual feelings are seen as a normal part of a couple's interaction, then each partner can be more interested in what is being activated to create his or her personal contribution to their interactive stalemate. Each partner is encouraged to learn how to self-regulate and so become more sensitive to the partner's affect regulation. This builds mutual awareness and empathy within the dyad, and interrupts the ongoing negative cycle.

In this approach to treatment, there is a continuing emphasis on how each partner is processing the emotionally charged interactions that frequently occur in the relationship. By deepening the understanding of one's own internal conscious and non-conscious systems, each partner has a greater capacity to explain his emotional state and needs. The couple learns about the unique subcortical emotional system that they have constructed. They are shown that the automatic rapid and non-conscious appraisal of danger and frightening stimuli can be slowed down when conscious thought and language are used to interrupt this rapid fear cycle (Cozolino, 2002). By emphasizing the neuropsychobiological basis of automatic, rapid fear and shame responses, the therapist is able to normalize conflictual states. This type of shaming sequence begins when a young child is socialized, and can become a chronic pattern in adult relationships. Schore (1994, 2001, 2003) describes shame-based responses moving in a sequence from negative affect to reestablish the state of positive affect, a state of equilibrium and calmness. Healing of the couple's attachment needs is brought to the foreground when these frightening moments are made conscious, then given form, substance and language, allowing joint examination of the interactive process (Johnson, 2002). The healing process of repair begins with making a commitment to engage in the examination of fearful moments and goes on to include the co-creation of a shared narrative of the couple's history and manner of emotional processing (Siegel, 1999).

We propose that couple therapy based on the integration of attachment theory and neuroscience provides a secure base for the couple, allows the possibility of updating old internal attachment schemas, and creates new neuronal connections with altered ways of thinking about experience (Siegel, 1999). From a neuropsychobiological perspective, the dysfunctional right brain to right brain transactions between the two partners are replaced with more balanced and considered transactions (Schoore, 1994, 2001, 2003). Partners no longer engage in unconsciously traumatizing each other. Being capable of navigating these lapses in connection actually creates resilience and hope at the foundation of the partnership. All of this is fundamental to the creation of a secure base in which each partner can experience his emotional needs, with a sense of wellbeing, and the state of feeling loved.

Conjoint therapy with Sue and John offers an opportunity to examine these principles from attachment theory and neuroscience in a treatment sequence. Sue and John sought couple therapy because they were having frequent crises regarding their professions as university professors. The following vignette is from a session in which Sue became extremely upset about her overwhelming responsibilities, both at home and at the university.

Sue: (*Her voice escalating, becoming increasingly shrill*) You just can't imagine how burdened I feel. All I do is work, work, work. John has his tenure track appointment, so he can just work on his research and the book he is writing without having to do anything else. (*Yelling at John who sits passively in his chair staring straight ahead*) I'm the one who is expected to pick up and take care of whatever is necessary in our family. It just isn't fair. I have no life. (*Looking at him for some sign that he had taken in what she had been yelling about, for some sign of recognition and concern, but finding none, becoming even angrier and more rageful*) You are so mean and uncaring, I can't take it any more.

Upon hearing these words, John's eyes were filled with disgust and he scowled, and then quickly turned away. He seemed impervious to her cries. Sue saw this and bit her lip, fighting back her rage which soon turned to tears.

Therapist: (*thinking*) I saw this coldness and felt the tension in the room as each partner retreated into a closed down space. I wondered what John was feeling that made him react to Sue in this way. Was it just that he was feeling blamed, and if this was so, why didn't he say something to her? Both seemed so angry. I felt powerless to be able to calm their vibrating nerves down. I wanted out of there too. Wasn't this what both of them felt?

The partners were exhibiting their individual insecure-avoidant attachment styles which were dismissive and rejecting. Their outward behavior suggested that neither believed that the other wanted to be there. In this evocative moment, neither was able to bridge the gulf because both carried the internal view of themselves as someone who is unlovable. This insecurity left each partner vulnerable to being easily disrupted. The continuing occurrence of attachment breaches without the ability to repair created pessimism and despair in the couple.

Therapist: *(thinking)* I had to do something to interrupt this escalating situation and that was a challenge when I too was feeling threatened. I told myself that I could manage my fears as long as I kept away from absorbing theirs. I was there to provide a holding environment for them, and I had to begin relating to them. I began by speaking quietly to each one separately about the rapid shaming that had just occurred. I was extremely careful about the tone and tempo of my voice, knowing that it could negatively impact one or both of them.

Therapist: This was really an intense time, and we all had our own reaction to how quickly feelings were triggered. *(Looking at John)* You were so overwhelmed by Sue's anger that it looked like you wanted to get away from her. Each of you feels as if you're being made into the bad one while your partner gets to walk away untouched. Each of you feels the hurt and pain of being unwanted so it is hard for you to want to look at your contribution to this moment. You both want me to bear witness to how poorly you have been treated, so that maybe I'll get you, John, to think about how much you have hurt Sue by ignoring and how much you, Sue, have hurt John by complaining.

Sue: I am feeling upset, and then I look at your blank face, John, and it makes me feel absolutely so alone that all I can do is feel rage and fury. I want to get as far away from you as fast as I can. You just don't seem to care at all.

John: *(Attentive, quiet, listening, watching Sue, his face no longer like a mask)* I guess that when you begin to talk like that, it makes me so upset that I don't want to have to hear you.

Therapist: Sounds like Sue's tone and expression make you tense and nervous.

John: I guess I never like to think of myself as a nervous person, but you're right, I feel weird and kind of shaky. Like, I really don't know what to say or do.

Therapist: *(thinking)* I could see that this was causing a reaction in John because it was too close to his experience with his parents who had frequent rages over the fact that his father was usually out of work and unable to support the family. I waited for him to begin to make the connection as we dealt with his feelings of helplessness.

John: I guess that I am more upset with the way you tell me things than what you are actually saying. You do have to do a great deal, and we have to work out a way to manage all these responsibilities better together. But I can't think when you start raging at me.

Sue: I am amazed, John. You are actually talking to me. That's what I have been wanting and thought was so impossible. Maybe this therapy thing really can help us to learn to listen to each other after all. I thought it never would happen.

Therapist: Well, now we have a beginning. *(Trying not to overtalk this point, but wanting to lay the groundwork to explore their co-constructed unconscious patterns of the dismissive attachment I am seeing)* We have to begin to unravel why you revert to the particular patterns of relating that have become so automatic and habituated in your relationship.

This brief moment is an example of the rapid cycle of fear and anger that becomes a regularly enacted pattern when each partner's insecurity is being repetitively triggered by both verbal and nonverbal cues. Additional couple therapy with Sue and John allowed them to become increasingly aware of emotional triggers in words and gestures which escalated conflict, and eroded their sense of a secure attachment bond. As this example illustrates, the therapist has to manage his or her own feelings which are being triggered by the continuing enactment of the two partners.

SUMMARY

The goal of couple therapy based on an integration of attachment theory and neuroscience is to explore and identify the interaction patterns of affect regulation that are the basis of either enhancing or diminishing the emotional connection between the partners. This type of couple therapy is not just about verbal communication patterns and the words used to convey emotion. Nonverbal and non-conscious communication allows us to observe how partners are affecting one another's psychophysiological reactions on a moment-to-moment basis. These patterns of interaction are maintained by the non-conscious attachment schemas that organize each partner's sense of himself or herself in the relationship. There is an ongoing struggle for the couple to answer the question "Can I count on this person to be there for me?" (Hazan and Shaver, 1994). In effect, the answer to this question provides an important perspective for the couple in understanding attachment schemas. This profoundly complex work is about helping each partner understand his or her part in interrupting the attachment connection, in both overt and non-conscious ways. Each member of the dyad must endeavor to make sense of personal attachment needs, understand that perfect attunement is not the goal, and aim for the repair of inevitable moments of disruption. We propose that this resiliency is the essence of a truly loving and enduring relationship.

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