**Countertransference:** The range of unconscious affects, bodily states, and cognitions evoked in the psychotherapist that result both from the intersubjective experiences of being with the patient and the therapist's own relational history. In current dyadic models of the therapeutic bond, the clinician's countertransference patterns are primarily responses to the patient's transference emotional communications.

Spontaneous nonverbal transference-countertransference interactions at preconscious-unconscious levels represent right hemisphere-to-right hemisphere communications of fast acting automatic, regulated and dysregulated bodily-based emotional states between patient and therapist. Countertransference is determined by the fit between what the patient projects into the therapist and the preexisting intrapsychic structures activated by the patient's nonconscious communications. These "intrapsychic structures" are located in the empathic therapist's right brain. This hemisphere has extensive connections into the limbic and autonomic nervous system, and is dominant for the reception, expression, and communication of emotion, threat, and affect regulation. Countertransference is appraised by clinician's observations of his/her right lateralized visceral responses to the patient's communications, especially the therapist's autonomic responses that are reactions on an unconscious level to the patient's nonverbal transference communications.

The therapist, via right brain processing of interoceptive awareness, consciously and particularly nonconsciously accesses the range of emotional-psychobiological responses to understand the depth, intensity, and complexity of
the nonverbal communications from the patient. This receptivity is influenced by
the therapist's own developmental history, and may account for both increased
receptivity or deflections of the patient's unconscious communications, thereby
facilitating or inhibiting effective unconscious engagement with the patient. (243)

Resonance: A shared feeling or sense between two persons. This dyadic
psychobiological process describes the highly attuned, well-fitted interactions in
any intimate, intersubjective interaction, from the infant-caregiver relationship to
the patient-clinician relationship in the therapeutic alliance. In the physical
sciences resonance refers to the condition in which an object or system is
subjected to an oscillating signal having a frequency at or close to that of a
natural vibration of the object or system and the resulting amplification of the
natural vibration.

Intersubjective resonance is a primary mechanism of mutual gaze
transactions, in which the infant's and mother's right brains are brought into
synchronicity, thereby allowing an intensification of positive affect and a
psychobiological linkage within the dyad. An amplification of vitality affects occurs
especially when the mother's psychobiologically attuned external sensory
stimulation frequency coincides with the infant's genetically-encoded endogenous
rhythms. In such bodily based nonverbal affective transactions the infant's
developing right lateralized limbic-autonomic circuits resonate with the mother's,
thereby allowing for the co-creation of an intersubjective context which allows for
the outward expression of internal affective states in infants.
Early psychobiological attachment experiences of intersubjective resonance facilitate the emerging capacity of the individual to empathize with the emotional states of other humans, an adaptive function essential to shared states of intimacy, including the intimate context of the therapeutic alliance. At all later stages of human development, when a psychobiologically attuned dyad co-creates a right brain-to-right brain resonant context, the behavioral manifestation of each partner’s internal state is monitored by the other, and this results in the coupling between the output of one partner’s loop and the input of the other’s to form a larger feedback configuration and an amplification of the positive state in both. Intersubjective resonance also allows for the intensification of an unconscious affect into consciousness in both members of the therapeutic alliance. (306)

**Autoregulation:** An individual’s organismic adaptations to cope with stress, without turning to other humans, in order to maintain a homeostatic balance in relation to itself and its environment. This strategy of affect and self-regulation involves alterations of brain/mind/body to stressful alterations in the relational and physical environments. Much of this occurs at nonconscious levels of awareness. Because strategies of autoregulation represent psychobiological responses to relational stress, they underlie characterological patterns of defense mechanisms.

A critical period for the emergence of these essential regulatory strategies evolves in human infancy, in tandem with the experience-dependent maturation
of the right brain's connections into the stress regulating hypothalamic-pituitary-adrenal (HPA) axis. As a result of interactive regulation embedded within early attachment experiences with caregivers in the first two years of human life, the child's evolving capacity for autonomous regulation of essential bodily-based self functions becomes more complex. In interactive play sequences affectively attuned caregivers engage the child in mutually regulated states of central and sympathetic autonomic arousal, thereby extending the child's tolerance for positive affects of interest and excitement. During interactive repair transactions the caregiver provides a regulatory function by dampening down intense states of negative high arousal, engaging the infant's parasympathetic soothing-calming functions, thus allowing the child to tolerate negative affective states. These dual modes of interactive regulation imprint circuits in the early developing right hemisphere, which is dominant for arousal regulation and autonomic activity, thereby expanding the child's capacity for autoregulation.

Depending upon the quality of attachment experiences, patterns of autoregulation can either be adaptive or pathological. Autoregulation is a dynamic process that continues through the lifespan, and although autoregulatory styles are established early in life, patterns of maladaptive autoregulation may be amenable to change at any point in an individual's development. Pathological autoregulation is thus a major focus of psychotherapeutic work with dissociative defenses. (303)

**Earned secure attachment:** This attachment classification designates
individuals whose attachment experiences as presented would ordinarily create an insecure state of mind, suggesting that such personalities have gained an attachment perspective that would not have been predicted, based upon their developmental history.

Internal working models that encode strategies of affect regulation are initially imprinted into the early developing right brain. In growth inhibiting early relational histories, patterns of insecure attachments are burnt into right laterализed regulatory cortical-subcortical circuits. The right brain, however, enters into later periods of growth, and is therefore capable of adaptation and change. Further experience-dependent maturation of the right brain occurs when the individual has sustained access to interactive regulation at later points of development. Although “earned secure” parents have unsupportive early attachments, observational research indicates that even under conditions of high stress there is no difference in the parenting of earned secure versus continuously secure parents, and both groups are more positive with their toddlers than mothers classified as insecure. These data are consistent with the fundamental assumption of attachment theory that although internal working models created within early attachments have far-reaching effects, changes in internal working models can occur and can alter the influence of early experiences. Thus, current relationships reflect present as well as former relationships, and internal working models, although nonconscious, can be modified by optimal interpersonal experiences.

Earned secure attachments may also result from ongoing experiences of
interactive regulation that accompany a successful psychotherapeutic experience, and can be expressed in more efficient and complex brain regulatory systems. Insecure internal working models of attachment that operate at nonconscious levels, encoded in the right brain, can thus be altered in effective psychotherapeutic treatment. (280)

**Dorsal Vagal System:** A central component of the energy-conserving parasympathetic nervous system, located in the medulla oblongata, that is activated when sympathetic flight-fight is not possible. This system is enhanced in the early developing emotion processing right hemisphere.

Since the dorsal motor branch of the vagus, one of two vagal branches, is unmyelinated, it operates more slowly than the faster ventral vagal social engagement system and the defensive fight/flee sympathetic nervous system. This inhibitory system located in the medulla oblongata triggers slowing of the heart (bradycardia) and rapid fall in blood pressure. This response causes a shutdown of higher cortical centers, expressed in vaso-vagal syncope (fainting), feigning death states that occur in extreme terror states, dissociative states, and freeze behavior. Because this immobilization defense system is associated with reduced metabolic demands, pain associated with sympathetic hyperarousal is decreased, allowing the organism to survive further threat. For infants and young children who are unable to flight/fight due to an immature ventral vagal system, this defense strategy is rapidly adopted when the source of the protection, the primary caregiver, is also the source of maltreatment. The dorsal vagal system