

# THE EMOTIONALLY ENGAGED ANALYST I

## *Theories of Affect and Their Influence on Therapeutic Action*

Michael L. Miller, PhD  
*Seattle Psychoanalytic Society and Institute*

The salience of the analyst's emotional engagement of the patient in fostering therapeutic change is reviewed and related to the theory of emotion implicitly or explicitly held by the analyst. The analyst's conceptualization of the analytic process, attribution of meaning to the analytic dialogue, selection of interventions, and recognition of the emotional component of treatment are explored as a function of the analyst's theory of emotion. A dynamic systems theory of emotion is proffered to illuminate the complex interactions that create the emotional experience of the patient and of the analyst and that affect the nature and quality of therapeutic process itself that have not been accounted for by the commonly held theories of emotion.

*Keywords:* theory of affect, emotion, therapeutic action, dynamic systems theory

The analysis of the meaning of a patient's symptoms, conflicts, transferences, and resistances has been at the heart of psychoanalytic treatment since its inception. In recent decades psychoanalytic theorists have added to the ways in which we appreciate a patient's conflicts and transferences the narrative meaning that patients consciously and unconsciously construct to understand and to contextualize their subjective experience and their relationships to others (Schafer, 1976, 1992; Spence, 1982). Modern psychoanalytic thinkers advanced the analysis of meaning still further by contributing the idea that the analyst participates in the construction of the patient's narrative (Gill, 1982; Loewald, 1960; Mitchell, 1988). Indeed, the ways in which the analyst contributes to the analytic interaction have occupied center stage in the literature for many years.

One aspect of the analyst's contribution to the analytic matrix that has resisted clear elaboration has been the analyst's emotional reactivity. Nearly every school of psychoanalysis today recognizes that the analyst's emotions play a role in the analytic interaction and contribute to the meanings derived from the patient-analyst dialogue. Nevertheless, controversy exists as to the nature and extent of that role. Although most psychoanalysts

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Michael L. Miller, PhD, Seattle Psychoanalytic Society and Institute, Seattle, Washington.

Correspondence concerning this article should be addressed to Michael L. Miller, PhD, 4026 N.E. 55<sup>th</sup> St., Suite B, Seattle, WA 98105. E-mail: michael-miller@msn.com

will acknowledge that the analyst's emotional reactions contribute to his or her empathy with the patient, providing the analyst with a window into the patient's subjective experience, some practitioners, such as Gray (1993), believe that the analyst's empathy should be restricted to informing the analyst about the patient's state of being, the patient's readiness for an interpretation, or the most affectively meaningful point of intervention. Schwaber (1981, 1996), reinforcing Gray's perspective, conceives of the analyst's empathy as a tool with which to identify a patient's subjective experience within the coconstructed matrix of the analytic interaction. Schwaber (1981) emphasizes that the analyst's empathy is a "mode of attunement which attempts to maximize a singular focus on the patient's subjective reality, seeking all possible cues to ascertain it" (p. 378). She cautions the analyst to vigilantly guard against the imposition of his or her point of view.

Other psychoanalysts opine that the analyst's empathic resonance with a patient's subjective experience is a crucial transformative element in psychoanalytic treatment (Aron, 1996; Kohut, 1959, 1971; Lichtenberg, 1981; Schore, 1994, 2003b). These theorists believe that the analyst's emotional responsiveness goes beyond simple empathy with the emotional states of the patient. They argue that the analyst's expression of his or her emotional reactions provides a context of understanding within which patients feel safe and open to the analyst's interventions (Gedo, 1979; Kohut, 1977; Sandler & Sandler, 1978; Stolorow, Brandchaft, & Atwood, 1987). Indeed, Gill (1982) sees the analyst's emotional participation as an essential component in the patient's formation of the transference.

Some contemporary psychoanalytic theorists, however, counter that an analyst's emotional engagement of a patient is an expression of the analyst's unconscious emotional conflicts (e.g., Chused, 2003), or that the analyst's emotional reactivity leads to a traumatic reification of the patient's unconscious fantasies and fears (e.g., Schafer, 1999). Relational analysts, on the other hand, strongly advise that the analyst's emotional engagement of the patient is an essential element of analytic treatment. Aron (1996), Davies (1998), Jacobs (1986), Levenson (1983), Mitchell (1988, 1993), Ogden (1995, 1997), and Renik (1996) posit that unless the patient and the analyst enter one another's emotional world, as active participants in creating and interpreting one another's lived experience, the relational matrix that constitutes the curative element in psychoanalytic treatment fails to emerge. Without an emotionally engaged analyst, treatment is never fully realized.

This essay aims to clarify the nature of the contribution that the patient's and the analyst's emotional reactivity makes to the psychoanalytic enterprise. The theory of emotion to which we as analysts implicitly or explicitly subscribe is a key factor influencing the way we understand what the role of our affective experience in psychoanalytic treatment is. The way we conceptualize emotion determines in great measure what we can conceive of doing with a patient's emotional experience as well as our own. I will show that with each successive advance in our theoretical understanding of emotion the analyst's emotional participation becomes more central to the analytic process, opening new avenues of therapeutic relatedness and intervention. I will explain how the meanings that the patient and the analyst employ to interpret their subjective experience and their interaction are determined in significant ways by the exchange of emotions between them. To this end, I will review two major contemporary theories of emotion (the cognitive appraisal approach and the functional/discrete analysis) and describe their influence on modern psychoanalytic theory and practice. I will then introduce a new approach to emotion based on dynamic systems theory.

The dynamic systems theory of emotion significantly advances our understanding of

the role of emotion in psychoanalytic process because of its power to account for multiple interacting factors in the creation and regulation of emotional experience. The theory places the analyst and the patient on equal ground in the construction of one another's emotional experience, in the formation of the emotional ties that bind them, and in creation of the meanings by which they understand the nature of their interaction and of their subjective experience. Although I will describe the technical considerations this approach implies for the analyst's listening and interventions, these topics will be explicated more fully with case examples in a companion paper (Miller, in press). Because the focus of this paper is on the ways in which the analyst emotionally engages the patient, I'll begin by reviewing what other psychoanalysts have written on this topic.

### Psychoanalytic Perspectives on the Analyst's Emotional Engagement of the Patient

The idea of an emotionally engaged analyst is not new. Freud (1913) explicitly suggested that the analyst's emotional engagement of the patient fosters a positive transference that provides the context within which psychoanalytic treatment operates. Freud's emotional involvement with his patients was evidenced in his behavior toward them as is illustrated in his treatment of the Rat Man (Lipton, 1977). As early as 1949, Winnicott noted that the explicit expression of the analyst's emotional experience facilitated treatment with some patients (Winnicott, 1949). Heimann, in her landmark 1950 paper on countertransference, highlighted the analyst's emotional responsiveness as an important and unavoidable element in psychoanalytic treatment (Heimann, 1950).

As affects came to replace drives as the motivational systems in psychoanalytic treatment and were observed to be the indicators of meaning in a patient's communication (e.g., Kernberg, 1976; Modell, 1973, 1978; Sandler & Joffe, 1969; Sandler and Sandler, 1978) opined that it was not only the analyst's role-responsive behaviors that were instrumental in actualizing the patient's unconscious wishes but also the analyst's emotional reactivity, especially in fostering a treatment alliance, promoting a background of safety, and in affirming the patient's sense of self and well-being. Loewald (1960) and Emde (1980, 1988) further emphasize that effective treatment required a nonneutral, emotionally available analyst who gauged his or her emotional responsiveness to the emotional needs of the patient.

Interpersonal, object relations, and relational analysts have long argued that the analyst's emotional reactivity is one of the principle vehicles through which the analyst's subjectivity is expressed to the patient and the analyst's authenticity revealed (Aron, 1996; Ehrenberg, 1974, 1984; Guntrip, 1969; Levenson, 1972; Mitchell, 1988; Renik, 1993, 1995). How the analyst's subjectivity and emotionality were to be revealed to the patient became a major theme for the analysts writing about these ideas. Some, like Bollas (1983), focused on how the analyst can transform the emotions aroused in the analytic exchange into a verbal form so that they can be metabolized better by the patient. Bucci (1997), Levin (1980, 1997), and Stern (1997) suggested that the analyst's verbalization of his or her own emotional experience aids in transforming into meaningful feelings the patient's unformulated or dissociated emotions. Still others, like Ehrenberg (1984), reflected on how the analyst is to modulate the expression of his or her affect so as neither to overwhelm the patient nor to underplay the feelings aroused in the patient. Over the last two decades a vast literature has been written analyzing the contribution of the analyst's subjectivity to the analytic process, a development that has been superbly reviewed by

Aron (1996). In his contributions to the literatures on mutuality, enactment, spontaneity, and self-disclosure, Aron suggested that the analyst is constantly expressing—both consciously and unconsciously—his or her emotional reactions to the patient. He proposed the idea of mutual analysis of the analyst's emotionality as well as the patient's emotional responses as a means of understanding the emotional dialogue between the analyst and the patient.

The salutary nature of the analyst's emotional reactivity has been highlighted by the observations of contemporary self-psychologists who find that the analyst's emotional input has vitalizing and self-righting effects on a patient's sense of self (Lichtenberg, Lachmann, & Fosshage, 1992, 1996). The positive effects of the analyst's emotional reactions have also been noted by Bacal (1990; Bacal & Herzog, 2003) in the creation of self-object transferences and corrective emotional experiences that transform a patient's self-organizing schemes. Ogden (1982, 1995) has described how the analyst's affective reactions model emotional processing and contribute to the vitality and aliveness of the analytic exchange. In a similar vein, Beebe and Lachmann (1996, 2002; Lachmann & Beebe, 1996) note the importance of the analyst's emotional reactions in the cocreation of moments of heightened affect that they and others (Stern et al., 1998; Wolf, 1993) consider to be a necessary state of being for transformations to occur in the schemas that organize the mind. Sander (2002) and Benjamin (2002), reflecting on the importance of the analyst's recognition of the patient in psychoanalytic treatment, cite the analyst's emotional responses to the patient's behavior as a significant contributing factor in affirming the patient's senses of agency and identity. Some analysts now regard the authenticity and genuineness of the analyst's emotional reactions as being so vital to the analytic process that they advocate strongly for the analyst to interact with the patient in a spontaneous, emotional manner (Aron, 1996; Lichtenberg, 1999; Miller, 1999, 2004a, 2004b; Ringstrom, 2001; Stern et al., 1998).

The research of psychoanalytically oriented developmentalists added the empirical observations and theoretical foundations needed to understand the centrality of the analyst's emotional contributions to psychoanalytic treatment. The pioneering studies of Beebe, Stern, and Jaffe (1979), Emde (1980, 1988), Sander (1985), Stern (1985), Trevarthan (1979), and Tronick (Cohen & Tronick, 1988; Tronick, 1989) introduced into the psychoanalytic literature and into clinical practice the idea that subjective experience, particularly emotional experience, is interpersonally shared, shaped, and regulated. Schore (1994, 2000, 2002) explicated the specific ways in which the analyst's subjective experience and emotional behavior shaped and regulated the neural pathways that govern the patient's affective experience and attachment to others.

One can conclude from this brief review of the literature that many psychoanalytic writers from diverse theoretical backgrounds believe that the analyst's emotional reactivity makes a significant contribution to the therapeutic interaction. As I noted earlier, our theory of affect determines how we conceive of the analyst's emotionality effecting the therapeutic interaction and the patient's organization of experience. I will now turn to a discussion of the major perspectives on affect that have influenced the way psychoanalytic thinkers have conceptualized emotional experience and, thereby, conceived of influencing the patient. The field of affect is a complex one with many rich theories to explain these phenomena. What I intend to present is only enough of these many hypotheses to demonstrate the way they have influenced psychoanalytic theory and technique.

## Freud's Theories of Affect

Freud's theories of affect (1915, 1926) anticipated contemporary theories of emotion in conceptualizing affect as both a drive discharge process and as a signal representing a meaningful idea. When no drive action could take place, Freud originally reckoned, emotions served as discharge channels, like open floodgates for the dammed-up drives. Later, when Freud put affect under the control of the ego, he added that emotions were also anticipatory signals that warned of mounting drive tension; that is, feelings were also motivating cognitive representations or ideas. Freud's theories defined the psychoanalytic concept of affect until the third quarter of the 20th century, when new ways of formulating emotional experience that were based on research in cognitive and developmental psychology began to influence psychoanalytic thought.

The introduction of these new theories of emotion to psychoanalytic practice at first caused much confusion. In reviewing the 1990 edition of *Emotion: Theory, Research and Experience, Volume 5*, edited by Plutchik and Kellerman, Dahl (1997) concluded that the volume documented well "the deplorable and confused state of psychoanalytic thinking about emotions or, as analysts prefer, affects. The absence of a coherent psychoanalytic theory of emotions is truly remarkable, given clinicians' nearly universal belief in the centrality of emotions in every patient's life and treatment" (p. 969).

As psychoanalytic theorists began to better understand these psychological theories of emotion, they produced more coherent perspectives on psychoanalytic theories of affect. Two broad categories of psychoanalytic theorizing emerged from this influx of psychological theories. The first included those theories based the cognitive appraisal of emotional stimuli, whereas the second encompassed those approaches that conceptualized emotion in terms either of its adaptive function or as a process involving discrete complexes of arousal and action in the service of survival.

## Cognitive Appraisal Theory of Emotion

The dominant scientific theory of emotion for the last half of the previous century was the cognitive appraisal theory. This theory derives from research that settled the James-Cannon debate over the origin of emotions in favor of Cannon (for a review see LeDoux [1996] or Mandler [1984]). James reckoned that feelings are the result of physiological feedback from reaction to a stimulus. Cannon, citing research that physiological feedback is too slow a process to influence feelings, argued that emotions are the result of attributing a meaning to physiological arousal. According to contemporary cognitive appraisal theories (Lazarus, 1991; Mandler, 1984; Schachter & Singer, 1962) emotion consists of two principal components: arousal and cognitive interpretation. Physiological arousal, activated by perceived events, is a nonspecific phenomenon that sets the quantitative parameters of emotional behavior and experience. The particular quality of an emotion is determined entirely by the cognitive interpretation of the stimulus event that evoked the current mental state. Simply put, arousal provides the intensity of the emotional state and cognition provides its quality.

The events that evoke emotional experience induce physiological arousal and instantiate a cognitive evaluation of the stimulus. Two types of arousal may be initiated. The first is a preprogrammed and automatic autonomic nervous system response, such as sexual arousal or fear. In this class also fall reactions to physical injury or threat, and to the interruption or blocking of actions, plans, and goals. The second type of arousal is

mediated by the cognitive interpretation of an otherwise innocuous stimulus that acts as a releaser of autonomic arousal and emotional behaviors. In this second category are objects and events—such as snakes and guns—which, through experience, are transformed into releasers of autonomic arousal. Arousal has two main adaptive functions: It maintains the physiological readiness and homeostasis of the organism, and it activates attention, alertness, and scanning of the environment. Both types of arousal feed back to the cognitive system, which attributes to it a contextual meaning that then permits the construction in consciousness of an emotional experience.

Cognitive appraisal occurs automatically and nonconsciously with every perceived event. These events may be occurring in the external world or within an organism, including its own actions and behaviors. Cognitive evaluations are formed by assimilating the current event to a mental construct call a *schema* that contains and represents earlier experiences in similar circumstances. The schema itself is evoked by the here-and-now event. The current situation is thus given a meaning by its assimilation to a schema or set of schemas that best fit the here-and-now circumstances. Indeed, multiple schemas may participate in the assessment of an event's meaning, with some pertaining to the motives and goals of the person at that moment, and others to the ability of the individual to achieve these goals, as well as to the capacity of the person to cope with the situation. Cognitive appraisals are continuously operative, self-correcting, and reflective. As a situation changes, often as the result of a person's actions and reactions, cognitive reevaluations are formulated and emotional states are reconfigured.

The idea that emotions are the conscious or unconscious cognitive appraisal of an instantiating stimulus and of the ensuing physiological and behavioral responses as they bear on the plans and goals of an individual led psychoanalytic theorists to conceive of emotional states in terms of cognitive schemas (Knapp, 1991). Horowitz, Fridhandler, and Stinson's (1991) role-relationship models and control schemas and Emde's (1991) scripts are examples of the way schemas of the self and of the self in interaction with others act to attribute emotional meaning to one's subjective experience of an event. These schemas appraise various dimensions of an interaction with the overriding aim of determining whether the interaction facilitated or inhibited the attainment of the self's adaptive or wished-for goals. So conceptualized, the schemas proposed by these theorists determined a patient's emotional experience in treatment; they were considered to be the same schemas from which the patient's transference reactions to the analyst issued. The analyst could now interpret the patient's emotional experience as an evaluative aspect of the transference (Blum, 1991; Horowitz et al., 1991; Knapp, 1991).

Bucci's Multiple Code Theory (Bucci, 1997, 2001) significantly advanced the use of the cognitive appraisal in addressing the way psychoanalysts conceptualized emotional behavior, and, more importantly, provided psychoanalysts with a new way to work with emotional experience. Bucci (1997, 2001) distinguishes cognitive schemas from emotional schemas. Cognitive schemas organize our declarative knowledge whereas emotional schemas organize and interpret our subjective and interpersonal worlds. Emotional schemas come into existence and are developed through repeated interactions with others. Like Stern's (1985) Representations of Interactions that have been Generalized (RIGs), these schemas represent the self in interaction with the social environment. They thereby enable us to infer our own and others' subjective experience. These schemas also specify programs of response in specific situations as well as make it possible for us to anticipate the behavior of others (Bucci, 1997, 2001). In this way these schemas are similar to the "how to" implicit behaviors that Lyons-Ruth (1998) and the Boston Change Group and Schore (1994, 2000) believe organize affective experience and interpersonal relations.

Like memory schemas in general, emotional memory schemas are changed by the very interactions they interpret, thereby enabling new information to revise what we know. They are similar to cognitive schemas in that they operate both consciously and nonconsciously.

The essence of Bucci's (1997) Multiple Code Theory lies in her reconfiguration of the cognitive and emotional schemas described above in terms of the ways in which the information in them is processed and represented. Bucci proposes that information contained in a schema is processed in three modes: subsymbolic, nonverbal symbolic, and verbal symbolic. These three modes interact with one another in human cognition to make the information contained in a schema meaningful and amenable to elaboration in reasoning and fantasy.

Emotional schemas differ from other types of memory schemas in that they "contain a dominance of subsymbolic elements—actions and sensory and visceral reactions—that constitute the schema's 'affective core.' The bodily components are represented in multiple subsymbolic formats; the object of the schema—the people toward whom the actions and reactions are directed—are represented in the nonverbal symbolic mode. The contents [of the schema] continue to be elaborated in nonverbal and later in verbal form, throughout life" (Bucci, 2001, pp. 49–50).

Bucci grounds her notion of subsymbolic mentation on parallel-distributed processing models of information management (Rumelhart & McClelland et al., 1986) in which physiological information from all sensory, visceral, and motor systems is processed simultaneously along multiple channels. This process is similar to Edelman's (1987, 1992) reentrant mapping, in which a sensation or an emotion is constituted by the simultaneous mapping of various somatic aspects of the experience. What emerges from this parallel processing is an holistic, visceral sensation, an affective core, that resembles Damasio's (1999, 2003) proto-self, and Edelman's (1987, 1992) core self, structures that are at the center of emotional experience.

Subsymbolic processing enables us not only to have an intuitive feeling about someone or something, but, by schematizing how the senses and motor behaviors have interacted over repeated iterations of a particular experience, event, or action it also makes possible the coordinated actions of the athlete or the artist. At the same time, although subsymbolic processing usually operates nonconsciously and automatically, permitting us to execute adaptive behaviors seamlessly, it can also be the focus of intention that is under deliberate conscious control.

As noted above, subsymbolic processes do not alone constitute emotional schemas. In order for a schema to operate adaptively and effectively, subsymbolic processes must be combined with the symbolic components. Indeed, it is the symbolic components that make affective experience knowable and meaningful. For Bucci (1997, 2001) it is the connection of subsymbolic experience to nonverbal symbols such as images, and then to linguistic symbols such as words that is at the heart of the Multiple Code system she posits. Verbal and nonverbal symbols not only enable us to represent and understand emotional experience, but we can manipulate, transform, and combine symbols to create new meanings, ideas, and new interpretations of experience. However, because subsymbolic, affective experience is contextualized by symbolic representations of the situations and others with whom an individual's affective states are generated, psychopathology results from the dissociation of the subsymbolic affective component from the symbolic components that give it meaning.

In the analytic setting, as in life, patients often experience intense arousal but cannot label it or understand it. It is a state similar to Stern's (1997) unformulated experience. The

emotions are dissociated from the symbolic data that would give the emotions meaning, thus preventing traumatic experience from being known and keeping forbidden meanings from being associated with lived experience. Being unable to symbolically represent the dissociated emotional state not only prevents the patient from knowing its meaning, but also makes it impossible for the patient to verbally communicate his or her subjective experience to the analyst. Thus, the patient often somaticizes the unformulated experiences, enacts situations with the analyst in which the emotions are expressed or created within the analyst, or acts them out in other ways.

From the perspective of treatment, Bucci (2001) proposes that the aim of the analyst's interventions is to repair the dissociation, thereby giving meaning to the unformulated, subsymbolic experience. Thus, Bucci's position is similar to that of contemporary relational psychoanalysts who focus their interventions on the identification, articulation, and repair of dissociated emotional experience (Bromberg, 1993, 1996; Davies, 1996; Hirsh, 1994; Mitchell, 1988, 1993; Stern, 1998). Bucci's theory provides for this school a cognitive basis upon which to intervene.

Bucci's (1997, 2001) method of referencing subsymbolic experience to its symbolic components formalizes the empathic modes of relating and listening that practitioners of many schools of psychoanalysis have seen as central to apprehending and responding to the patient's affective communications (e.g., Gray, 1993; Schwaber, 1981, 1996; Stolorow et al., 1987). It is a process that begins with the analyst symbolizing, first nonverbally with images and then verbally, the range of internal states and reactions the analyst is having. The analyst's reactions are his or her responses to the patient's nonverbal subsymbolic communications. These reactions become the fodder for the analyst's interpretations not only of his or her own reactions, but also of the patient's subjective experience as it is expressed in the interaction between them. Bucci likens the process to what Ogden (1994) describes as the analyst's experience of the "analytic third" that gives the analyst an intersubjective window into the patient's unconscious experience. Having inferred the patient's subjective states the analyst can "intervene in such a way as to activate the imagery that is missing for the patient, to enable the referential process, symbolizing the subsymbolic contents, and enabling connections to words. If the words are effective, they will evoke imagery for the patient that connects to his own somatic and sensory experience. . . . When the patient has generated the imagery that connects to and symbolizes the processes of his own affective core, he will then be able to generate his own narratives on the basis of this. Whatever the nature of the technical means, the pathway of emotional information processing that is sought is the same—to enable the patient to connect subsymbolic experience to symbolic representations that may be spoken in words" (Bucci, 2001, pp. 61–62).

Though Bucci acknowledges that the process of subsymbolic communication is bidirectional and that the emotional experience of the analyst does have an influence on the patient, she does not specify how the bidirectionality operates. Levin (1980, 1997), who proposes a cognitive-based theory of emotional experience that is very similar to Bucci's model, does.

Levin (1980, 1997) opines that memories, especially emotional memories, are encoded in multiple hierarchically ordered levels of experience, with the lowest level being the various sensorimotor schemas that organize sensory and motor experience. These schemas are similar to Bucci's subsymbolic schemas. The next higher levels are more complex, episodic memories of the self in interaction with the social environment that retain their sensorimotor qualities but are also amenable to nonverbal symbolization. The final layers are those amenable to symbolization, and especially to the verbal symbols that narrates

and attribute, meaning to these memories, and that can be transformed and manipulated to enable logical thought. Although the layers interact to formulate a memory or an adaptive experience, they don't always interact with one another, especially when layers have been defensively, neurologically, or experientially sequestered.

Like Bucci, Levin (1980) acknowledges that much of the emotional experience of the patient and the analyst is conveyed to the participants subsymbolically through sensorimotor channels, such as vocal tone and pacing, and is apprehended and encoded in physiological schemas. Levin too sees the task of the analyst as linking the subsymbolic, sensorimotor schemas and episodic memories to the symbolic schemas that meaningfully interpret these experiences in both one's own experience and that of the patient. Levin, however, goes further than Bucci in suggesting that it is the communication of the analyst's affective experience that activates in the patient the synthetic processes that link together the sensorimotor and symbolic levels of experience.

Levin (1980, 1997) believes that the analyst's emotional experience of the patient and his or her understanding of that experience within the transference is best expressed to the patient in the form of transference interpretations that contain metaphors. Levin opines that interpretative metaphor best activates the synthetic processes within a patient, because "metaphors cross modalities; they relate one sensation to another and the various hierarchical levels of experience of experience to one another" (Levin, 1980 p. 240). Levin is careful to note that the metaphor is not solely a verbal-symbolic communication, but that the way in which a metaphor is expressed conveys much of the metaphor's affective meaning. Although these nonverbal communications facilitate and enhance transference learning, Levin (1997) strongly advises that interpreting the transference as a resistance to remembering and working through is still the primary and best way of conducting an analysis because it puts into language what is otherwise not available to the processes of being remembered.

### Functional and Discrete Theories of Emotion

In the last several years neuroscientists employing new techniques for studying and imaging the brain and for mapping its structure have issued an extensive body of research on the nature of emotional experience (for reviews, see Damasio, 1999, 2003; Edelman, 1992; Izard, 1977, 1993; LeDoux, 1996, 2002; Panksepp, 1998; Schore, 1994, 2003a). This new research provided physiological and observational support to the earlier psychoanalytic theorists, such as Clyman (1991); Emde (1991), and Horowitz (1988), who reckoned that emotional experience did not derive from cognitive interpretations of physiological arousal alone but from emotional schemas as well. Because many new theories of emotion have emerged from this research, I can only highlight their common features in summarizing what has come to be thought of as the functional and discrete theories of emotion. The central revelation that the scientific study of emotion has brought us is that our brain is as much, if not more, an emotional organ as it is a cognitive one—a fact that psychoanalysts have known since Freud began his research, but a perspective that modern science had actively denied for decades (LeDoux, 1996).

Damasio (1999, 2003), Izard (1992, 1993), LeDoux (1996, 2002), and Panksepp (1998, 2000) conceptualize emotions as systems of homeostatic regulation that are designed to solve the basic problems of life and to ensure survival automatically, without conscious self reflection or analysis. These homeostatic processes reflect the operation of neural networks, most of which are innately constructed, that detect problems or oppor-

tunities within an organism or external to it. These processes then create the most beneficial situation for the organism's self preservation and efficient functioning by means of action that either resolves the problem or takes advantage of the opportunity.

Emotions are evidence of the body adjusting to internal or external changes. This is true for the basic emotions, such as fear and joy, as well as for the more complex social emotions, as envy and affiliation. Damasio (2003) and LeDoux (1996) distinguish feelings from emotions by noting that emotions are actions or behaviors that involve the body adapting to its environment whereas feelings are the mental representations of these accommodations. Feelings are conscious manifestations of the neural maps that represent these nonconscious adaptive processes. "Emotions play out in the theater of the body," reflects Damasio (2003), and "feelings play out in the theater of the mind" (p. 28).

As part of an organism's homeostatic system, posits Damasio (2003), emotions are a tier in the hierarchy of embedded regulatory functions. At the lowest rung are metabolic systems that protect the body and transform energy into a usable form. Here we find the basic reflexes and the immune system. Next in the hierarchy are pain and pleasure behaviors, followed by drives and motivational systems such as hunger, thirst, and sex. Built upon all of the preceding levels of regulatory processes are the emotions proper, including first the vitality affects that express the visceral effects of the regulatory processes themselves, then the basic emotions, such as fear, sadness, and happiness, and finally the social emotions, such as shame, envy, and admiration. Each of these emotions emerges from those below with the earlier regulatory responses embedded in the more complex behaviors.

Damasio (2003), LeDoux (1996), and others (Izard, 1993; Panksepp, 1998, 2000; Schore, 1994) posit that emotions operate in the following manner: Something changes in the internal or external environment of an organism that will affect its current life status. This stimulus can be an actual event that is perceived by a cortical sensing area or an experience recalled from memory. In either case the neural pattern of the stimulus and its action on the body are relayed along several parallel pathways to the areas of the brain that nonconsciously receive and interpret the incoming stimulation. These emotion-triggering areas are the amygdala, the ventromedial prefrontal cortex, the supplementary motor area, the cingulate, and the periaqueductal gray. These triggering sites propagate signals to sites in the brain that execute regulatory actions. The emotion-execution sites include the hypothalamus, the basal forebrain, and some areas of the brain stem. These execution sites instantiate regulatory action in the body through neural network transmissions or through the action of neurotransmitters and hormones.

Each emotion deals with a specific adaptive task or life problem. As an adaptive function, a particular emotion has an evolutionary history that has linked together a specific set of stimuli that trigger the emotion, a unique appraisal mechanism, and a particular set of regulatory responses. No two emotions will have the same functional structure or operation (Izard, 1992, 1993; LeDoux, 1996; Panksepp, 1998). In fear, for example, the activating stimulus pattern travels in parallel from the sense organs to the sensory thalamus and sensory cortex. Both of these areas send information to the amygdala, but the subcortical link from the thalamus to the amygdala is faster, though it provides only a crude picture of the external world, starting the amygdala's interpretative processing of the fear-worthiness of the stimulus significantly before cerebral involvement. If the evaluation indicates danger, impulses travel from the amygdala to the hypothalamus, which triggers autonomic nervous system activity, such as increased heart rate, through the secretion of hormones and neural transmitters, and to the brain stem central gray, which triggers behavioral responses such as freezing (LeDoux, 1996).

Alternatively, in play, according to Panksepp (1998), the activating stimulus is sent along the emotional pathways that course between the medial thalamic and anterior cingulate zones and then on to the diencephalon for action.

What is important to note about emotional behavior is that a stimulus is interpreted and a regulatory action executed subcortically. Even complex blends of emotions, such as angry-hostile and angry-sad, can arise solely from the subcortical interaction of discrete emotions (Izard, 1992; Izard, Ackerman, Schoff, & Fine, 2000). From the functional/discrete perspective, cortical involvement occurs after the subcortical emotional processes have begun their operation (Izard, 1993; Panksepp, 1998). In conceptualizing emotional behavior as arising from specific subcortical networks that then entrain cerebrally processed information that pertains to the particular operative emotion, the functional/discrete theories are proposing a process that operates in reverse of that suggested by cognitive appraisal theories (Bucci, 2001; Levin, 1980).

Cortical involvement serves to correct or enhance these regulatory processes (Izard, 1992). LeDoux (1996) notes that emotional responsivity tends to be crude, generalized, and stereotyped, and he asserts that various areas of the cortex can inhibit an emotional response and or modify it to better fit the current situation. Damasio (2003) too observes that cortical input serves to enhance an emotional experience by adding information about what in the external environment is impinging on the self to produce the emotional behavior, thereby creating an experience that encompasses body, self, and environment. Long-term autobiographical memory and feedback from the behaviors and actions taken also influence the emotional processes as an emotion develops from its inception (Damasio, 1999; Izard, 1992; LeDoux, 1996). Recent neurophysiological investigations have documented the specific cortical-subcortical connections that underlie these corticolimbic processes and have presented data that support the manner in which the cortex and limbic system influence one another (for reviews see Edelman, 1992; LeDoux, 1996, 2002; Panksepp, 1998; Schore, 1994).

What I have been describing so far is emotional behavior, not feelings. The sequence of steps in the description of fear behavior above does not lead to the feeling of fear. Rather, this process produces defensive behavior. The discrete/functional theorists see emotion as a nonconscious process of physiological regulation and behavioral action in the service of adaptation. The problem at present is that the science of emotion has not yet determined how we experience feelings, although each of the theorists cited above has an opinion about how this process occurs. What all these theorists hold in common is the belief that what we feel is a matter not of emotion but of consciousness. From this perspective, I believe that Damasio (1999, 2003) presents the most comprehensive theory of feelings. A theory of feelings and their relationship to consciousness is supported by the work of Gerald Edelman and Giulio Tononi (2000) and Allan Schore (1994). Alternative, yet closely allied, views of how emotions emerge into consciousness as feelings are expressed by Thelen and Smith (1994); Lewis (1995); Freeman (2000), and LeDoux (1996). A detailed explication of the transformation of emotions into feelings will take us too far afield from the focus of this paper, and the reader is referred to the authors cited for a more in-depth explanation.

What it is important to know about feelings is that they are the mental representations of ongoing regulatory (emotional) processes. Feelings do not initiate these processes, but are themselves the product of these processes. The conscious experience of feelings, however, can influence ongoing emotional behavior through self-reflective analysis and deliberate action (Damasio, 2003).

Above all, what these new theories of emotion have done is to connect body and mind

into a single, unified system. The mind is formed in the process of the body adapting to the environment, and the body is influenced by the mind's organization of these somatic inputs. The view that one can affect the mind through acting on the body corroborated the work of developmentalists whose observations of mother-infant interactions uncovered the ways caregivers organize and regulate a child's physiology and emotional experience (Beebe & Lachmann, 2002; Sander, 1985; Schore, 1994, 2002; Stern, 1985).

Armed with new theories of emotion and data from studies of the ways caregivers shape and regulate infants' emotional processes, psychoanalysts began to rethink how psychoanalysis affects a patient's emotional processes. Early attempts toward such a theory focused on the analyst mirroring a patient's emotional experience through his or her emotional attunement with the patient's subjective states (Emde, 1990; Kohut, 1959, 1971; Stolorow et al., 1987; Wolf, 1993). Emotional attunement with the patient's experience was developed and expanded by Lichtenberg et al. (1992, 1996) and others (Beebe & Lachmann, 2002; Ogden, 1997; Stern, 1985), who posited that an analyst can right dysfunctional emotional processes through his or her emotional behavior toward the patient. The analyst immerses himself or herself in the emotional state of the patient and then through his or her own regulative processes aids the patient in containing and transforming his or her emotional states. These state-sharing and regulative emotional behaviors are communicated to the patient in the analyst's expressed emotions, as well as in the tones of voice, rhythms of speech, facial expressions, gestures, and glances that accompany what the analyst says or does. Schore (2000) and Tronick (1998) suggest that the analyst's emotional behavior toward a patient affects alterations in the neural networks that organize the patient's affective experience.

The view that in the context of a shared emotional experience the analyst can impact the affective states of a patient encouraged practitioners to be optimally responsive to the specific needs of a patient as well as to repair disrupted emotional connections through the analyst's emotional behavior toward the patient (Bacal, 1990; Beebe & Lachmann, 2002; Wolf, 1993). Heightened moments of emotional connection between the patient and the analyst and the repair of disrupted states of connection have become pivotal elements in the therapeutic action of contemporary psychoanalytic technique (Lachmann & Beebe, 1996; Stern et al., 1998).

The Boston Change Process Study Group (Lyons-Ruth, 1998; Stern et al., 1998) and others (Fonagy, 1999a, 1999b; Miller, 1999, 2004a; Schore, 1994, 2002, 2003a) argue persuasively that the essence of change in psychoanalytic treatment embodies alterations in the nonconscious procedures through which a person adapts to his or her environment. They propose that in the context of an emotionally shared experience the analyst's spontaneous emotional behavior toward a patient effects change in the emotional procedures that are organizing the patient's mind.

Bacal (1990; Bacal & Herzog, 2003) and others (Aron, 1996; Lichtenberg et al., 1996; Miller, 1999) advanced this idea further by proposing that the therapeutic action of psychoanalysis lies in the corrective emotional experiences that naturally and spontaneously occur when a patient interacts with the analyst. For many contemporary analysts enactments have become the venue for therapeutic change (Hirsch, 1997; Levenson, 1972; Mitchell, 1997). Other theorists consider the context of change in psychoanalysis to be the attachment relationship between the patient and the analyst (Fonagy, Greeley, Jurist, & Target, 2002; Lyons-Ruth, 1998; Miller, 1999, 2004a; Schore, 2003b; Stern et al., 1998). They argue that it is in the formation and maintenance of the patient's attachment to the analyst that the emotional procedures that organize the patient's senses of self and object

relations are open to modification through the analyst's emotional interactions with the patient (Lyons-Ruth, 1998; Schore, 2003b).

Students of affect and interpersonal relations understood that emotional behavior was not regulated in a unidirectional manner, but that infants reciprocally influenced their caregivers' behavior, and that patients influenced analysts' behavior (Aron, 1996; Sander, 2002; Schore, 1994; Stern et al., 1998). The mutual regulation of emotional states required theorists to rethink the nature of affectivity and to consider how emotional states are constituted and regulated. In the consulting room not only must one consider the affect of at least two individuals on the formation of any one individual's emotional experience, but one must also consider the influence of the context in which a relationship occurs on the generation of emotional behaviors and on the self-states formed (Fogel et al., 1992; Orange, Atwood, & Stolorow, 1997; Stern et al., 1998). In a like vein, Emde (1990) and Fonagy (1999a, 1999b) were trying to work out the relationship between the procedural structures that organized a person's emotional and relational behavior and the content of the long-term, declarative memories that meaningfully interpreted the emotional behavior. These concerns were successfully addressed by the introduction of a dynamic systems theory of affect.

### Dynamic Systems Theory of Emotion

As part of a comprehensive approach to the understanding of interpersonal behavior and psychological phenomena, dynamic systems theory has been used to explain emotions and emotional behavior (Edelman, 1987, 1992; Fogel, 1993; Freeman, 1995, 2000; Lewis, 2000; Mascolo, Harkins, & Harakal, 2000; Sashin & Callahan, 1990; Schore, 2000). A dynamic systems theory of emotion provides psychoanalysis a clearer picture and a more robust explanation of the dynamic, interactive nature of emotional experience. In describing the multiple factors impinging on the formation of emotions, dynamic systems theory enables the analyst to not only identify and manage these factors in an heuristic, therapeutic manner, but also enables the analyst to account for the complex interactions of emotion, meaning, and context in the therapeutic process.

From a dynamic systems perspective, emotions are self-organizing products of psychological and physiological processes that arise in the context of interpersonal transactions (Freeman, 2000; Fogel et al., 1992; Lewis, 2000; Mascolo et al., 2000). One way of initially understanding the dynamic systems theory of emotion is to see the theory as a blending of the cognitive appraisal scheme of emotion with the discrete/functional models of emotion and then to imagine this combined theory as operating within the context of specific social transactions.

The dynamic systems theory of emotion differs from the other theories of emotion described earlier in that it conceptualizes emotions not as discrete states of being or innate or constructed interpretative programs but as ongoing, continuous processes (Fogel, 1993; Fogel & Thelen, 1987). As such, emotions are not seen as a succession of discrete states but as an ever-present, constantly changing set of processes that influence and are influenced by the social context within which they occur (Lewis, 2000).

Emotions are conceptualized as self-organizing, dynamic processes that are constituted by the interaction of the many components that are related to an individual's adaptive activity within a particular social context. Emotions come into being when the subcortical arousal/adaptive systems join with the cerebral appraisal/interpretative systems and with motor action systems. Motor action systems are interlocking schemes of

voluntary and involuntary control that issue homeostatic and adaptive actions in response to the activity of the subcortical hormonal and behavioral systems, and in reaction to the motivational intentions emanating from the cognitive appraisal system. These three component systems (the subcortical adaptive/arousal system, the cortical interpretative system, and the motor system) mutually regulate each other within a social context. The concept of mutual regulation implies that although the components have integrity as distinct systems, the individual systems are not independent. Each of the systems adjusts itself to the ongoing and anticipated outputs and activities of the others. Through this process of mutual regulation, the component systems jointly organize, modulate, and influence one another. When these component systems mutually regulate each other, they become part of the very process of each other's functioning.

To paraphrase Mascolo and colleagues (2000), this process of mutual constraint and influence works in the following manner. Throughout any given activity, motive-relevant appraisals continuously influence ongoing adaptive/arousal systems. Simultaneously, physiological arousal provides continuous feedback to the appraisal and action systems. In so doing, arousal functions to amplify and select for conscious awareness, and further action the very appraisals that helped initiate the affective reactions in the first place. As appraisals continue to be modified by changes in the adaptive context, adaptive/arousal systems are correspondingly altered, producing changes in physiological arousal and behavior. Appraisals not only modulate arousal, but they also activate action systems in ways relevant to one's motives. Physiological arousal, similarly, not only selects appraisals but also organizes and intensifies actions. Actions and their social effects provide continuous feedback to the arousal and appraisal systems that modulates, transforms, or even terminates a given emotional experience. Neither appraisal nor arousal nor action has priority in this process, and one cannot ordinarily function without the others.

The arousal, assessment, and motor components can interact with one another in an infinite number of ways in a given social context, producing any number of common and nuanced emotional states. Yet emotional processes, like all dynamic systems, have a tendency to settle into a finite number of stable patterns (Izard et al., 2000; Thelen & Smith, 1994). These patterns correspond to the common basic and complex emotional states, as, for example, anger, joy, fear, shame, hostile-depression, and envy. Coherent emotions are thus stable patterns of activity that are constructed and continuously maintained by the dynamic interaction of the emotion's participating components (Fogel, 1993; Lewis, 2000).

Recent neurobiological findings support a dynamic-system, continuous-process understanding of affect. Emotional behavior is thought to be mediated at corticolimbic convergence centers such as the hubs located in the ventromedial prefrontal cortex (Damasio, 1999; Schore, 1994) and in the entorhinal cortex (Freeman, 1995, 2000) that receives its output. At these centers, cognitive appraisals are continuously entrained with emotional circuitry from the subcortical limbic system to form a coemergent wholeness of experience. Freeman (2000) characterizes this coemergence as a global, self-organizing intentional state. Owing to its location at the interface of the cortex and subcortex, posits Schore (1994, 2000), the ventromedial prefrontal cortex is one of the few regions of the brain that is privy to signals about virtually any activity taking place in our mind or body. It functions as a senior executive of limbic arousal, exercising control over both the central nervous system and the autonomic nervous systems, and, because of its connections with the spinal cord, it also mediates feedback from bodily systems involved in visceral regulation. Being directly connected to the sensory and memory areas of the cortex as well as to both limbic circuits, this convergence zone can associate the sensory perception of

an environmental event with adaptive modifications of body states, enabling adaptive responses to changes (or expected changes) in the external environment that are cognitively appraised as personally meaningful. The activity of this prefrontal system is also responsible for the regulation of motivational states and the adjustment of emotional responses. It is specialized for generating and storing internal working models that contain information about state transitions, physiological regulations, and the contexts that precipitate them. The prefrontal system is thus specialized for synthesizing cognitive-emotional interactions and for processing the behavioral feedback essential for affect regulation and adaptation to the social environment.

Dynamic systems theory specifies that a person's emotions self-organize in the process of adapting to one's social milieu. This means that the physiological, cognitive, and motor processes that secure adaptation to the surround and produce emotional experience within an individual do so in relationship to these same emotional-adaptive processes within the individuals who together constitute the social context (Freeman, 2000; Fogel, 1993; Fogel & Thelen, 1987; Lewis, 2000; Mascolo et al., 2000; Schore, 1994, 2000). This process of coordinating emotional-adaptive processes between the participants to a social interaction occurs automatically, nonconsciously, and continuously, and results in the joining together of the participants into a dynamic system of which each individual is a participating member (Sander, 1985, 2002; Thelen & Smith, 1994).

Information and physiological arousal are continuously modified and negotiated through every aspect of the communications between the members of an interacting system such that meanings, actions, and emotions are jointly constructed by the participants. Because all parties to an interaction are simultaneously adapting to one another and are thus concurrently active, no one person can be regarded as the single sender, receiver, or originator of a message. Partners coregulate each other as they adjust their actions to the ongoing and anticipated actions of the other (Fogel, 1993; Sander, 1985, 2002; Thelen & Smith, 1994). Thus, any one person's emotional experience is product of his or her emotional interactions with all those who form the here-and-now social context. Emotional experience, from this perspective, is truly coconstructed.

Because the participants to an interaction form a dynamic system in the process of adapting to one another, the ways in which the members relate to one another define the nature of that system, and the ways in which the participants coordinate their emotions give the system as an entity an emotional character (Sander, 2002; Schore, 1994; Stern, 1985). The emotional character of the dynamic system, in turn, influences the adaptive procedures and emotions of the individual members of the system by limiting the procedures and emotions that can emerge to variations on those that already compose the system. The system itself constrains, in a top-down manner, the kinds of emotional experiences the individual members can have at any given time. The emotions experienced by any one individual are thus the product of a three-way interaction between his or her own emotional processes, those of the persons he or she is interacting with, and the emotional character of the interaction itself (Granic, 2000; Lewis, 2000; Mascolo et al., 2000; Sander, 1985, 2002).

Over time, dynamic systems evolve into a finite set of patterns of interaction that the systems transition between when perturbed by internal or external forces. These patterns of interaction define the different emotional states a system can take. An ongoing relationship between individuals will tend to go through a finite set of emotional relations that repeat under particular conditions (Lewis & Junyk, 1997). This means that individuals will be pulled to experience a certain set of feelings in a particular type of interactive context.

Transformations in emotional experience take place within the context of adaptive action (Freeman, 2000; Lewis, 2000; Mascolo et al., 2000; Schore, 2000; Thelen & Smith, 1994). This means that emotions change in relation to alterations in the actual adaptive activity of the participants to an interaction. As adaptation is a continuous process, emotions are constantly being adjusted to the here-and-now social context.

Emotions change because of modifications in the components that constitute the particular emotion. Transformations in emotion may be initiated by alterations in one or any combination of the arousal, interpretative, or motor components of an emotion within an individual, as a result of a shift in the emotional state (or in its various components) of another member of the system, or because of a change in the nature of the system itself. This means that as one component of the emotional system changes all of the other components adjust to that change. Thus as the emotions of one member of a system change, the emotions of all the other members also change, as does the emotional character of the relationship itself (Fogel, 1993; Granic, 2000; Mascolo et al., 2000).

This brief description of a dynamic systems approach to emotion has revealed the complex nature of emotional experience, highlighting the multiple interacting internal and external factors that contribute to an individual's emotional experience. In applying this theory of emotion to the psychoanalytic situation, the complex emotional interactions that impact the patient and the analyst are illuminated, as is the centrality of the analyst's emotional behavior in the formation and transformation of the patient's emotional experience, in the creation of a therapeutic relationship, and in fostering mutative change.

From a dynamic systems perspective, the analyst's emotional engagement with the patient is a crucial element in the treatment process because the analyst's emotions are used by the patient in formulating his or her own emotional states. The patient coordinates his or her emotional experience with the analyst's emotional state as it is communicated in the analyst's emotional behaviors toward the patient, especially in the vitality, quality, and tenor of the analyst's spoken words and phrasing of ideas, tones of voice, facial expressions, and demeanor. In like fashion, the analyst's own emotional experience is formed in relationship to the patient's emotional communications. Thus, the emotional experience of the patient and the analyst is coconstructed on a continuous basis as the physiological arousal, meaning, and motor behavior of each of them influences these same emotional processes in the other. From a dynamic systems perspective, the emotional experience of the patient cannot be understood apart from the emotional experience of the analyst and vice versa.

It follows that the analyst is not simply responding to a patient's emotional behavior. In adapting to the therapeutic situation, the analyst is also initiating emotional behavior in moving toward actualizing his or her own intentions and goals. The analyst works to engage the patient in ways that cause the patient to recognize and respond to the analyst's emotional-adaptive intentions, states, and goals. This process of adaptation occurs automatically, continuously, and for the most part nonconsciously. Simultaneous with the analyst's adaptive actions, the patient is similarly trying to get the analyst to acknowledge the patient's own emotional states and intentions and to respond in a particular way. These affect-laden negotiations between the patient and the analyst define the therapeutic interaction and give it an emotional character. The emotional nature of the analytic interaction embodies the emotions, intentions, and goals of each of the participants. The analyst's emotional behaviors contribute as significantly to the character of the analytic interaction as do the emotional behaviors of the patient.

The emotional character of the analytic relationship, in turn, influences the emotions of the patient and the analyst as well as the nature of their interaction by limiting the

emotions, meanings, and behaviors available to those qualities that reflect the relationship's emotional demeanor. By so constraining the emotional dialogue between the patient and the analyst, the emotional character of the relationship colors the meanings, emotional tone, aim, and efficacy not only of both participants' actions, but also of the analyst's interventions and interpretations. A hostile meaning or objective can be attributed to healing and reparative actions and interpretations, for example, if the emotional character of the interaction is acrimonious. The emotional behavior of the patient and the analyst is, therefore, determined in a significant way by the emotional character of their here-and-now relationship.

Over time the patient—analyst dynamic system organizes itself into a limited set of patterns of interaction between the patient and the analyst. Each pattern represents a particular type of patient—analyst emotional configuration, and expresses a specific set of meanings and behaviors. The system courses between these patterns of interaction when disruptions occur in the therapeutic relationship. These repetitive patterns can be thought of as transference-countertransference states of the system. Given the coconstructed and interdependent nature of the emotions of the patient and of the analyst that form this system, a patient's transference configurations can only be understood in relationship to the analyst's countertransference. In addition, because these patterns of behavior emerge out of the emotional negotiations between the patient and the analyst, transference-countertransference configurations are expressed in the form of enactments.

The analyst affects the patient through his or her emotional behaviors and the meanings the analyst attributes to these behaviors. Each time the analyst alters the way he or she physiologically processes information, attributes meaning to an event, or modifies his or her behavior, a change is effected in the way the patient processes these variables within him- or herself. Every adaptive action on the part of the analyst impacts the patient, changing some aspect of the patient's emotional experience. Thus, as many writers have suggested, it is often the analyst's spontaneous, authentic, and genuine actions that effect the greatest mutative change in the patient. The patient's adaptive behavior also effects change in the analyst's emotional states. As one member of the therapeutic system changes so does the other and the system itself.

Given that emotions, meaning, and behavior mutually influence and regulate one another, the analyst does not have to favor one type of intervention over another. Interpretations of meaning, emotional regulations, and enactments all moderate one another and have mutative effects on the patient when they are used in the service of understanding or transforming the here-and-now experience of the analytic dyad. In conclusion, a dynamic systems perspective on emotional experience in the treatment setting places the emotional engagement of the patient and the analyst at the center of psychoanalytic treatment, and establishes the analyst's emotional behavior as a significant factor in fostering change.

## Discussion

With each advance in our knowledge about the nature of emotion, psychoanalysts' understanding of the role of emotion in the psychoanalytic practice has progressed. As analysts came to understand the relationship between the schemas of emotion and the schemas of declarative knowledge, practitioners began to use their emotional reactivity and their empathic resonance with the patient in new ways. They saw their own feelings and reactions to the patient's emotional states as windows into the patient's subjective,

emotional experience, much of which was developmentally unformulated, defensively sequestered, or not well articulated. In symbolically representing in images and words the analyst's empathic resonance and emotional reactivity, the analyst transforms the patient's emotions into meaningful feelings. These feelings in turn not only inform the patient about the meaning of his or her emotional experience but also about the nature of his transference connection to the analyst.

As the adaptive function of emotional behavior became more clearly articulated, psychoanalysts became aware of the way their own emotional behavior affected the emotional states of the patient. Analysts began to regulate, contain, and metabolize the patient's emotional experience through the way they themselves emotionally processed and expressed their experience of their own and the patient's emotional behaviors. The exchange of emotional behaviors between the patient and the analyst was now recognized as the context within which the meanings that characterize the nature of the therapeutic interaction emerged.

Dynamic systems theory casts emotion in a truly interactive context, enabling analysts to appreciate the coconstructed nature not only of the meanings attributed to the analytic interaction but also of their own and the patient's emotional states as well. Psychoanalysts can now trace the emergence of their own and the patient's emotions from the exchange of emotional behaviors between them. As the emotions of the patient and the analyst self-organize in reference to the emotional behaviors of the other, the ways the patient and analyst constitute, regulate, and interpret their emotions directly impact the construction of emotion in both persons. As the patient and the analyst work to optimally adapt to the nature of their relationship, the emotional states and behaviors of each of them are simultaneously impacted and changed. Concurrently, their emotional exchange gives their relationship an emotional tone that in turn constrains the emotional states and behaviors accessible to them, the meanings available to interpret their emotional relationship, and the types of therapeutic interventions and transformations open to the analyst. The analyst can now formulate his or her interventions and interpretations to take advantage of the ways in which emotion, meaning, relationship, and context interact in the formation of subjective experience. Mutative change is always systemic, effecting changes in all components that constitute the emotional relationship between the patient and the analyst. The emotional engagement of the patient and the analyst thus constitutes the essence of the therapeutic action in psychoanalysis.

The context within which the analyst works, from this dynamic systems perspective, is a complex emotional system that is both stable and constantly in flux. As the analyst manages the multiple interacting influences on the analytic process and on the emotional states and interpretations that carry the analytic dialogue while simultaneously experiencing the effects of his or her own adaptations to the patient's emotional behavior, new ways of monitoring, influencing, and interpreting the patient-analyst interaction are required. These therapeutic processes, configured in a dynamic, interactive, and continuous manner, form the analytic context to be illuminated with clinical material in the companion paper to this essay (Miller, in press).

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