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Emotions, the Great Captains of Our Lives: Their Role in the Process of Change in Psychotherapy

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A view of human functioning is presented in which functioning is seen as integrating head and heart, emotion and reason, in a process by which people are constantly making sense of their lived emotional experience to form narratives of told experience. Because much of the processing involved in the generation of emotional experience occurs independently of and prior to conscious thought, therapeutic work on a purely cognitive level of processing is unlikely to produce enduring emotional change. The questions especially relevant to psychotherapy are how we can best facilitate change in emotions rather than only changes in cognition or behavior. A theory of emotional change is presented in which change in emotion is seen as requiring that first emotions be felt and then they both be exposed to new emotional experience and be reflected on to create new meaning. The process of emotional change thus involves both new experience and new understanding. At times, people also need to protect themselves from being overwhelmed by emotions. They need to be helped to tolerate and regulate them so that emotions inform their lives rather than control them. The importance of both emotion awareness and emotion regulation in therapeutic change is thus highlighted. The article ends by reviewing research on the role of emotional processing in therapeutic change and presents six empirically based principles of emotional processing that will help move the field toward psychotherapy integration in a manner that clearly recognizes emotion as a key component of functioning and change.

Keywords: emotion, change, psychotherapy, process research

Emotions are our greatest friends and at times our worst enemies. They are the constant companions of our lives, and they govern much of what we do. As Vincent van Gogh (1889) wrote to his brother, "Don't let's forget that the little emotions are the great captains of our lives, and that we obey them without knowing it."

In this article I review the evolving understanding of the role of emotional processing in human functioning and the evidence for emotion's role in therapeutic change and illuminate how this serves as the base for an emotion-focused approach to individual and couple therapy. Emotion-focused therapy for individuals (EFT; Greenberg, 2002; Greenberg, Rice, & Elliott, 1993) and for couples (Greenberg & Johnson, 1988; Johnson, 1994), which casts emotions as the great captain of our lives, grew out of our early considerations,

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over three decades ago, of the role of emotion in therapy (Greenberg & Safran, 1984, 1987, 1989) and research on the process of therapeutic change (Greenberg, 1979; Rice & Greenberg, 1984). In these early presentations, my colleagues and I emphasized both the preconscious and the adaptive nature of emotion as well as the importance of distinguishing between primary and secondary, and between adaptive and maladaptive, emotion in therapeutic work.

Since then, due in large part to compelling findings in the affective and cognitive neurosciences (Damasio, 1999, 2003; LeDoux, 1996; Porges, 2011), emotions have clearly been shown to be an adaptive component of human functioning and not simply secondary to cognition. LeDoux (1996), for example, demonstrated that there are two different paths for producing emotion, the "low" road, when the amygdala senses danger, and the slower "high" road, in which the same information is carried through the thalamus to the neocortex. As LeDoux highlighted, the low road, fundamentally, is highly adaptive because it allows people to respond quickly to important events before complex, time-consuming, reflective processing has taken place. Damasio (1999) demonstrated that emotions work through somatic markers that automatically direct our attention toward more advantageous options, simplifying decisions and helping to solve problems, often before we are even conscious that there is a problem. Porges (2011), in his polyvagal theory, linked the autonomic nervous system to social behavior by showing how a subconscious neuroception of interoceptive signals of danger and safety controls important emotional states related to survival.

Until recently, the prevalent commonsense view of emotion, endorsed by many in psychology and psychotherapy, was that emotions were postcognitive; were disruptive to functioning; and were to be controlled, tempered, bypassed, or avoided (Beck, 1976). Control of emotion, however, is not always wise or adaptive, and overregulation or avoidance of emotion does not ensure health or happiness. Emotion gives important information about our reactions to situations, whereas inhibiting the expression of emotion can lead to impaired immune system function and poorer health (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002; Pennebaker, 1995). There also is increasing evidence of the importance of emotion knowledge and emotional intelligence (Mayer & Salovey, 1997) in enhancing social competence and healthy development.

The tide has clearly shifted now that it has become clear that emotions are a fundamentally adaptive resource, and there has been a marked shift from a cognitive to an *evolutionary* view of emotional functioning (Panksepp, 1998). As many emotion researchers have pointed out, primary emotional responses have been evolutionarily preserved because they are adaptive (Izard, 1991; Tomkins, 1963) and provide an assessment of the degree to which goals or needs have been met in interaction with the environment (Frijda, 1986). They also reset the organism physiologically, behaviorally, and cognitively to adjust to changing circumstances. They involve a hedonic tone, an action tendency, and a meaning system that influences preferences, organizes people for rapid adaptive action, and informs people of the significance of events to their well-being (Frijda, 1986; Tomkins, 1963). Emotional responses are elicited by an automatic process of evaluation of the degree to which needs, values, or goals are being met or not met in interaction with the environment (Frijda, 1986). From birth on, emotion also is a primary signaling system that communicates intentions and regulates interaction (Sroufe, 1996). Emotion thus is a primary meaning system, a primary action tendency, and a primary communication system. To access their adaptive benefits, emotions need to be processed rather than avoided or controlled.

In addition to research showing that emotion clearly is precognitive, studies also make clear that emotion interacts with cognition in a variety of important ways. Emotions, however, involve automatic, attentional, and evaluative processes more than computational or propositional forms of cognition. They therefore involve cognition in the broad sense of the term. Emotions, as well, are carriers of personal meanings in that they inform us of what is significant for our well-being. Ultimately, emotion and cognition form complex affective–cognitive structures, which have been termed *emotion schemes* (Greenberg, 2002; Oatley, 1992). These carry our emotional learning and memories and are responsible for the provision of the majority of our emotional experience. In addition, emotion and conscious thought constantly interact, in language, to create narrative meanings (Angus & Greenberg, 2011). Emotion thus is not cognition free, and ultimately we seldom have emotion without some conscious meaning.

Emotion schematic memory of an emotional episode can be seen as an information network that includes units representing emotional stimuli, somatic or visceral responses, and related semantic (interpretive) knowledge (Lang, 1994). The memory is activated by input that matches some of its representations, and those elements in the network that are connected are also automatically engaged. As the circuit is associative, any of the units might initiate or subsequently contribute to the activation process. Emotional experiences produced by these structures provide both higher order feelings, such as being on top of the world or down in the dumps, and our sense of things, such as a sense of danger or of attraction (Damasio, 1999; Greenberg, 2010). These are a level higher than the original biologically based emotion responses such as anger or sadness. These emotional responses have been informed by experience and benefited from learning. Much automatic adult emotional experience is of this higher order, generated by learned, idiosyncratic schemes that serve to help the individual to anticipate future outcomes and influence decision making (Damasio, 1999). These memory-based emotion schemes are triggered automatically and when activated, cue the amygdala and anterior

cingulate, which, in turn, lead to changes in the viscera, skeletal muscles, and endocrine, neuropeptide, and neurotransmitter systems and possibly other motor areas of the brain. These changes, together with the often-implicit meaning represented in the prefrontal cortex, generate human beings' complex, synthesized, and embodied sense of self in the world. This sense then is symbolized in conscious awareness and formed into narrative explanations of self, other, and world.

An example of this second, higher level, more cognitively complex type of emotion would be the pit in one's stomach that one might experience upon unexpectedly encountering an ex-spouse. The trigger is clearly acquired, but the process is still automatic. Regardless of whether the experience *can subsequently* be fully articulated (i.e., as to exactly what one feels and why one feels the way one does), the experience nonetheless is tacitly generated. Perhaps most important, these memory-based emotion schemes guide appraisals, bias decisions, and serve as blueprints for physiological arousal and action. They act as crucial guides, to which we often need to refer to enhance reason and decision making. These affective/cognitive/motivational/ behavioral emotion schemes are thus a crucial focus of therapeutic attention and, when maladaptive, are important targets of therapeutic change (Greenberg & Paivio, 1997).

With the advent of this view of emotion as an adaptive resource and a meaning system, rather than as something that needs to be gotten rid of cathartically, modified, or corrected by reason, the understanding of emotion's role in human relationships and psychotherapy has changed. This "new look" has begun to set a new agenda for psychological research—to determine how we can best facilitate change in emotions, treating emotions as independent variables that exist as such, rather than being secondary to cognition. Key issues for clinicians are how best to promote (a) access to and awareness of emotion and (b) the transformation of emotion.

Four key findings in emotion research help answer these questions. The first is that awareness and symbolization of bodily felt emotional experience have been shown to downregulate emotional arousal (Lieberman et al., 2004; Schore, 2003). Second, emotion has for some time been shown to influence memory, thought, and decision making (Bower, 1981; Damasio, 1999). Third, emotion has been shown to change emotion (Davidson, 2000; Fredrickson, Mancuso, Branigan, & Tugade, 2000), and finally, emotion has been shown to change memory during its reconsolidation period (Nadel & Moscovitch, 1997; Schiller et al., 2010). Research also has clearly shown that emotions, in the sense of visceromotor and somatomotor responses associated with bodily sensations, occur out of awareness (Lane, 2008). For example, emotions can be activated with subliminal stimuli (Whalen et al., 1998), and the emotional content of the stimuli can influence subsequent behavior, such as consummatory behavior, without the person being aware of such influences on behavior (Winkielman & Berridge, 2004). Thus, a great deal of emotional responding may occur without the person being aware of it. Emotions and motivations, however, do not reside in the unconscious fully formed and waiting to be unveiled when the forces of repression are overcome. Rather, they most commonly exist in an undifferentiated form consisting of sensorimotor schemes that are preideational and preverbal. Implicit emotion, or bodily felt sensations, can be transformed into discrete conscious experiences of specific emotions by putting the felt sensations into words (Lane, 2008). Through this process an individual can feel specific emotions and "know" what it is that he or she is feeling.

This research suggests a dialectically constructivist view of emotion, in which bodily felt emotions exist palpably, and that reflection on a bodily felt sense produces what we feel, while symbolization in language helps to contain highly aroused emotion. Thus we construct what we feel by attending to a bodily felt sense and symbolizing it in awareness, and our constructions are simultaneously informed and constrained by what we feel in our bodies. In addition, as I will show, we can change what we feel and remember by exposing our activated emotion to opposing emotions, and that new emotional experience leads to the construction of new narratives.

Emotional Change

A Dialectical Constructivist Perspective

Human beings actively construct their sense of reality, acting as dynamic self-organizing systems that synthesize many types and levels of information to create their experience (Greenberg & Pascual-Leone, 1995, 2001; Greenberg & Safran, 1987; Pascual-Leone, 1991). Emotional expression is itself clearly an elaborate cognitive processing task in which data are integrated from many sources in the brain (often in milliseconds), and this occurs, in the main, outside awareness. The conscious narrative flow of evaluations, interpretations, and explanations of experience—the told story of the emotion—is really based on a memory of what occurred and often comes only after the lived experience. The narrative account is significant as a record in memory of experience but often is only peripherally related to the process of generating ongoing emotion (Angus & Greenberg, 2011).

Multilevel theories that attempt to integrate a variety of different emotion-generation processes have arisen to deal with the complexity of human emotion. Leventhal (1984) was the first to suggest that sensorimotor, schematic, and conceptual levels were all involved in generating emotions, and this approach was adapted (Greenberg et al., 1993; Greenberg & Safran, 1987) to explain the role of emotion in therapeutic change. Teasdale (1999) subsequently suggested a nine-level model starting out at a sensory level and moving to an implicational tacit level of processing at the top of the hierarchy with a conscious propositional level one level

lower, whereas Power and Dalgleish (2008) proposed a three-level model similar to Leventhal's with associative, schematic, and propositional levels. In addition, a more dynamic rather than a hierarchical model of emotion construction by synthesis has been proposed by Greenberg and Pascual-Leone (2001) to explain how conscious emotional experience is generated.

The type of functioning suggested by these models, in which separate but interacting mental functions are mediated by separate but interacting brain systems, appears to be crucial in understanding a variety of areas of functioning. For example two types of memory, one explicit and more factual, the other procedural and more emotional (van der Kolk, 1994), have been demonstrated, as well as two kinds of learning, one a more conceptual, logical form of learning, the other a more perceptual and emotionally associative one (J. Pascual-Leone, 1987, 1990). These different levels help explain the difference between two ways of knowing—one more conceptual and the other more experiential (Epstein, 1994; Greenberg & Safran, 1987). More conscious, conceptual forms of processing involve facts and reasoning and are produced by the cortex, whereas more automatic associative forms of processing involve immediate experience and perception and are produced with the aid of the emotional brain. These two systems allow for "knowledge by description" (conceptual knowing) and "knowledge by acquaintance" (experiential knowing). The second is a more tacit, procedural means of generating experience, whereas the first is a more conscious declarative process of explaining experience. Meaning, as has been noted, results from the dialectical synthesis of emotion and reason. Without emotion there is no action, but without conscious organization there is no coherence. Without conscious articulation, the depth, range, and complexity of emotion cannot develop beyond its instinctual origins. Working with emotion involves symbolizing it in awareness and reflecting on it to create new narrative meaning rather than cathartically getting rid of it or habituating to it.

Through language, individuals are able to organize, structure, and ultimately assimilate their emotional experiences and the events that have provoked the emotions, and this has been shown to be helpful in processing traumatic experience (Pennebaker, 1995). Once emotions are expressed in words, people are able to reflect on what they are feeling, create new meanings, evaluate their own emotional experience, and share their experience with others. There are a number of psychotherapy studies that provide evidence for the importance of reflecting on aroused emotional experience in therapy (Mergenthaler, 1996; Watson, 1996). The implication of these is that emotional processing is best facilitated by the progressive increase and then fading away of expressed emotional arousal over the course of a session. This process involves helping clients activate emotion in the session in order to reflect on and make meaning of it.

Transforming Emotion

As well as the importance of becoming aware of emotion, it has becoming increasingly clear that it is possible to change emotion with emotion. Fredrickson (2001) has shown that a positive emotion may loosen the hold that a negative emotion has on a person's mind by broadening a person's momentary thought action repertoire. The experience of joy and contentment was found to produce faster cardiovascular recovery from negative emotions than a neutral experience. Fredrickson et al. (2000) found that resilient individuals cope by recruiting positive emotions to undo negative emotional experiences. In addition, laughter in grief has been found to be a predictor of time to recovery (Bonanno & Keltner, 1997). In a different line of research on the effect of motor expression on experience, Berkowitz (2000) reported a study on the effect of muscular action on mood. Subjects who had talked about an angering incident while making a tightly clenched first reported having stronger angry feelings, whereas fist clenching led to a reduction in sadness when talking about a sad incident. This indicates the effects of motor expression both on intensifying congruent emotions and on dampening other emotions. Thus it appears that the muscular expressions of one emotion can change another emotion. Davidson (2000) also suggested that the right hemispheric withdrawal-related negative affect system can be transformed by activation of the approach system in the left prefrontal cortex. This principle of changing emotion with emotion thus applies not only to positive emotions changing negative ones but also to changing maladaptive emotions by activating dialectically opposing adaptive emotions (Greenberg, 2002).

Thus, in therapy, maladaptive fear or shame, once aroused, can be transformed into security by the activation of more boundary-establishing emotions of adaptive anger or disgust (Harmon-Jones, Vaughn-Scott, Mohr, Sigelman, & Harmon-Jones, 2004) or by evoking the softer feelings of compassion or forgiveness. The withdrawal tendencies in fear and shame can be transformed by the thrusting forward tendency in newly accessed anger at violation or reaching out for contact/comfort. Once the alternate emotion has been accessed, it transforms or undoes the original state, and a new state is forged (Fredrickson et al., 2000). It is important to note that the process of changing emotion with emotion goes beyond ideas of catharsis or completion and letting go, or mere exposure, or extinction or habituation, in that the maladaptive feeling is not purged, nor is it attenuated, by the person feeling it. Rather, another feeling is used to transform or undo it. Although exposure to emotion at times may be helpful to overcome avoidance of emotion, in many situations in therapy, change also occurs because one emotion is transformed by another emotion, rather than the maladaptive emotion simply attenuating. In these instances, emotional change occurs by the activation of an incompatible, more adaptive, experience that undoes the old response. Note that

this is not replacing the old emotion, but rather undoing it. Also, this transformation involves more than simply allowing or facing the feeling, leading to its diminishment. Rather, emotional change occurs by the activation of a new incompatible, more adaptive experience.

Transformation of Emotion Schematic Memory

As certain images are stored in memory, they are marked with "somatic information" (Damasio, 1999). As these images, such as an argument with a boss or a moment of tenderness with a spouse, are stored, the feelings experienced in those moments also are stored. These emotions then are restored when the image is recalled. This produces an emotional experience without an actual train of thought and is an embodied process. Memories thus set off the emotional responses originally set off by the event. The next time it is recalled, the person will feel the same way unless the emotion schematic memory and associations linked to it are revised.

It has become clear, however, that memory does not remain stagnant over time but undergoes revision with recall and automatic re-encoding in a process known as *memory reconsolidation* (Hupbach, Hardt, Gomez, & Nadel, 2008). Thus it appears that memories can change. In contrast to the classic view of memory, which held that a memory is more or less permanent once it has been consolidated, memory trace theory (MTT) suggests that every time a memory is retrieved, the underlying memory trace once again enters into the fragile and labile state and thus requires another consolidation period, referred to as *reconsolidation*. The reconsolidation period provides an additional opportunity to amend or even disrupt access to the memory (Moscovitch & Nadel, 1999; Nadel & Moscovitch, 1997). So each time an event is recollected and re-encoded, an updated trace is created that incorporates information from the old trace but now includes elements of the new retrieval episode itself—the recollective experience—resulting in traces that are both strengthened and altered. This altered trace may incorporate additional components of the context of retrieval, new relevant information pertaining to the original memory, and new information that is generated during the act of retrieval. In this regard, MTT suggests that memories are not a perfect record of the original event but undergo revision and reshaping as memories age and, importantly, are recollected.

The reconsolidation process results in memories that are not just stabilized and strengthened but also qualitatively altered by the recollective experience. For example, Schiller et al. (2010) recently provided evidence that old fear memories could be updated with nonfearful experience provided during the reconsolidation window. As a consequence, these fear responses were no longer expressed, an effect that lasted at least a year and was selective only to reactivated memories. These findings demonstrate the adaptive role of reconsolidation as a window of opportunity to rewrite emotional memories and suggest that memorial experience can be changed. This has important implications for therapy.

As memory reconsolidation occurs only once a memory is activated, it follows that emotional memories have to be activated in therapy in order to be able to change them (Lane, Nadel, & Greenberg, in press). Change then occurs by introducing new emotional experiences in therapy while the old memories are activated, to enable new emotional elements to be incorporated into that memory trace when it is stored through reconsolidation. Moreover, change will be enduring to the extent that this reconsolidation process is rehearsed. The corrective experience also occurs within the new context of an emotionally attuned therapy relationship, and this new experience can then be incorporated into the old memory. It is important to note that MTT suggests that this process is not simply due to a new corrective experience or a new memory trace being created but is due to the original event memory itself being transformed. Once that transformation has taken place, the original memory cannot be revisited as it once existed, except in its transformed state. Psychotherapy is a process thus that not only provides new experiences but also changes past experience in fundamental ways through changing memory.

Clinical Implications

Optimally, emotion needs to be activated in order to change it with new emotion. In addition, the emotion memory structures that automatically generate emotional responses need to be activated in order to add new experience to them during the memory reconsolidation period. Finally, symbolization and narrative construction of bodily felt experience is a key form of new meaning creation and emotion regulation. All these therapeutic processes require activation of emotion.

Two important dualities, however, occur in working with emotion. First, emotion needs to be activated to make sense of it, but it also needs to be protected against and regulated. This occurs because primary emotions serve a unique combination of *epistemological and hedonic* functions. They are both carriers of knowledge in that they inform us and feel good or bad and are therefore givers of pleasure–pain. Second, automatically activated amygdala-based, low-road, emotions that are experienced as sensations in the body need to be dealt with in a different manner from emotional problems that come from the high road, which involves more deliberate prefrontal cortex processing (LeDoux, 1996).

When feelings in our bodies provide us with immediate, intimate, personally meaningful knowledge about ourselves and others in an unmediated and specific manner, they need *articulation,* as this sharpens and clarifies what is felt and promotes self-understanding. But there comes a point when these feelings change their function. Given the powerful dimension of feelings as pain/pleasure, they can lose their meaning-giving function and become overwhelming, frightening experiences. Feelings can carry suffering and pain at

intensities that cannot be tolerated (or pleasure beyond description) and become a source of threat and trauma, produce intolerable experiences, and be a danger to psychological existence. It is the fear of the destructive potential of emotion that has led clients and therapists to be emotion phobic, but in these cases emotions need to be tolerated and regulated to preserve a sense of self-coherence.

This sets up the first important duality—whether to help clients feel their feelings or to regulate or distract clients from them. Clients need to be guided to accept and feel their feelings when they are not too overwhelming but to distinguish when the intensity of their emotions is so high that they become dysfunctional, and then learn to regulate them by soothing or distracting (Linehan, 1993).

Emotion, as we have seen, also stems from the different ways in which it is produced. Low-road processing is automatic and holistic. When functioning well it is a source of adaptive intelligence that needs to be used to orient to the environment, and when dysfunctional it needs to be accessed to change it. High-road processing, on the other hand, is far more cognitively derived and culturally influenced. Reason is involved in its generation and change, and dysfunction in this system is viewed as being based on cognitive error.

This sets up the second duality—when to access emotion or when to change thinking. High-road emotions need to be worked with using cognitive change principles. Those problems based on faulty thinking or skill deficits are likely to benefit from psychoeducational and rational methods. These forms of intervention are aimed at changing what is under more deliberate control, such as clients' thinking and behavior, and promoting the practice of new coping skills. However, where reason cannot penetrate, cognitive and psychoeducative methods that appeal to reason and deliberate processing will not work, and emotional change principles will be needed. Change in amygdala-based emotional experience involves becoming aware of the "cues" that trigger emotion schemes, activating the problematic emotion schemes, and helping clients to transform them by exposing them to new affective experience. Here emotion awareness is necessary, emotion will be needed to transform emotion, and new narratives will need to be constructed to create coherence and consolidate the change (Greenberg, 2010).

Clinically Relevant Research on Emotion

Emotion-focused therapy has been established as an evidence-based approach to depression (Goldman, Greenberg, & Angus, 2006; Watson, Gordon, Stermac, Kalogerakos, & Steckley, 2003) and found to be effective for a variety of populations (Elliott, Greenberg, Watson, Timulak, & Freire, in press) including complex trauma (Paivio & Nieuwenhuis, 2001) and couples (Johnson, Hunsley, Greenberg, & Schindler, 1999). Psychotherapy process research has consistently demonstrated a relationship between emotion processing and outcome. Research on this is reviewed, briefly, below.

Evidence That Emotional Arousal Is Critical to Psychotherapeutic Success

A number of authors have found a clear association between in-session expression or arousal and therapy outcome (Borkovec & Stiles, 1979; Jaycox, Foa, & Morral, 1998; Missirlian, Toukmanian, Warwar, & Greenberg, 2005), whereas others have found that arousal predicted outcome only when specific conditions were met. Iwakabe, Rogan, and Stalikas (2000), for instance, found that high in-session arousal predicted outcome only when the working alliance was good. In a recent study on the relationships between the therapeutic alliance, frequency of aroused emotional expression, and outcome in EFT for the treatment of depression, Carryer and Greenberg (2010) found that a frequency of 25% of emotion episodes, coded as having moderate to highly aroused emotional expression, was found to predict outcome over and above the working alliance. Deviations from this optimal level toward higher or lower frequencies predicted poorer outcome, showing that it is moderate amounts of arousal that are therapeutic.

The relationship between emotion arousal and outcome has been shown in a variety of forms of treatment. Jones and Pulos (1993) found that the strategies of evocation of emotion, and the bringing of troublesome feelings into awareness, were correlated positively with outcome in both dynamic and cognitive–behavioral therapies. A later study by this group (Coombs, Coleman, & Jones, 2002) examining the therapists' stance in interpersonal therapy and cognitive therapy of depression showed the importance of focusing on emotion regardless of orientation. Short-term dynamic therapy that focuses on affect restructuring has garnered empirical support in the treatment of cluster C personality disorders when compared with both cognitive and cognitive–behavioral therapy (Svartberg, Stiles, & Seltzer, 2004; Winston et al., 1994). In a meta-analysis of psychodynamic therapy, Diener, Hilsenroth, and Weinberger (2007) found a significant relationship between therapist facilitation of client affect and outcome. In a five-year follow-up study on personality-disordered patients, Monsen, Odland, Faugli, Daae, and Eilertsen (1995) found that a long-term psychodynamic therapy focused on patient's consciousness of affect was helpful to a group of patients for whom most other studies reported moderate to poor outcome. More successful psychodynamic therapies have also been shown to have more verbalization of emotion and the use of more emotion-focused words by the therapist and greater emotional activation and reflection by the client (Mergenthaler, 1996).

Studies of the behavioral treatment of anxiety disorders have long demonstrated that clients who profited most from systematic desensitization (Borkovec & Stiles, 1979) exhibited higher levels of physiological arousal during exposure.

These and other findings suggest that the arousal of the fear-activated phobic memory structures is important for change (Foa & Kozak, 1986). Foa and Jaycox (1998) have demonstrated that emotional processing of trauma facilitates recovery and that its effectiveness is based on emotional processing. In addition, aroused expression of fear, electrodermal and cardiac responses of anxiety, in addition to self-report, and facial expressions of clients have all indicated that for emotional processing to occur it is essential to activate the fear structure. Doing so predicted therapeutic outcomes in exposure-based therapy. In addition, in studies of EFT for trauma, early emotional engagement in therapy predicted good outcome (Paivio, Hall, Holowaty, Jellis, & Tran, 2001). The empirical evidence at hand suggests that for effective emotional processing to occur, the distressing affective experience must be activated and viscerally experienced by the client.

For maximal therapeutic change, emotional arousal and expression, however, appear to benefit from reflection on the emotion. Optimal emotional processing involves emotion activation plus some form of cognitive processing of the activated emotional experience (Greenberg, 2002; Greenberg & Safran, 1987). In EFT of depression, a client's ability to make meaning of the aroused emotion and solve problems added to the outcome variance over and above middle-phase emotional arousal (Missirlian et al., 2005). It appears that a combination of emotional arousal and reflection on the emotion is a better predictor of outcome than either index alone. In addition, productivity of highly aroused emotional expression as measured by the ability to be mindfully aware of emotion was found to be an excellent predictor of outcome (Auszra & Greenberg, 2008).

In a different line of research A. Pascual-Leone and Greenberg (2007), testing a model of emotional processing derived from task analysis, demonstrated that distress reduction involved both moving from states of high arousal and low meaning to low arousal and high meaning, and moving from secondary emotions through maladaptive to adaptive emotions. Similarly, Herrmann and Greenberg (2008) demonstrated that moving from secondary to maladaptive to adaptive emotions across a set of sessions in the working phase of therapy predicted outcome over and above the working alliance. These empirical findings suggest that it is the combination of emotional arousal and reflection on the emotions' meaning and the progression of emotion from maladaptive to adaptive that produces the most therapeutic change.

Depth of Experiencing

Research on depth of experiencing (Klein, Mathieu-Coughlan, & Kiesler, 1986), which measures the degree to which people use bodily felt feeling to create meaning, supports the notion that optimal emotional processing involves helping people experience and accept their emotions and make sense of them once they are activated. A robust and consistent finding is that depth of experiencing is positively related to outcome across orientations (Elliott, Greenberg, & Lietaer, 1994; Watson & Bedard, 2006). For example, emotional processing, measured by depth of experience on core themes (Goldman, Greenberg, & Pos, 2005) and on emotion episodes (Pos, Greenberg, Korman, & Goldman, 2003), was found to predict outcome over and above the working alliance. Pos, Greenberg, and Warwar (2009), in a path analysis, showed that working phase emotional processing directly predicted outcome and that the alliance significantly contributed to emotional processing and indirectly contributed to outcome. These findings indicate that attending to emotional experiencing and exploring, symbolizing, and creating meaning from it are all important aspects of successful emotional processing and add to the alliance in predicting outcome.

Greenberg, Auszra, and Herrmann (2007) developed the Emotional Productivity Scale to measure whether people were processing emotion in a mindful or contactfully aware manner. This involved six aspects: attending, symbolizing, congruence, regulation, agency, and differentiation. They found that good outcome clients expressed significantly more productive emotions than did poor outcome clients. That it was the productivity of expressed emotion that was important in facilitating therapeutic change rather than arousal alone was more clearly borne out in a sample of 74 clients in which emotional productivity was found to predict 58% of the outcome variance in symptom reduction and, in addition, to mediate the relationship between the alliance and outcome (Auszra, Greenberg, & Herrmann, 2012).

The evidence from psychotherapy research on the relationship between emotional process and self-reported symptom reduction in affective disorders and trauma thus indicates that therapeutically facilitated emotional awareness and arousal, when expressed in supportive relational contexts, in conjunction with reflective cognitive processing of the emotional experience, are important for therapeutic change.

Principles of Emotional Change

Theory and research have led to the articulation of a set of empirically based principles of emotional change. Emotional change occurs through at least six processes described briefly below: awareness, expression, regulation, reflection, changing emotion with emotion, and corrective emotional experience (Greenberg, 2010). These processes are facilitated by occurring in the context of an empathically attuned relationship.

Awareness. Awareness of emotion is the most fundamental principle. Becoming aware of and symbolizing emotional experience in words provides access to the adaptive information and the action tendency in the emotion. Once people know what they feel, they reconnect to the needs that are being signaled by emotion and are motivated to meet their needs. It is helpful in working with awareness to make a distinction between awareness of the categorical

emotions that have distinct expressive patterns, and awareness of sensations/feelings, which involve the awareness of bodily orientations (involving approach and avoidance). Thus we can be aware of feeling angry, sad, or afraid or be aware of a sense of danger, of anticipation, or certainty, or even a feeling for how to solve a mathematical problem. Both emotions and sensations provide us with compasses for navigating through our lives and need to be brought to awareness. Emotions provide adaptive action tendencies and expression to specific stimuli and are finite in number, whereas our sensations of things come in an infinite variety and are about the whole situation.

Expression. Emotions also often benefit by being expressed in the safety of the therapy situation. Expressing emotion in therapy involves not venting but rather engaging the body in enactments that promote the internal sensing of one's own action and a form of symbolizing in action. Expression goes beyond awareness. "Putting one's body where one's mouth is" helps overcome avoidance of experience, undoes muscular constriction, and generates neurochemical and physiological changes, and all of these change self-organization and interactions.

Regulation. Facilitating the ability to tolerate and regulate having emotional experience is another important change process. Deliberate emotion regulation skills involve such things as identifying and labeling emotions, allowing and tolerating emotions, establishing a working distance, increasing positive emotions, self-soothing, breathing, and distraction. Another important aspect of regulation involves developing implicit self-soothing abilities so that emotions are regulated as they are generated. This occurs either through internalization of the empathic soothing of the therapist or by developing self-compassion.

Reflection. In addition to recognizing emotions and symbolizing them in awareness, promoting further reflection on emotional experience helps people make sense of their experience and promotes its assimilation into their ongoing self-narratives. What we make of our emotional experience makes us who we are. Reflection helps to create new meaning and develop new narratives to understand experience and see new patterns (Angus & Greenberg, 2011; Greenberg & Angus, 2004; Greenberg & Pascual-Leone, 1997, 2001; Pennebaker, 1995).

Transformation. Probably the most important way of dealing with emotion in therapy involves the transformation of *emotion by emotion.* This applies most specifically to transforming primary maladaptive emotions such as fear and shame, undoing them by activating other more adaptive emotions such as assertive anger, the sadness of grief, or compassion for the self (Greenberg, 2002, 2010). Rather than reason with emotion, one can transform one emotion with another. In this process, withdrawal responses of collapse and helplessness are transformed by active empowered or supportive caring responses. In time, the coactivation of the more adaptive emotion helps transform the maladaptive emotion by undoing it, not replacing it.

Corrective emotional experience. Finally, a key way of changing an emotion is to have a new experience that changes an old feeling. Experiences that, for example, provide interpersonal soothing or offer new success experiences can correct patterns set down in earlier times. The undeniable reality of, for example, the new experience of having a therapist react in a way different than significant others did in the past, or of having a success experience in the world, provides a corrective emotional experience.

Psychotherapy Integration: Toward a Dynamic, Emotion-Focused, Cognitive Behavioral Approach

Cumulatively, the above developments in emotion theory combined with the recent understanding of the role of emotion in the brain suggest that central to embodied human functioning is a set of affective–cognitive units, what we called *emotion schemes* to distinguish them from purely cognitive schemata. These emotion schemes are based on a variety of levels of processing, in part on affects, desires, and goals, in part on encodings, expectancies, and beliefs, as well as in part on self-regulatory plans and strategies (Mischel & Shoda, 1995; Oatley, 1992).

As we enter the second decade of the new millennium, all therapeutic approaches appear to be converging on a shared view of emotion as a rapid-action, adaptive, control system that orients people to the relevance that events in their environment have to their well-being. A striking point of agreement appears to be the shared view that at automatic or unconscious levels, emotional and cognitive structures are highly integrated and that these affective–cognitive structures are the important targets of treatment. For example, in Beck's (1996) updated formulation of cognitive therapy, he referred to a mode of processing beyond belief. This mode involves conceptual, affective, behavioral, physiological, and motivational components. This is highly similar to Greenberg et al.'s (1993) definition in EFT of emotion schemes, which are defined as affective, motivational, cognitive, behavioral networks that produce emotional experience and meaning in relation to what is significant to people's well-being. These both bear close similarity to ideas in psychodynamic therapy of internal working models (Bowlby, 1969) and self–other role relationship models (Horowitz, 1991) in which emotion is the connective tissue between representations of self and other and is central to the drive toward relatedness. Another striking point of agreement between approaches is the importance of the conscious meaning-construction process. All approaches are converging on the view that there are foundational emotional cues and that how people make sense of their emotional experience is crucial to what they experience. The emotion, motivation, cognitive, and behavioral and interactional systems are all important in psychotherapeutic work. Privileging one system for therapeutic attention at the expense of the others leads to a narrowing of perspective. Understanding the conditions under which it is optimal to intervene therapeutically with which system is crucial. We need to create an integrated approach to therapy (Goldfried & Castonguay, 1992) that recognizes the contributions of all the

major approaches but also recognizes emotion as central to therapeutic change and requires therapists to be trained to overcome their fear of emotion.

Conclusion

A number of principles for working with emotion have been discussed in this article. I have shown that emotions, in order to change, need first to be accessed, then to be exposed to new emotional experience, and then to be made sense of. I have highlighted that people also need to protect themselves from being overwhelmed by emotions by being able to tolerate and regulate intense emotions. Ultimately, emotions need to inform our lives and not control them, and in therapy they need to be evoked to promote new experience as well as opportunities for new understanding. Finally, I have called for the inclusion of emotion-focused work into all approaches to therapy and into the unified approach we need to strive for.

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