

Love and Fear in Healing Relationships

There is no doubt that evolution has shaped us to love one another. This may be why so many of life's most gratifying experiences are those that are shared. Loving relationships help our brains to develop, integrate, and remain flexible. Through love we regulate each other's brain chemistry, sense of well-being, and immunological functioning. And when the drive to love is thwarted -- when we are frightened, abused, or neglected -- our mental health is compromised. Adults who thrive despite childhood neglect and abuse often describe life-affirming experiences with others who made them feel cared for and worthwhile. The potential for healing relationships is all around us. If we are fortunate enough to find someone who loves us, we have an opportunity to heal.

What happens when we are in love? We know we feel euphoric, like we are floating on air, safe, optimistic, and positive. It is easy to imagine that brain systems involved in positive feelings become active, whereas those that organize negative emotional states are quieted. You would also expect that attention to the external environment would decrease as networks dedicated to social connection and reward becomes very active. The state of being in love makes us happy by activating the brain's social engagement and reward systems: it creates positive feelings through the activation of biochemical networks throughout our brains. Love is a drug -- in fact, a number of drugs -- including endorphins and dopamine, and results in similar patterns of brain activation as taking cocaine. Brain areas of heightened activation include the insula, anterior cingulate, caudate nucleus, and putamen. The experience of love greatly decreases activation of the fear systems. Love is a relief from scanning the outer world for threat and our inner worlds for shame. Love turns off the alarm, cancels our insurance, and frees us from worry.

Rejection and abandonment, however, plunge us into states of fear, anxiety, and shame. The anguish of being spurned, the agony of separation, and the transient psychotic symptoms of bereavement all attest to the power of "withdrawal" from significant others. The amygdala and OMPFC (orbital medial prefrontal cortex) are major players in the regulation of our experience of safety and danger. On one side, the amygdala connects negative experiences with autonomic arousal, generating anxiety, fear, panic, and flashbacks. On the other the OMPFC assesses the reality of the danger and is capable of inhibiting amygdala activation when a fear response is deemed unnecessary. Evidence that the OMPFC and amygdala have this sort of reciprocal regulatory relationship comes from the extensive interconnections of these two structures and their alternating patterns of activation. Anxiety disorders may result from an imbalance of this system in favor of the amygdala, with safety signals from the OMPFC failing to inhibit the activation and output of the amygdala.

Overall, negative emotions trump positive ones and weigh more heavily in our evaluation of people and situations. Fear is not easily forgotten, whereas learning not to fear is fragile and often dissipates over time. We don't even have to be conscious of a stimulus, either in the environment or within us, in order for it to become a conditioned cue for fear. A thalamic pathway to the amygdala becomes activated in response to "unseen" threats and controls reflexive and autonomic responses. Based on the way our brains operate, evolution appears to have been far more interested in keeping us alive than making us happy. With regard to our neurobiology, fear outranks and outwits love in a number of ways. Fear is: faster, automatic, unconscious, spontaneously generalized to other stimuli, multi-sensory, and resistant to extinction. The combination of these neuroplastic proclivities may lead us to be biased toward fear. But, how much more informed can our loving become when equipped with an understanding of the fear-driven basis of all difficult relationships? Quieting amygdala over-activation results in resilience, regulation and recovery, and is in the service of the enhanced capacity for relatedness, empathy and trust.

Consensus is building that all successful therapy relies on affect regulation and that most, if not all, serious disorders are disorders of affect regulation. The core affect giving rise to all other painful, disorganizing affects, is **fear**. Although effective for the organization of brain function in many realms, neurofeedback is perhaps most singularly effective in quieting fear.

There are connections between fear and psychopathology in the emerging literature on attachment, brain development and affect regulation. Fear underwrites all psychological disorders seen in the light of affect regulation. In neurofeedback terminology, affect regulation is usually broken down into overarousal, underarousal and instability of arousal.

When someone has lived in a state of fear and then fear suddenly recedes, there is inevitably a crisis in identity. When we can predict and manage this crisis, we make it a time of possibility rather than a time of more fear. Neurofeedback presents us with a fundamental paradigm shift away from psyche or learned behavior toward the infrastructure of both the brain and nervous system. This paradigm shift has profound implications for the way we view psychopathology and the way we approach its treatment.

The alliance with the therapist contains and sustains the patient through any periods of destabilization or lack of progress with training. With help from the therapist, neurofeedback teaches one of life's most important lessons – we are not our states. It allows a forum for the naming and practice of new emotional and behavioral capacities such as empathy and trust. It allows for the integration of rapid changes in state and identity, as well as the possibility for exploration of all that was lost in clients' inability to regulate affect. Finally, it allows for the consolidation of the new self that is born of affect regulation within an attuned relationship.

The integration of neurofeedback and psychotherapy is one of the richest experiences any therapist could hope to have. We have the exceptional privilege of being at the intersection where brain becomes mind.