

## *A General Theory of Love*

By Thomas Lewis, MD; Fari Amini, MD and Richard Lannon, MD

Review by Vincent J Felitti, MD

“**W**hat is love, and why are some people unable to find it? What is loneliness, and why does it hurt?” are the opening words of this important book. These ancient human problems still haunt us, but what do they have to do with medical practice? In this highly readable book, three San Francisco psychiatrists successfully explain new discoveries, insights, and developments in neurobiology during what has been called “The Decade of the Brain,” and by using love as their focal point, they also help us to understand more about love. These three physicians provide welcome counterpoint to Alan Barbour’s observation that efforts to understand the patient as a person are most often relegated to psychiatry, a field which itself seems to have abdicated that goal.<sup>1</sup> The authors show that an understanding of humans and an understanding of neurobiology can be combined successfully: “In this book, we demonstrate that where intellect and emotion clash, the heart often has the greater wisdom. In a pleasing turnabout, science—Reason’s right hand—is proving this so.”<sup>Preface, p viii</sup> The authors ultimately discuss how we might use this knowledge to improve health and medical practice itself.

The model of a three-level brain is used throughout the book. This triune brain consists of the brainstem, or reptilian brain, which senses and controls internal functions such as heartbeat and avoidance of threat; the mammalian, or limbic, brain that represents the evolutionary advent of emotion in mammals, the ability to sense and respond to external phenomena; and the cortex, or neocortical brain, which consciously responds to that of which we are cognitively aware. We usually ascribe the most important aspects of our being to the neocortical brain. The authors use descriptions of clinical disorders and evidence from interesting and ingenious experiments to support this triune model of the brain. For example, reptiles are neither emotionally responsive nor playful. By contrast, we mammals can sense the internal state of another mammal and adjust our own physiology to match. This phenomenon of *limbic resonance* is illustrated by the calming influence a secure mother has on her baby by gazing into her baby’s eyes or by cradling her baby so that it can listen to her heart beating. Although we all have made these observations, their meaning has es-

caped us, but their subtlety has not. Alfred de Musset is quoted<sup>p151</sup> on limbic resonance:

*My heart, still full of her,  
Traveled over her face, and found her there no more...  
I thought to myself that a woman unknown  
Had adopted by chance that voice and those eyes  
And I let the chilly statue pass  
Looking at the skies.*

The authors move to the arena of relationships: How do we identify those with whom we fall in love? They discuss the profound importance of our earliest experiences, those experiences that we can’t consciously remember but that are nevertheless imprinted on our unconscious and somatic memories. The lasting importance of the emotional content of our early experiences is clearly illustrated by the devastating results of Harry Harlow’s experiments with maternal deprivation of otherwise well-fed and well-cared-for infant monkeys and by Rene Spitz’s observations of similar fates for children raised in foundling homes. The authors ask rhetorically, “Why should human contact—‘gestures and gladness of countenance’—rank with food and water as a physiologic need?”<sup>p70</sup> One might consider whether a homesick child had good or insecure interpersonal attachments as an infant; the word homesick has interesting implications. Dean Ornish, MD, helpfully wrote about the delayed medical consequences of homesickness in his book, *Love and Survival*.<sup>2</sup> *A General Theory of Love* has an interesting discussion about the roles of serotonin, opiates, and oxytocin; however, the important roles these three neurochemicals play in CNS function are at times incorrectly described as causal instead of as intermediary.

Identity, the consciousness of a stable self, is discussed in terms of our expanding knowledge of neurobiology. “The stability of an individual mind—what we know as *identity*—exists only because some neural pathways endure.”<sup>p100</sup> An interesting discussion follows of the profound importance of various forms of unconscious memory and their formation mechanisms. The important roles of very early, stable, somatic, and emotional unconscious memory is made clear. For instance, many are familiar with the term, but few are aware that blindsight is a literal, well-described visual phenomenon in some blind people. A more obvious



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example of the unconscious acquisition of knowledge is a toddler's use of language and a rapidly expanding vocabulary without apparent learning effort.

The big picture is described thus, "Everything a person is and everything he knows resides in the tangled thicket of his intertwined neurons. These fateful, tiny bridges number in the quadrillions, but they spring from just two sources: DNA and daily life. The genetic code calls some synapses into being, while experience engenders and modifies others."<sup>p148</sup> And then, "... a child gets his first taste of his feelings secondhand. Only through limbic resonance with another can he begin to apprehend his inner world."<sup>p156</sup> "Before any glimmerings of event memory appear, he stores an impression of what love feels like."<sup>p160</sup> Our unconscious recognition of this feeling often determines whom we select later in life for intimate relationships, be they healing or destructive. This is the mechanism for being 'in love,' an important and wonderfully pleasing state; one that is quite different from loving someone. "As

such, adult love depends critically on knowing the other. In love demands only the brief acquaintance necessary to establish an emotional genre .... A child's early experience teaches this skill [of reliably understanding another person] in direct proportion to his parents' ability to know him."<sup>p207</sup>

This small, important book takes us on a well-guided tour into the deep waters of the origins and mechanisms of love; its imaginative use of scientific advances will please many readers. *A General Theory of Love* is beautifully conceived and written and is about a subject of the greatest personal and professional importance to us as physicians. It is a major book, not to be overlooked. ❖

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#### References

1. Barbour AB. *Caring for patients: a critique of the medical model*. Stanford (CA): Stanford University Press; 1995.
2. Ornish D. *Love & survival: the scientific basis for the healing power of intimacy*. New York: Harper Collins; 1998.

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### Looking Outward

Love does not consist of gazing at each other;  
but in looking outward together in the same direction.

— Antoine de Saint-Exupery, 1900-1944, pioneer aviator, poet and novelist