

happens to be his wife. The Introduction part gets, fortunately, a bit better with chapter 2 by the other editor, Mario Mikulincer, on a behavioral perspective of attachment, caregiving, and sex within romantic relationships.

The second part focuses on issues such as definition of adult attachment (in fact, the authors quote John Bowlby, who stated that “In terms of subjective experience, the formation of an adult attachment bond is described as falling in love” [3, p. 79]), the evolution of attachment in romantic relationships, an attachment perspective on abusive dynamics in intimate relationships and on sex differences in jealousy. The discussion on abusive dynamics is especially interesting. The authors of this chapter state that “Feminist perspectives on partner violence have largely shaped treatment programs for partner abuse,” and many “... have disregarded the empirical evidence that heterosexual partner abuse is often reciprocal and that both partners are involved in the development and maintenance of abusive dynamics” (p. 118). Thus, they believe that it is problematic and potentially unethical to treat only male partners in violent relationships. That seems to be a bit novel, interesting, and important suggestion. The chapter on jealousy presents another interesting host of ideas. Apparently men are more bothered by sexual infidelity, and women by emotional infidelity or loss of interest and commitment, and research has found that men across cultures are more likely than women to divorce (and possibly batter or even kill) partners who are sexually unfaithful (p. 130).

The third part discusses issues such as responding to needs in intimate relationships, gratitude and forgiveness in romantic relationships, and perceptions of conflicts and support in romantic relationships—the ups and downs of anxiously attached individuals. I have to admit that certain parts here seemed clearly boring and long-winded.

The fourth part gets a bit more interesting, reviewing issues such as attachment styles, sex motives, and sexual behavior; the implication of the attachment theory for understanding same-sex love and desire; attachment-related pathways to sexual coercion; and how sexuality and attachment interrelate. It is argued here that, “romantic love can be understood as an attachment process in which a committed, intimate relationship meets basic needs for comfort, closeness, and security” (p. 243). On the other hand, it is interesting how each theory or set of theories has a need to explain all behaviors within its theoretical framework, even when more or less obviously some of these behaviors do not necessarily fit its framework, e.g., sexual coercion. One cannot avoid thinking of Karl Popper and his argument that the greatest strength of scientific approach or method is to disprove a hypothesis. One also has to agree with Phillip Shaver, who states that, “... there is no theory of personality, emotions, social relationships, or psychological development that holds much more than a flickering candle to actual experience” (p. 426).

The last part, as many last parts, attempts to provide final words, balancing and directions for the future research and thinking. The most interesting topic here is probably the

discussion of the implication of the attachment theory for research on intimacy. It seems that intimacy promotes openness and effectiveness in various life domains. Here I found also some reference to the psychiatric literature, to Vaillant’s book *Adaptation to Life*. The authors point out that “. . . intimacy, and particularly self-disclosure, has been associated with emotional well-being, psychosocial adjustment, and physical health across the lifespan” (p. 396). In another chapter, I also (finally) found, some brief definitions of various types of love: romantic love = liking *with* sexual desire; companionate love = liking *without* sexual desire; and lust = sexual desire *without* liking.

This volume, in spite of all its weaknesses (not-so-great editing, verbosity in some places, unevenness) is interesting for several reasons. First, it illustrates one of the vast areas of research occurring outside of psychiatry that psychiatry seems to know little about. Second, it seems to demonstrate the re-emergence of interest in attachment theory (ies) (or maybe just another “up” of the ups and downs of interest). Third, it brings up a few interesting ideas about the complicated issue of love (though love seems much less romantic after reading this book!), although the reading is less provocative and thought-provoking than the writings of Helen Fisher. Nevertheless, this volume will be appreciated by many of those interested in the attachment theory and its spinoffs.

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***In Search of Memory. The Emergence of a New Science of Mind.*** By Eric R. Kandel; WW Norton & Company, New York, New York; 2006; ISBN 0-393-05863-8; ISBN 0-393-5863-8; \$29.95 (hardcover); 510 pp.

At the very beginning of his remarkable book Eric Kandel states that, “Understanding the human mind in biological terms has emerged as the central challenge for science in the twenty-first century” (p. xi). One of the aspects of the human mind is memory, which, as stated elsewhere, binds our mental life together. Kandel spent all his scientific life uncovering the secrets of human memory and was awarded the Nobel Prize in Physiology and Medicine in 2000 for his discoveries, as his

"... work has shown us how these neurotransmitters, through second transmitters and protein phosphorylation, create short- and long-term memory, forming the very basis for our ability to exist and interact meaningfully in our world" (p. 401).

Kandel's book describes his journey from a little Jewish boy in Vienna to becoming a scientist in New York, and finally being awarded the Nobel Prize. Some would think that this would be enough for an interesting memoir book. Not for Kandel. As he explains, he interweaves "two stories in this book. The first is an intellectual history of the extraordinary scientific accomplishments in the study of mind that have taken place in the last fifty years. The second is the story of my life and scientific career over those five decades" (p. xv).

Actually, Kandel synthesizes more than the last five decades of neuroscience research, as he starts discussing the work of Santiago Ramon y Cajal and Sigmund Freud. As he progresses through the last century of important neuroscience work, he not only greatly explains the discoveries to a lay reader, but also displays a lot of admiration and appreciation for his scientific predecessors. He, among others, has a great appreciation of Freud. He explains Freud's turn to psychoanalysis, away from neuroscience, in "economical terms." As he writes, "In the nineteenth century, one needed an independent income in order to take on a career in research. In view of his poor financial position, Freud turned instead to establishing a medical practice that would earn him sufficient income to support a wife and family. Perhaps if a scientific career could have ensured a living wage then, as it does today, Freud would be known as a neuroanatomist and a co-founder of the neuron doctrine, instead of as the father of psychoanalysis" (p. 73).

Kandel's personal story is also very interesting and educational for anybody who wants to become a researcher. It is obvious that an absolute focus on and obsession with one's work is quite important. Not everybody is aware of the fact that Kandel was offered a chairmanship of the department of psychiatry at Beth Israel Hospital in Boston at the age of 36. He rejected the offer and he rejected being a psychoanalyst, as he viewed both paths as being distractive. He saw that "young physicians take on much more than they can handle effectively—a problem that only becomes worse with time" (p. 181). Nevertheless, he also has a deep appreciation for his psychoanalytic beginnings and is certain that psychoanalysis gave him "new insights into my own actions and into actions of others, and it made me, as a result, a somewhat better parent and a more empathic and nuanced human being" (p. 182). He has a further appreciation of his psychiatric training and interest in psychoanalysis with regard to his scientific work. He believes that these "... lie at the very core of my scientific thinking. They have provided me with a perspective on behavior that has influenced almost every aspect of my work" (p. 426). He also states that his initial psychoanalytic career was the "educational bedrock of all I have been able to accomplish since." These are remarkable statements in the frequently polarized

field of psychiatry, which is only recently attempting to synthesize all areas, neurobiology, psychoanalysis, psychology, psychopharmacology and others. Kandel, in his own way, is a predecessor and a visionary of this process. One of the chapters in this book, "Biology and the renaissance of psychoanalytic thought" is specifically devoted to this synthesis. He believes that "bringing biology to bear on psychoanalytic ideas is likely to invigorate the role of psychiatry in modern medicine and to encourage empirically based psychoanalytic thought to join the forces that are shaping the modern science of mind" (p. 375). However, Kandel also has some words of criticism for psychoanalysis, especially its lack of scientific methodology and the fact that it is "far better at generating ideas than at testing them" (p. 365).

Nevertheless, Kandel's focus is mostly on synthesizing the findings of brain neurobiology. He brings the reader's attention to the most remarkable discoveries, including the one that antidepressants may exert their effect on behavior in part by stimulating the production of neurons in the hippocampus.

One of the last chapters of Kandel's book is devoted to consciousness, "... by far the most challenging task confronting science" (p. 377). Interestingly, the biological nature of consciousness was one of two great questions Francis Crick turned to (the first being what is distinguishing the living from the nonliving world). This chapter is a very interesting discourse. It is followed by a chapter describing how Kandel received the Nobel Prize, but more importantly, how he rediscovered Vienna, the city of his childhood. Kandel discusses, among others, anti-Semitism, which is still quite palpable among some citizens of Vienna. It is interesting, as noted by George Berkley and cited earlier in this book that, "The fierce attachment of so many Jews to a city that throughout the years demonstrated its deep-rooted hate for them remains the greatest grim irony of all" (p. 20).

Eric Kandel's book is a great history of neuroscience made *relatively* easy to understand and read. Kandel's original interest in history and psychoanalysis, together with his profound knowledge of neurosciences and, probably most importantly, either a great memory or great collection of personal diaries, allows for a very thoughtful synthesis of historical development of brain neurobiology. The book is also a great testimony of Kandel's sheer optimism, enthusiasm, determination and focus, and also of his modesty, and appreciation of others, including the United States. Throughout his book, he frequently mentions the "liberating influence of American academic life."

The book probably should be read in small portions, partly to digest the text well, partly to enjoy it, and partly to let it sink in and understand it. It is a great introduction to neuroscience of memory for any novice, or a refreshing reintroduction to neurosciences for the rest of us.

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