
Book Reviews

The Archaeology of Mind: Neuroevolutionary Origins of Human Emotions

Jaak Panksepp and Lucy Biven

New York: W. W. Norton, 2012.

Foreword, contents, images, references,
index. 592 pp. \$45.26 cloth.

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This book builds on several decades of work by neuroscientist Jaak Panksepp that attempts to establish a scientific basis for the study of emotion. Panksepp's research involves the direct manipulation of the brain, which means his principal subjects are necessarily nonhuman animals. Panksepp's core finding is that for many of the basic emotions we recognize, from rage to joy, specific brain circuits regulate the behavioral and physiological expressions we associate with these emotions. Moreover, these brain circuits primarily reside in the more primitive parts of the brain and are organized in the same manner in the rat brain as they are in the human brain. That is, all mammals, and maybe all animals, share a set of emotional systems. But, caught in entrenched intellectual traditions, students of both human and non-

human animals resist the implications of these brain-based findings.

Students of human emotions have focused on how we interpret bodily feelings—and label them—as particular types of emotions. This “read-out” approach considers the most evolved part of the brain, the neocortex, to be the part most influenced by learning, by the cultural modifications that create the labels for how we feel. Researchers have not viewed the deeper brain mechanisms uncovered in nonhuman animals as particularly interesting or revealing. Students of nonhuman animal behavior, whether psychologists or ethologists, have not typically considered emotions as a valid scientific research topic. If they are forced to incorporate at least some emotional content into their work, they tend to minimize its role and importance in the study of both behavior and the brain. A stream of research starting with Darwin has repeatedly revealed commonalities of basic emotions for mammals, but scholars have generally marginalized such research. Panksepp's approach focuses on the brain mechanisms, which has led him to a set of correlated anatomical, physiological, and

behavioral clusters representing identifiable emotions. The evidence for these commonalities is now overwhelming, but many traditionalists still argue, sometimes tortuously, that if it walks like a duck and quacks like a duck, it must be a chicken.

The goals of this book, according to the authors (p. x), are to update and disseminate more broadly, the framework presented in Panksepp's earlier book, *Affective Neuroscience* (1998). Here, Panksepp has recruited Lucy Biven as coauthor, expanding the knowledge base with which to connect his basic neuroscientific findings to a broader audience of practitioners for whom a deeper understanding of the organization of emotions should enrich their psychotherapeutic approaches. Given this intent, it puzzles me to read that Biven did not contribute to the chapter devoted explicitly to connecting the neuroscience of emotions to psychotherapy (chapter 12). Be that as it may, deep insights into how our basic emotions contribute to the joys and pains of daily life appear throughout the book, which makes clear how we could better deal with unwanted emotions. Most importantly, the book lives up to its intent, incorporating much of the new empirical literature since 1998 without getting so enmeshed in the details of the neuroscience as to prove daunting to the interested nonspecialist.

Broadly, the framework of the book shows emotional systems deep in the brain (primary processes) that guide learning at a higher level of brain organization (secondary processes). Additionally, the feelings arising from these lower systems can reach cognition manner at the highest level of brain function (tertiary processes). Researchers have studied the secondary and

tertiary processes intensely, but the more neglected primary processes—for example, emotions like fear for secondary and shame for tertiary—form the core of this book.

Of the seven basic emotional systems categorized by Panksepp and Biven, one involves play. The ability to feel the joy associated with play is at the core of who we are. Given that scholars have typically relegated play to the margins of the traditional scientific disciplines, I find it heartening to see someone make a strong argument for its centrality to the emotional lives of animals. While the book offers a good case for integrating play into the mainstream of emotional research, it does not examine many of the puzzles about play itself.

In the text, Panksepp and Biven capitalize their seven emotional systems and explicitly define them not merely by the behavior recognizably associated with them but also by their unique neural circuitry. Thus, PLAY, for the authors, constitutes the neural mechanisms that provide the experience of social joy common to all mammals. This categorization creates a problem for students of play for two reasons. Not all mammals engage in play, and not all those who do engage in social play. These comparative considerations suggest at least two possibilities. First, the PLAY system is not universal. It is, rather, a system that has evolved repeatedly as different lineages of animals have spawned species that play. To do so, components of the other core systems described in this book must be able to recombine into a system that can generate the joy of play irrespective of whether play is social or solitary. In addition, there must be a core system for

social joy that does not require play as its expression. Perhaps the JOY system has been co-opted multiple times to build the capacity to play in the various lineages that engage in play. The book seems to overemphasize the link between social joy and PLAY. Even so, it provides a great starting point for further empirical studies on these issues.

If scholars working on the mechanisms related to the other core systems—SEEKING (expectancy), FEAR (anxiety), RAGE (anger), LUST (sexual excitement), CARE (nurturance) and PANIC/GRIEF (sadness)—read this book with an open mind, they will, no doubt, discover the strengths of the framework and identify the weaknesses needing further research. Thus, the book should finally put to rest whether there are basic emotions (there are); settling this issue directs us to more fruitful arguments about the details of the brain mechanisms involved.

At first I felt the book at five hundred pages was too long, but once I began reading, it was engrossing. I find the fact that the citations in the foreword are not listed in the bibliography to be irritating, but in a large book, perhaps such errors are unavoidable. I hope the authors correct the problem in a later edition. Most importantly, because of the way this book effectively links the brain research on nonhuman animals and on humans—and because of its practical implications, especially for learning and psychotherapy—this is a must-read book for a wide audience. It certainly belongs on the reading list for all my graduate students.

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Reinventing Childhood after World War II

Paula S. Fass and Michael Grossberg, eds.
Philadelphia: University of Pennsylvania Press, 2012. Contents, notes, index.
182 pp. \$42.50 paper.
ISBN: 9780812243673

How many historians does it take to write an insightful, provocative, scholarly, and readable little book that will help students and historians alike understand the contexts in which the history and historiographies of children and youth have developed over the last half century? In this case, seven—the number who contributed to this model of purposeful collaboration that stakes a claim for the potential of history as a tool to explore and even influence public attitudes about and government policies toward children.

If not quite seamless, the book is nevertheless tightly organized. Paula Fass focuses on the creation of a generation of anxious parents and children as more mothers went to work, divorce rates grew, schools worsened, and drugs became available to control child behaviors. Michael Grossberg explains how children's "rights" at first widened (the 1954 school desegregation decision, for instance) and then narrowed (due to censorship and worries about sexual predators). Steven Mintz explores the commercialization of children's culture and the growing belief that children's pastimes required less imagination than in the past (he also partly debunks that notion). Stephen Lasseonde argues that, while the first postwar generation grew up with clear coming-of-age markers, the commercialization of childhood, the increasing awareness of