

each other's views and that there is still a simmering resentment of the sciences by the humanities in the ongoing "culture wars."

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THE AGE OF EMPATHY: NATURE'S LESSONS FOR A KINDER SOCIETY.

By Frans de Waal. New York: Three Rivers Press (Random House). \$17.00 (paper). x + 291 p.; ill.; index. ISBN: 978-0-307-40777-1. 2009.

Can a book with a cover endorsement from Oprah Winfrey's *O* magazine also be a serious chronicle of behavioral science? In the case of Frans de Waal's *The Age of Empathy*, the answer is "yes." Written in part to respond to mainstream social tropes that validate greed, competition, and selfishness by appealing to the evolutionary process, this volume uses empathy as a mirror through which the reader can reassess how evolution shapes behavior. In a wide-ranging discussion of topics such as emotional contagion, cultural transmission, consolation, self-recognition, targeted helping, and game theory (as applied to apes, monkeys, cetaceans, elephants, and corvids), de Waal argues that empathy—the ability to understand the emotional state of others—is a unique adaptation that enables social organisms to work cooperatively. Although the author is keen on pointing out nature's nicer side, he does not allow readers to nod into naivete about why empathic behaviors exist. We learn about the proximate drivers of such behaviors (including some basics of neuroscience), but the ultimate benefits reaped by those who display prosocial behaviors are always kept in focus.

Although this book is written in a conversational style and is clearly designed for general readers, it is also densely packed with valuable content. *The Age of Empathy* not only provides readers with a sense of what scientists know about animal behavior and cognition, but also *how* scientists gain this knowledge. We are introduced to a variety of clever experiments used to understand animal abilities, including a healthy dose of influential experiments conducted by de Waal and his collaborators. Through these examples we gain a sense of how difficult it is to design and execute experiments that probe animal behaviors, a reality to which de Waal appeals while making liberal use of anecdotal evidence. The author is also unafraid of bridging the gap between his science and the societies in which he has lived; his insights about the contrast between European and American views of human nature are particularly interesting.

This book would make a fabulous supplementary reading for an undergraduate course in Animal Behavior, and also has the potential to be used in

seminar courses in the biological and social sciences that deal with cooperation, justice, or social organization.

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LIFE: EXTRAORDINARY ANIMALS, EXTREME BEHAVIOUR.

By Martha Holmes, Michael Gunton, Rupert Barrington, Adam Chapman, Patrick Morris, and Ted Oakes. Berkeley (California): University of California Press. \$39.95. 312 p.; ill.; index. ISBN: 978-0-520-26537-0. 2010.

This beautiful book, a companion to the BBC television series called *Life*, is an invitation. It provides extensive information about how animal behaviors solve problems of survival and reproduction within an animal's natural world. But it is also an invitation to its readers by offering a scintillating introduction to the world of animals, an introduction that could serve as a trigger to a lifelong passion for the study of life in students, and a renewed appreciation for life science in scientists.

The volume is organized into nine chapters. The first chapter provides an introduction to the animal life forms on Earth, and a preface to the organization and vision of this book that describes them. It puts the volume into context with its subject, and describes the basic trajectory of animal evolution and its resulting increasing complexity. A Location Map follows, which shows the location of all of the stories that appear in the BBC series and this book. Not surprisingly, the stories are concentrated in the tropics and subtropics, where the diversity of Earth's animals is greatest. Following the Location Map, the volume is organized into a series of chapters, each corresponding to an episode in the BBC series. These chapters cover major categories of animals, including sea creatures, fish, insects, reptiles and amphibians, mammals, predatory mammals, and primates. Within each chapter there is an introduction to the group at hand, and then several "stories" about individual species in that group and the behaviors that they use to survive their particular environmental challenges. For example, in the chapter Fabulous Fish, readers find stories about whale sharks and Cubera snappers in the Caribbean, rock-climbing gobies in Hawaii, and weedy snapdragons off the south coast of Australia. These stories, 60 in all, provide vivid and scientifically compelling glimpses into the complexity and elegance of animal behavioral solutions to the challenges of survival. Furthermore, all of these stories contain spectacular color photographs, totaling over 300, of the animals in their habitats—an enjoyable glimpse into the visual wonders that the BBC series provides on film.