

## **Why Animals Matter: Animal Consciousness, Animal Welfare, and Human Well-Being**

Author: Clark, Judy MacArthur

Source: BioScience, 63(1) : 57-59

Published By: American Institute of Biological Sciences

URL: <https://doi.org/10.1525/bio.2013.63.1.13>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

a number of ethical arguments for the latter exist (e.g., in terms of avoiding suffering or harm to individuals), it is difficult to argue for the value of species (being classes or lineages) as objects for moral consideration. McCord, however, is interested in demonstrating the value of just this. He argues for the consideration of an inherent value of species, “a value that arises from something that all people should find notable in nature of the thing that is valued, regardless of its practical uses” (p. 7). Many if not most efforts to protect species by means of emphasizing the economic value of nature and ecosystems are seen critically by McCord. One obvious reason for his skepticism is that those species not deemed of practical use to humans are beyond protection with this strategy.



Furthermore, the current system of property values (and its legal implications) and the dominant value of money in Western societies are seen by the author as a decisive force for the accelerated extinction of species. A substantial part of the book deals with this issue, moving deeply into politics and law. However, the most interesting and crucial theme of the book remains the one that McCord states in his introduction: “Beyond seeking legal or economic solutions [for the preservation of species], we must first and foremost resolve the crisis of who we want to be as humans”

(p. 5). This perspective points to the very old idea of *eudaimonia* (the idea of a good, a well-lived, flourishing life as a major goal) and forms the basis of virtue ethics.

The concept of *eudaimonia* has recently found a kind of revival in ethics and is a promising approach toward orienting human relationships with nature. It appeals to what are the dimensions of good human character and virtue. Avoiding both the endless discourse about direct obligations to nature and the limitations of economic and ecological arguments for conservation, *eudaimonia* connects directly to the intuitions that most people have about nature. As McCord shows convincingly, such aspects of human character are not just temporary preferences but are basic anthropological attributes, and the main human attribute that he aims at is our essential intellectual curiosity and wonder. The complexity, history, and evolutionary uniqueness of each species, beyond the aesthetics and our practical needs, is unendingly fascinating.

Caring about the continuing existence of all species on Earth is, therefore, in our rational self-interest as real human beings. Contributing to and tolerating the human-driven extinction of species deprives us of our future ability to experience the miracle, wonder, and curiosity that each species bestows on us—an ability that is not only in one’s individual interest but is of societal interest to maintain. McCord’s approach to the value of species is certainly a promising one that I highly favor. I wonder, however, whether his argument linking intellectual curiosity with species reaches far enough and whether he makes sufficient use of the idea of a “good life.”

McCord’s well-written book is a highly recommendable contribution to the discourse on the value of species. It provides inspiring ideas, because the author was willing to travel beyond the current mainstream of the conservation discourse. The whole concept of *eudaimonia*, applied to human

relationships with nature, broadens our perspective in favor of biological conservation and touches on the question of personal identity as it relates to nature—an aspect that still needs to be explored in full.

KURT JAX

Kurt Jax ([kurt.jax@ufz.de](mailto:kurt.jax@ufz.de)) is a senior scientist at the Helmholtz Centre for Environmental Research, in Leipzig, Germany, and professor of ecology at the Technische Universität München. His most recent book is *Ecosystem Functioning* (Cambridge University Press).

## CRYSTALLIZING THE ANIMAL WELFARE STATE

**Why Animals Matter: Animal Consciousness, Animal Welfare, and Human Well-being.** Marian Stamp Dawkins. Oxford University Press, 2012. 224 pp., illus. \$24.95 (ISBN 9780199747511 cloth).

In *Why Animals Matter: Animal Consciousness, Animal Welfare, and Human Well-being*, author Marian Stamp Dawkins challenges her readers to radically rethink their attitudes toward animals, and she justifies this challenge on two pretexts. First, there is a pressing need to feed an ever-expanding global population, which causes us to focus on food production and environmental protection without proper consideration of animal welfare. Second, we are singularly confused about the consciousness of animals and inconsistent in how we view and treat different groups of animals within our society. Given these two concerns, Dawkins, professor and medal recipient of animal behavior at Oxford University, aims to simplify our approach to understanding animal welfare so that clear and persuasive solutions can be found.

doi:10.1525/bio.2013.63.1.12

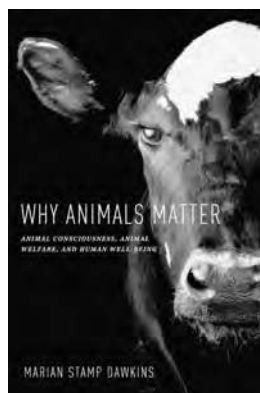
The author's exploration of the basis for anthropomorphism in chapter 3 asks how justified we are in projecting human emotions onto animals. In an age when computers can be "trained" and even programmed to "train" other computers and to "heal" themselves, we realize that it is not out of the bounds of reason to ascribe human characteristics to nonhumans. Dawkins also distinguishes anthropomorphism from consciousness, which she argues should be openly and directly considered in animals on a scientific basis. Our failure to understand animal consciousness, however, should not be used as an excuse for not making progress in understanding the needs and wants of animals—that is, animal welfare.

In chapters 4–6, Dawkins courageously explores what we know about animal minds and the complexity and plurality of consciousness. In chapters 7 and 8, she frankly considers what science has been able to tell us so far and acknowledges that much of our understanding of consciousness is beyond what current science is able to explain. This acknowledgment, she claims, frees us to develop more practical and applied approaches to the study of animal welfare without a full understanding of the complexity of consciousness as a prerequisite.

Animal welfare is not only about good health, nor is it only about avoiding death. The ability of animals to anticipate danger and to cope with threats is a separate and equally important issue. It is the behaviors that have no obvious function that demonstrate the complexity of understanding even simple responses. The needs that animals have (e.g., to satisfy hunger with food) may relate on a life–death scale directly to their health; however, their wants may stem from more primitive instincts (e.g., to hunt in the absence of hunger), which have evolved over millions of years.

Needs and wants form the two pillars of animal welfare, and both must be considered carefully.

In *Why Animals Matter*, Dawkins reaches a conclusion that good welfare resides in an animal that is both healthy (i.e., its needs are satisfied) and has what it wants. She argues that modern animal welfare science often approaches these two pillars in complicated ways. By measuring either positive or negative emotions, the common goal is to understand how to address both animal wants and needs.



Understanding what animals need in order to be healthy is one relatively simple question. By contrast, Dawkins dedicates the whole of chapter 9 to attempting to understand what animals want, accepting that this pursuit moves us precariously back toward considering consciousness. Can we ever scientifically study such questions? Few animals, even in the wild, live permanently in a state where their needs and wants are perfectly met. Modern technology, such as radio tracking, allows us to observe minute details in the lives of animals, both wild and domestic. We learn where they choose to go naturally, what they choose to do, and what they choose to avoid. Choice experiments can also be designed to explore these wants in a fruitful way, although full understanding of what makes a life worth living will probably remain elusive. The results

will often be surprising and counter-intuitive, especially if we ask animals to pay a price for what they want. It is, therefore, all the more important that experiments asking these questions are well designed.

Positive and negative reinforcement are powerful tools in understanding what animals want and what they do not want and how strong their preferences and aversions are, but poorly designed experiments may lead to misleading conclusions. For example, simple choice experiments may not take into account complicating factors such as cognitive bias—whether the animals take an optimistic or pessimistic view of the choices they are being asked to make. Studies by Mike Mendl, professor of animal behavior and welfare at Bristol University, and others (e.g., Mendl et al. 2009) would suggest that this predisposition in animals could be an underlying factor that is critically important to consider. Results may thus be influenced by the richness of the environment in which the animal lives and may vary from animal to animal within a species or type.

Dawkins concludes that we can boil down difficult concepts such as *mental health*, *positive affective state*, and *quality of life* into this one simple concept of what an animal wants, but she reemphasizes that this is not the same as conscious awareness. Pronouncing herself a consciousness skeptic, she reiterates that the problems of understanding animal welfare can be resolved without having first to answer the big question about animal consciousness.

*Why Animals Matter* is not an easy read, but the questions being asked are not simple ones. I applaud Dawkins for her ability to look afresh at old problems and to painstakingly pursue a deeply analytical course through the many complex factors associated with animal welfare. She provides a clearer pair of lenses through which we should endeavor to visualize a new future for our relationship with animals, especially when they are producers of our

doi:10.1525/bio.2013.63.1.13

food, companions in our lives, and diverse occupiers of our natural environment.

### Reference cited

Mendl M, Burman OHP, Parker RMA, Paul ES. 2009. Cognitive bias as an indicator of animal emotion and welfare: Emerging evidence and underlying mechanisms. *Applied Animal Behaviour Science* 118: 161–181.

JUDY MACARTHUR CLARK

*Judy MacArthur Clark (judymacarthurclark@gmail.com) is a veterinarian and past-president of the UK Royal College of Veterinary Surgeons. She has been a consultant on ethical policy development and on improving the public understanding of science for over 20 years and works actively on research regulation and policy development in Europe and the United States. She is currently head of the Animals in Science Regulation Unit in the UK Home Office.*

### NEW TITLES

**Advancing an Ecosystem Approach in the Gulf of Maine.** Robert L. Stephenson, John H. Annala, Jeffrey A. Runge, and Madeleine Hall-Arber, eds. American Fisheries Society, 2012. 415 pp., illus. \$79.00 (ISBN 9781934874301 paper).

**The Biology and Ecology of Tintinnid Ciliates: Models for Marine Plankton.** John R. Dolan, David J. S. Montagnes, Sabine Agatha, D. Wayne Coats, and Diane K. Stoecker, eds. Wiley-Blackwell, 2012. 304 pp., illus. \$149.95 (ISBN 9780470671511 cloth).

**Biomedical Consulting Agreements: A Guide for Academics.** Edward Klees and H. Robert Horvitz. MIT Press, 2012. 125 pp. \$30.00 (ISBN 9780262517935 paper).

**The Carbon Crunch: How We're Getting Climate Change Wrong—and How to Fix It.** Dieter Helm. Yale

doi:10.1525/bio.2013.63.1.14

[www.biosciencemag.org](http://www.biosciencemag.org)

### How to Contact AIBS

#### BioScience

Advertising, print and online:  
[adsales@ucpressjournals.com](mailto:adsales@ucpressjournals.com)

Classified advertising:  
[jwilliams@aibs.org](mailto:jwilliams@aibs.org)  
703-674-2500 x. 209

Online:  
[www.aibs.org/bioscienceonline](http://www.aibs.org/bioscienceonline)

Permissions:  
[www.ucpressjournals.com/reprintinfo.asp](http://www.ucpressjournals.com/reprintinfo.asp)

Publisher:  
[rogrady@aibs.org](mailto:rogrady@aibs.org)  
703-674-2500 x. 258

Submission inquiries:  
[tbeardsley@aibs.org](mailto:tbeardsley@aibs.org)  
703-674-2500 x. 326

Subscriptions: Individual  
[membership@aibs.org](mailto:membership@aibs.org)  
703-674-2500 x. 247

Subscriptions: Institutional  
[customerservice@ucpressjournals.com](mailto:customerservice@ucpressjournals.com)  
510-643-7154

#### AIBS

ActionBioscience.org:  
[tbeardsley@aibs.org](mailto:tbeardsley@aibs.org)  
703-674-2500 x. 326

Education Office:  
[smusante@aibs.org](mailto:smusante@aibs.org)  
703-674-2500 x. 311

Executive Director: [rogrady@aibs.org](mailto:rogrady@aibs.org)  
703-674-2500 x. 258

Membership Records:  
[membership@aibs.org](mailto:membership@aibs.org)  
703-674-2500 x. 247

Community Programs:  
[spotter@aibs.org](mailto:spotter@aibs.org)  
941-321-1573

Public Policy Office: [rgropp@aibs.org](mailto:rgropp@aibs.org)  
202-628-1500 x. 250

Scientific Peer-Review Services:  
[sglisson@aibs.org](mailto:sglisson@aibs.org)  
703-674-2500 x. 202

Web/IT Services:  
[jwagener@aibs.org](mailto:jwagener@aibs.org)  
703-674-2500 x. 107

University Press, 2012. 288 pp., illus. \$35.00 (ISBN 9780300186598 cloth).

**Career Planning for Research Biologists.** Sarah Blackford. Wiley-Blackwell, 2012. 192 pp., illus. \$29.95 (ISBN 9781405196703 paper).

**Climate Change Ethics: Navigating the Perfect Moral Storm.** Donald A. Brown. Taylor and Francis (Routledge), 2012. 288 pp., illus. \$48.95 (ISBN 9780415625722 paper).

**Environmental Flows: Saving Rivers in the Third Millennium.** Angela H. Arthington. University of California Press, 2012. 422 pp., illus. \$75.00 (ISBN 9780520273696 cloth).

**Evolution's Wedge: Competition and the Origins of Diversity.** David W. Pfennig and Karin S. Pfennig. University of California Press, 2012. 320 pp., illus. \$75.00 (ISBN 9780520274181 cloth).

**The Global Farms Race: Land Grabs, Agricultural Investment, and the Scramble for Food Security.** Michael Kugelman and Susan L. Levenstein, eds. Island Press, 2012. 248 pp., illus. \$25.00 (ISBN 9781610911870 paper).

**Historical Environmental Variation in Conservation and Natural Resource Management.** John A. Wiens, Gregory D. Hayward, Hugh D. Safford, and Catherine Giffen, eds. Wiley-Blackwell, 2012. 352 pp., illus. \$69.95 (ISBN 9781444337938 paper).

**Human Dignity, Human Rights, and Responsibility: The New Language of Global Bioethics and Biolaw.** Yechiel Michael Barilan. MIT Press, 2012. 349 pp., illus. \$36.00 (ISBN 9780262017978 cloth).

**The Iowa Lakeside Laboratory: A Century of Discovering the Nature of Nature.** Michael J. Lannoo. University of Iowa Press, 2012. 112 pp., illus. \$19.00 (ISBN 9781609381219 paper).

**Jefferson's Shadow: The Story of His Science.** Keith Thomson. Yale