

A REVIEW OF *MINDING ANIMALS: AWARENESS,
EMOTIONS, AND HEART* BY DR. MARC BEKOFF

By
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Dr. Marc Bekoff's book, *Minding Animals: Awareness, Emotions, and Heart*,¹ like much of his work, is a tantalizing and ambitious overview of animal rights and liberation, approaching the subject through the lens of ethological data, anecdote, and philosophy. For more than three decades, Bekoff, who recently coined the expression "deep ethology,"² has been observing a variety of species at close quarters, from Adelie penguins to coyotes to wolves. His tent sites have ranged from the Western Peninsula of the Antarctic to Yellowstone to Boulder, Colorado, where he is a professor. Bekoff expects the best from humanity and asks scientists and the public to endorse a code of ethics that recognizes the cognitive and emotional mysteries of all other life forms. It is a simple, if utopian, plea against global ecological mayhem, animal cruelty, and runaway consumerism—but what distinguishes his approach in this book is the overwhelming evidence he elicits to support his goals.

Bekoff left a graduate program in neurobiology at medical school because he refused to kill animals as part of the curriculum. Paul Ehrlich refers to the dilemma as the "world of wounds" for students entering the study of ecology with a dream of healing the world.³ In the years since then, Bekoff has campaigned to raise awareness in the scientific world to the possibility of healing—to understand there is a "deep science" merging traditional disciplines, induction, and the old style of intrusive experiments with a new paradigm of "aesthetic and sentient experiences." His book is a feast of convincing arguments and analogies that leaves no doubt about the impending revolution in the scientific, legal, and consumer realms regarding our treatment of other species. Bekoff questions every traditional method prized by field bi-

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¹ Marc Bekoff, *Minding Animals: Awareness, Emotions, and Heart* (Forward by Jane Goodall) (Oxford U. Press, Inc. 2002).

² The phrase "deep ethology" is a twist on the phrase "deep ecology." The "deep ethology" concept combines the ideas of minding animals and recognizing human responsibilities in nature.

³ Paul Ehrlich, *Excellence in Ecology, Book 8, A World of Wounds: Ecologists and the Human Dilemma* (Ecology Inst. 1997).

ologists, including tagging and observation. He attaches serious consequences as much to scientists' fundamental beliefs and ethical priorities as to their methods.

Bekoff's approach to this ultimately spiritual challenge gains momentum from the beginning of the book through his accumulation of wisdom in the company of his (now deceased) companion, Jethro, a dog who, one comes to believe, instructed Bekoff in all the ways that medical school did not. It appears that Jethro taught Bekoff how to think and behave like a dog; where to urinate, how to play, grieve, meditate, and marvel at nature—aspects of Bekoff's deep ethology. How Bekoff's universal Jainism⁴ of animal rights will play out in the real world is a recurring question, but it never worries the eternal optimist. For example, Bekoff recognizes that socially responsible science, compassion, heart, and love can be blended into a productive recipe to learn more about the lives of other animals and the world where each one of us lives. He says that many scientists pay lip service to this idea, often dismissing those scientists who want to imbue science with compassion. In Bekoff's opinion, such narrow views of science are extremely outdated.⁵ He cites one example of this new scientific blending theory, the landmark speech Senator Robert Byrd (Democrat, West Virginia) delivered in July 2001, in which Senator Byrd called upon the United States Department of Agriculture to work more diligently to end the pain, suffering, and cruelty of slaughterhouses. As chairman of the Senate Appropriations Committee, Senator Byrd also demanded an additional \$3 million to enforce the Animal Welfare Act and Humane Slaughter Act.⁶ Bekoff sees a new paradigm eclipsing the old-world school—from society's increasing concerns about the legitimacy of zoos, to the debates within the field of conservation biology between those focused on whole populations and those more concerned with individuals.⁷

In medical schools, students increasingly demonstrate their preferences for non-invasive alternatives to animal studies.⁸ Rates for dis-

⁴ Jainism is the oldest religion in India, devoted to non-violence (ahimsa), and characterized by a remarkable set of ecological insights. In particular, the deeply-held belief that every being of every species is an individual endowed with a soul that must be respected. See generally Michael Tobias, *Life Force: The World of Jainism* (J'ai lu Editions 2000).

⁵ Bekoff, *supra* n. 1, at 10.

⁶ *Id.* at 160–61.

⁷ *Id.* at 188. Bekoff quotes extensively from biologist Jim Estes who argues that conservationists must “somehow build a program that embraces the goals and values of individualists because the majority of our society has such a deep emotional attachment to the welfare of individual animals.” Even Nobel Laureate Barbara McClintock, says Bekoff, spoke of her “feeling for the organism” when speaking of corn. *Id.* at 186.

⁸ Kristine Kieswer, *Top Ten U.S. Medical Schools Abandon Animal Labs: Others Abandon Change*, 10 No. 3 Physicians Comm. for Responsible Med. Mag. (Summer 2001) (available at <<http://pcrm.org/magazine/GM01Summer/GM01Summer02.html>>); for a list of schools that still have live animal labs and schools that do not, see PCRM, *Ethics in Medical Education* <<http://www.pcrm.org/resch/meded/index.html>> (accessed

section preferences are down throughout Europe, and outright revolt by biology and medical students is increasingly common.⁹ Alternatives to the use of animals in medical schools are increasingly popular, including a program at Johns Hopkins that has explored such options for many years.¹⁰ In one study of first-year medical students at the National University of Singapore, a human patient simulator was more effective and more eagerly received than using actual cadavers.¹¹ But-tressing this movement is the realization that the scientific value of studying animals in captivity is undermined by the stress and torment that incarcerated animals endure; behavioral gloom compromises emotional and physiological studies from the very start. For example, a common response to captivity in both zoos and biomedical research labs is known as stereotypies, a psychological disorder identified by frantic pacing, and a behavior that does not exist in the wild.¹² In the wild, animals show great behavioral complexity. Bekoff himself noted at least fifty or more forms of behavior in coyotes during one study, and cited the work of Stuart Altmann who witnessed “more than 120 behavior patterns for rhesus monkeys.”¹³ Not so, for captive animals.

If this diversity of behavior is so common outside traditional research, imagine, says Bekoff, what the cognitive and emotional counterparts must be in the wild, where few humans ever observe animals. Some people may see a scavenging bear on a roadside in Yellowstone from the comfort of their car, but most people know only domesticated animals, and even in their presence, as Bekoff describes, there is contradiction. Americans lavish some \$23 billion per year on their beloved pets on pet food alone,¹⁴ but also consume over 9 billion animals as

Apr. 5, 2003); see generally PCRM, *Research Controversies & Issues* <www.pcrm.org/news/issues021119.html> (accessed Apr. 5, 2003).

⁹ See e.g. Bekoff, *supra* n. 1, at 157–59.

¹⁰ See Johns Hopkins Center for Alternatives to Animal Testing, *Alternatives to Animal Testing on the Web, Reduction, Refinement, Replacement* <<http://altweb.jhsph.edu>> (accessed Apr. 5, 2003). In addition to the Johns Hopkins Center for Alternatives to Animal Testing, countless other programs now exist to rigorously question the wisdom, effectiveness, and necessity of a paradigm involving the invasive animal experiments guiding most research for the last five centuries. Examples of such programs include the Alternatives Research & Development Foundation, the European Consensus-Platform for Alternatives (ECOPA) and European Resource Centre for Alternatives in Higher Education (EURCA), the Fund for the Replacement of Animals in Medical Experiments, the Interagency Coordinating Committee for the Validation of Alternative Methods, the University of California Center for Animal Alternatives at UC Davis, and the Netherlands Centre for Alternatives to Animal Use.

¹¹ G.M. Tan et al., *Teaching First-Year Medical Students Physiology: Does the Human Patient Simulator Allow for More Effective Teaching?* 43(5) Singapore Med. J. 238 (2002) (available at <<http://www.sma.org.sg/smj/4305/4305a4.pdf>>).

¹² Andrew N. Rowan, et al., *Farm Animal Welfare; The Focus of Animal Welfare in the U.S.A. in the 21st Century* (Tufts Ctr. for Animals & Pub. Policy 1999) (available at <<http://www.tufts.edu/vet/cfa/faw.pdf>>).

¹³ Bekoff, *supra* n. 1, at 52.

¹⁴ Consumer Insight Magazine, *Fighting Like Cats and Dogs for Share of the Pet Supply Category* <<http://acnielsen.com/pubs/ci/2000/q4/features/fightingcatsdogs.htm>> (accessed Apr. 5, 2003).

food every year.¹⁵ In Pasadena, California, feeding wild pigeons is considered a crime,¹⁶ and in Utrecht, Netherlands, the city council is considering ways to remove such birds, arguing that they are a nuisance.¹⁷

Bekoff's model of compassion and appreciation of the individual is key to his message, and dates back within his profession to the work of Charles Darwin who spoke about differences in degree, rather than in kind, when gazing upon the vast number of species gracing this planet. Bekoff elaborates on the idea of the universal individual who inhabits every species, whether among predator-savvy pronghorns and moose, hypersensitive wolves, or monkeys peeling the bark off the mjonso tree and chewing its pith for medicinal effects. In legal terms, such know-how in the wild provides evidentiary substance to the long-debated appeal for personhood at every juridical juncture. Bekoff's own mother endured a series of strokes that left her physically and mentally impaired. She can hardly move, is wheelchair and bed-bound, but, as Bekoff described to me recently, "every now and again there's a glimmer that shows she is processing some things." Ms. Rose may have no physical autonomy, but she has a large array of legal rights derived solely from her personhood. Yet humans grant little legislative protection to the tens of billions of animals slaughtered annually throughout the world,¹⁸ even though each animal possesses its own distinct glimmer of life, and can be said unambiguously, to be a remarkable being, an individual.

Bekoff, like many of us, is puzzled by this difference in legal and moral attribution to humans and nonhumans that has no scientific basis. Even in California, which boasts some of the most stringent anti-cruelty laws in the United States, the law still exempts farm animals—a typical feature of anti-cruelty legislation.¹⁹ As Steven Wise points out, this legal void dates back to the Roman law of Emperor Justinian.²⁰ Modern lawmakers mindlessly borrowed such ancient legal rules from a time when rulers slaughtered large wild animals for entertainment. Today, these primitive ideas persist in the common law

¹⁵ USDA, *Livestock Slaughter 2002 Annual Summary* 1 (National Agriculture Statistics Service 2003) (available at <<http://jan.mannlib.cornell.edu/reports/nassr/livestock/pls-bban/>>); USDA, *Poultry Slaughter 2002 Annual Summary* 2–3 (National Agriculture Statistics Service 2003) (available at <<http://jan.mannlib.cornell.edu/reports/nassr/poultry/ppy-bban/>>). This includes 36.75 million cattle and calves, 100.3 million pigs, 3.29 million sheep and lambs, 8.72 billion chickens, 271 million turkeys, and 24 million ducks.

¹⁶ Pasadena Mun. Code (Cal.) § 6.28.040 (1964).

¹⁷ European Environmental Press Newsletter, Dec. 7, 2001: Issue 15, <<http://www.eep.org/newsletters/newsletter071201.htm>> (accessed Apr. 5, 2003).

¹⁸ For worldwide statistics of animal slaughter, see Food and Agric. Org. of the U.N., *FAOGLiPHA* <<http://www.fao.org/ag/aga/glipha/index.jsp>> (accessed Apr. 5, 2003).

¹⁹ Cal. Penal Code § 599(c); see Michelle K. Albrecht, *Genetic Engineering Of Domestic Animals: Human Prerogative Or Animal Cruelty?* 6 *Animal L.* 237 (2000).

²⁰ David J. Wolfson, *Book Review* 6 *Animal L.* 262 (2000) (reviewing *Rattling The Cage: Toward Legal Rights For Animals*).

that denies personhood to nonhuman species. Yet Bekoff writes that a mountain of scientific evidence shows that “tool use, language use, and self-consciousness, culture, art, and rationality no longer can reliably be used to draw species boundaries that separate humans from other animals.”²¹ If I interpret Bekoff correctly, he believes that “person” should be broadly defined to encompass all living beings. After all, to cite but one broad comparison, the neurochemicals underlying our emotional states, our genes, and even our rituals are similar to nonhuman species.

Bekoff recounts dozens of ethological observations to underscore his assertion that there is unity in the natural world, despite the wealth of diversity; and that this unison cries out for moral, and hence, legal standing. Bekoff describes seeing one red fox burying another, an occurrence rarely observed by scientists. I personally witnessed a sea otter paying last respects—for three days—to his mate, on an isolated rocky shore in Big Sur. He cites the case of his own dog, Jethro, saving the lives of a rabbit and a bird. Bekoff also refers to the work of biologist Bernd Heinrich who points to true love among ravens; the monogamous nature of at least ninety percent of all bird species; and the “yearning” and “entreaty” calls among raccoon dogs and male golden jackals. Bekoff describes biologist Joyce Poole’s remarkable observations of grief among elephants; instances of surveillance times and self-inventories by flocks of western evening grosbeaks; EEGs that suggest that rats dream of the mazes they have conquered;²² energy savings of V-shaped flight patterns of birds as calculated by scientists at the University of Aberdeen; Rupert Sheldrake’s research into canine telepathy; Nobel Laureate Karl von Frisch’s classic study of brainpower in bees; Dr. Con Slobodchikoff’s research into prairie dog cognition and language-making; Michael Cabanac’s discovery that iguanas seek pleasure; and Barbara Smuts’ encounter with an African antelope grieving over her infant that was killed by an olive baboon.²³ In a similar vein, Bekoff describes an incident in the town of Tezpur, India, where

about one hundred rhesus monkeys brought traffic to a halt after a baby monkey was hit by a car. The monkeys encircled the injured infant, whose hind legs were crushed and who lay in the road unable to move, and blocked all traffic . . . Some of them massaged its legs. Finally, they left the scene carrying the injured baby with them.”²⁴

²¹ Bekoff, *supra* n. 1, at 13.

²² Brown University, *EEG Course and Glossary* <http://www.brown.edu/Departments/Clinical_Neurosciences/louis/eegcrs.html> (accessed Apr. 5, 2003); Bekoff, *supra* n. 1, at 113. Bekoff also reports on research by Steve Sivy of Gettysburg College who has discovered that rats, when anticipating play, show increases in dopamine activity.

²³ Bekoff, *supra* n. 1, at 113. Bekoff writes, “Pala [the antelope mother, named by Smuts] watched a baboon eat her infant, and then she chased the baboon away and gazed at the remaining skin and bones. Pala continued to stand motionless over her infant’s body through the night.”

²⁴ *Id.* at 102.

Bekoff quotes the great ornithologist Alexander Skutch, from his book, *The Minds of Birds*: “Birds so frequently respond to events in tones such as we might use that we suspect their emotions are similar to our own.”²⁵ The data pours in. People for the Ethical Treatment of Animals (PETA) has long argued that fish evidence pain, and the organization fights to save fish from commercial fishing.²⁶ Even invertebrates are given their due, with nerve cells and pain sensors similar to our own.²⁷

We read numerous incidents of this kind, almost as if encountering evidence of extraterrestrial intelligence, only to be reminded that this is our world, the one we live in, and the one we share with millions of other species about whom we know next to nothing, yet presume to control. Notably, Bekoff attempts to force hard science to acknowledge such mystical, emotional truths and endow them with substance. Any rational scientist who reads this book may well surrender to such emotional truths—the clear goal of Bekoff’s book.

But this euphoria of scientific understanding, this Buddhistic embrace of a feeling, loving, grieving, all-knowing universe, leads Bekoff to be “victimized by hope.” He openly realizes that he is a member of the one species on earth that may properly be accused of not playing fair. Where does that leave him, and the science of ethology that he champions? Does it leave him with a science that, regrettably, continues to evolve in the wake of cruel experimental standards?²⁸ Bekoff and Goodall propose guidelines for reducing the number of animals that suffer because of humans. Bekoff writes, “The guiding principles for all of our interactions with animals should stress that it is a privilege to share our lives with other animals; we should respect their interests and lives at all times, and the animals’ own views of the world must be given serious consideration.”²⁹ Would scientific guidelines counter legal apathy? In some states, parking tickets can be more expensive than the misdemeanor fine for spotting a bear at night with bright lights and shooting it.³⁰ Can we muster the kind of strength and

²⁵ *Id.* at 107.

²⁶ PETA, *People for the Ethical Treatment of Animals* <<http://www.peta.org>> (accessed Apr. 5, 2003).

²⁷ Extending rights to invertebrates is a legal challenge, to be sure. Notably, New Zealand’s recent Animal Welfare Act of 1999 is still unwilling to concede that insects have feelings. Ministry of Agriculture and Fishery, *The Animal Welfare Act – A Framework for the 21st Century* <<http://www.maf.govt.nz/biosecurity/legislation/animal-welfare-act/index.htm>> (accessed Apr. 5, 2003).

²⁸ Marc Bekoff and Jane Goodall founded an organization known as Ethologists for the Ethical Treatment of Animals/Citizens for Responsible Animal Behavior Studies. EETA/CRABS, *Mission Statement* <<http://www.ethologicaethics.org/>> (accessed Apr. 5, 2003).

²⁹ Bekoff, *supra* n. 1, at 139.

³⁰ See Ruth S. Musgrave, *State Wildlife Laws Handbook*, Govt. Inst. (1993). Ruth Musgrave and friends at the Center for Wildlife Law at the University of New Mexico have documented the vast variations in existing statutes from state to state. Similarly, Bekoff points to the fact that the Institutional Animal Care and Use Committees (IACUCs) at various universities are also in some state of disarray with respect to the

persuasiveness needed to battle the agricultural lobbies that exert so much power over Congress?

It is at this point in *Minding Animals* that Bekoff posits his most difficult question: “How does one decide that the pain, suffering, and lives of a million mice cost less to the mice than the benefits that are gotten by one or more humans?”³¹ He lists the ethical variables, examines utilitarian and welfare arguments, and adds that, perhaps other mice or chimpanzees will benefit from the suffering of their peers. This argument, however, is intentionally unpersuasive. Bekoff stresses the work of two British scientists, William M. S. Russell and Rex Burch, who published in 1959, *The Principles of Humane Experimental Technique*, in which they argued for “three R’s . . . reduction, refinement, and replacement.”³² Bekoff wonders if these principles were applied broadly in society, would we see more opinions like that of Justice Eric Andell of the Texas Court of Appeals. In 1994, Judge Andell declared:

It is not simplistic, ill-informed sentiment that has led our society to observe with compassion the occasionally televised plights of stranded whales and dolphins. It is, on the contrary, a recognition of a kinship that reaches across species boundaries. The law must be informed by evolving knowledge and attitudes. Otherwise, it risks becoming irrelevant as a means of revolving conflicts. Society has long since moved beyond the untenable Cartesian view that animals are unfeeling automatons and, hence, mere property.³³

Bekoff takes heart that his colleagues are increasingly willing to explore alternatives to intrusive animal research; that vegetarianism is on the rise; that academics are asking questions pertaining to the biophilia hypothesis—the notion, posited by E.O. Wilson at Harvard University, that all sentient beings take pleasure in affiliating with one another; and that students demand humane standards and a more compassionate culture during their education.³⁴ Even Prime Minister Tony Blair demanded, along with his outraged constituency, that at least two pigs—Porky and Phoenix—be spared during the 2001 outbreak of foot-and-mouth disease, while millions of other animals were cruelly exterminated. In a study by Stephen Kellert, between seventy and ninety percent of the public in Europe and the U.S. acknowledged “the right of nature to exist even if not useful to humans in any way.”³⁵ Additional data support this poll, and suggest that people will pay for nature’s services. In a study of 164 students (a few of whom were vege-

standards by which they exert oversight upon animal research protocols. See Bekoff, *supra* n. 1, at 31.

³¹ Bekoff, *supra* n. 1, at 146.

³² Johns Hopkins Center for Alternatives to Animal Testing, *Alternatives to Animal Testing on the Web* <http://altweb.jhsph.edu/publications/humane_exp/het-toc.htm> (accessed Apr. 5, 2003).

³³ *Bueckner v. Hamel*, 886 S.W.2d 368, 377–78 (Tex. App. 1994).

³⁴ See Bekoff, *supra* n. 1, at 60–61.

³⁵ Stephen R. Kellert, *The Value of Life: Biological Diversity and Human Society* (Island Press/Shearwater Books 1996).

tarian, 64 of whom were psychology students and 48 economics students), Bennett and Blaney found that when armed with more information concerning the moral dimensions of an animal welfare issue the respondents showed a “greater perception of social consensus” which resulted in “a higher level of moral intensity [moral imperative] associated with the issue, which in turn was reflected by a higher wtp [willingness to pay] for policy to address the issue.”³⁶ This is good news, indeed. But whether this demonstrates any general principle regarding attitudes toward animal welfare has yet to be seen. The human population is poised to grow to as many as 11 billion in the twenty-first century, while the gap between rich and poor continues to grow wider.³⁷ How other species, most of which are in rapid decline, will fare under this demographic winter, this human fertility game of chicken, with all the consumption, climate, terrestrial and marine arrogation it implies, will be the chief criterion by which legal minds, judges and juries shall find, or not, the necessary calm, cognitive empathy, and trans-species motivation to provide an enriched legal net for animals in the future.

The voice of a past generation rings loud and clear throughout Bekoff’s work and in the words of Barbara Smuts, who Bekoff quotes: “My own life has convinced me that the limitations most of us encounter in our relations with other animals reflect not their shortcomings, as we so often assume, but our own narrow views about who they are and the kinds of relationships we can have with them.”³⁸

³⁶ Richard Bennett & Ralph Blaney, *Social Consensus, Moral Intensity and Willingness to Pay to Address a Farm Animal Welfare Issue*, 23 J. of Econ. Psychol. 501–520, (2002) (available at <<http://www.sciencedirect.com/science/journal/01674870>>).

³⁷ United Nations Population Division, *World Population Prospect: The 2002 Revision Population Database* <<http://esa.un.org/unpp>> (accessed Apr. 5, 2003).

³⁸ Bekoff, *supra* n. 1, at 99.