Humans have long tried to imagine what other species think and how they may feel, projecting our own perspectives and emotions onto the animal experience. The sight of a hawk spiraling effortlessly on an updraft or two horses cantering side by side in a field is enough to inspire wonder about the inner lives of other creatures. And people observing their pets' activities and moods view the existence of cat and dog emotions—in the form of joy, grief, even jealousy—as beyond question.

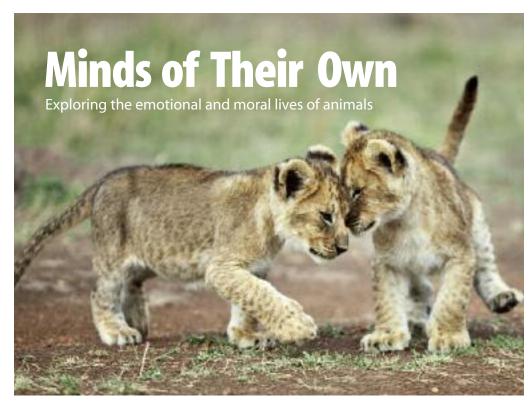
What seems blatantly apparent to many animal lovers, however, is often challenged by scientists as nothing more than sentimental anthropomorphism. Portrayal of animals as lesser beings without

thought or emotion dates at least as far back as the days of Aristotle.

But ethologists engaged in the study of animal behavior are drawing from a growing body of evidence to build a case to the contrary. On the forefront of the burgeoning field are scientists and authors Marc Bekoff and Jonathan Balcombe. After years of researching the emotions of animals, Bekoff began exploring the concepts of morality and justice in their societies, basing his work on animals' adherence to their own sets of rules and the application of punishment in their play. Balcombe studies the capacity for pleasure in

animals, a concept rarely considered within the scientific community.

Now teaching a course on animal minds and behavior for Humane Society University, the two authors have new books out this year. Bekoff's latest, *The Animal Manifesto: Six Reasons for Expanding Our Compassion Footprint*, was published in February; Balcombe's new book, *Second Nature: The Inner Lives of Animals*, is out in March. In the interviews excerpted here, Bekoff and Balcombe spoke with writer Ruthanne Johnson about their work and its implications for our relationships with animals.





Q: What are the origins of your connection to animals?

BEKOFF: I was always asking my parents about what animals were thinking and feeling. When I was about 3 years old, I yelled at a man for yelling at his dog, and [the man] chased my father. I don't really know where it came from, but I was raised in a very compassionate home with a really compassionate mother.

BALCOMBE: If there is an animal gene, I was born with it. At the age of 3, I remember petting a kangaroo [at a sanctuary]. That was a meaningful experience for me.

Q: So you weren't the kind of kid who pulled wings off flies?

BALCOMBE: No, I was the kid who pulled the arms off of people who pulled the wings off flies! I can remember being deeply disturbed with kids stepping on crickets or caterpillars, and coming to the defense of the animal. I guess it's empathy for another being caught up in the struggle of life, like we are.

Q: How did educators and others react to the path you chose?

BEKOFF: A lot of people thought I was nuts to swim against the tide. They would say that play behavior is a waste of time to study [and that] you don't want to start talking about animal protection. But the thing that vindicated me is that I have done good science. And I was never in their face, and I think that comes back to my belief in compassion. I didn't yell at them; I just said, basically, you do what you want to do, and I will do what I want to do, and time will tell if I made a good choice. And it did.

Q: What were some of your first scientific studies of animals?

BEKOFF: Coyotes were the first animals I began to seriously study. Watching them in the field and seeing how smart and emotional they are—and how attached to one another—made me realize how important it was to access their world in order to observe authentic behavior and to see how adaptable they are.

BALCOMBE: When I went to grad school, I gravitated to bats because they are not popular and they are largely misunderstood. The first really strong evidence of something we call reciprocal altruism—where individuals actually keep track of what friends do for them and then they give back to their friends—comes from studies of vampire bats. It showed that individuals will share blood with others, regurgitating it to others who are perhaps ill or to a mother giving birth who cannot leave the roost to forage that night. So they work together as a group and help each other through tough times, and these are values that humans hold really high.

Q: Have you ever had any "eureka" moments while studying animal behavior?

BALCOMBE: Six years ago, when I was bird watching at a nature center in Assateague, Va., I watched two crows fly over and land on a decrepit billboard, and their interaction was clearly pleasurable: One of



them was soliciting a neck rub from the other repeatedly and giving the [other] one a neck rub. They looked like best buddies or maybe a mated pair. That made me think about animal pleasure, which none of my biology teachers addressed, because science has essentially neglected that huge subject. And so I am grateful to those crows because they lit a little light bulb over my head, and life has never been the same.

Q: Why choose animal pleasure as a topic of study?

BALCOMBE: We need to recognize the richness of animal lives—that it isn't just about avoiding pain but also about seeking pleasure. And that has huge moral implications: that life has intrinsic value if you can feel pleasure. Pleasure is pretty distinctive in animals, and there is quite a lot of really great research out there—rigorous studies with repeated,

carefully designed data sets and analyses. For example, rats exhibit laughter and mirth when given neck rubs or being tickled, and a horse's heart rate goes down significantly when he is brushed in certain places where he may be groomed naturally by another horse.

Q: Why choose animal morals as a topic of study?

BEKOFF: It became clear to me that when animals play, there are rules of the game and there is a moral to it and an ethical mood. When they violate the moral code, they pay for it. If animals are moral, it ups the ante in the sense of who they are. Not only are they smart, adaptable, and emotional, but they know right from wrong, and that sends a strong message for their cognitive emotional skills.

Q: Why are some scientists averse to exploring the possibility of animal morality and emotional experience?

BALCOMBE: It's threatening to us because it requires us to revisit the whole paradigm of our relationship with animals. If animals are moral and have virtue and a sense of ethics, then how can we continue to treat them the way we do, to keep them in cages and slaughter them by the billions?



Q: Why are people so drawn to stories about animals, especially those that pose the possibilities of rich emotional lives?

BEKOFF: Because people are feeling an incredible distance from nature and animals. They get busy and their lives are fractured. I have always said that we have old brains and new bottlenecks: We have Paleolithic brains, and we are living in new times, and new times are ripping us away from nature. And people miss it, and the rubber band is expanding, if you will, such that it's going to snap pretty soon.

BALCOMBE: We are all animals, and we know what it's like to be an animal. We experience it in every living, breathing moment. I see a squirrel outside running along the fence, and I'm just captivated. I know that squirrel isn't just alive—she has a life and she has experiences and emotions.

Q: What do you hope your students will take away from your Humane Society University course?

BEKOFF: A better appreciation for animals, not what they are but who they are, and an appreciation for their cognitive, emotional, and moral lives. I also hope this creates an army of animal protection advocates.



Why do lions hunt together when they could reap more of the spoils by going it alone? What possesses older elephants to lie on their sides so younger ones can climb on top and play? How is it possible that wolves can suffer from post-traumatic stress disorder? Humane Society University lecturers Marc Bekoff and Jonathan Balcombe have a simple answer: Emotions aren't the sole province of *homo sapi*ens. And as scientists and writers, they have gathered plenty of examples to back up their claims. Here are some of their favorites.

Empathy

A hormone-crazed male elephant knocked over a female elephant suffering from a leg injury. A third elephant rushed to her aid, touching her trunk to the sore leg as if to kiss the pain away. In another case, an elephant matriarch set free a group of captive antelopes, using her trunk to undo the latches on the gate of their enclosure. These stories recounted in The Animal Manifesto: Six Reasons for Expanding Our Compassion Footprint demonstrate what Bekoff refers to as "wild justice," or animals showing empathy and compassion through unselfish acts. "When beings are in need," he writes, "animals will go out of their way to help them, to keep them from harm, or to teach them how to successfully solve a problem."





Perspective

A study at England's Newcastle University demonstrated that starlings, and by extension probably many other animals, "have ambient emotional states," says Balcombe. A barren cage elicited a different response than a stimulating environment where starlings could fly freely and interact with one another; the ones living in the impoverished environment were unwilling to take chances to find food. In his new book, Second Nature: The Inner Lives of Animals, Balcombe writes that the negative response mirrors that of people with depression or anxiety. "It reminds me that animals don't just live in the moment," he says. "They also have emotional tenor and they have states of being."

Sensory Delight

After a night of feeding on land in Kenya, hippos filmed by wildlife cinematographers Mark Deeble and Victoria Stone returned to a freshwater spring outfitted with an underwater camera system. "When the hippos get in the water, fishes from various parts of the spring come over as if on cue, and the hippos spread their legs, splay their toes, and open their mouths," says Balcombe, reciting one of his favorite examples of animal pleasure. "The fishes nibble away at various parts of their bodies—their teeth, between their toes, and their back, even cleaning their cuts and wounds. It's akin to a spa service, and there is every indication that the hippos really enjoy it, often drifting off to sleep."





Taste as Pleasure

Some reptiles will do anything for a nibble of fresh lettuce, according to a study of captive iguanas. "Iguanas resting in a nice warm terrarium under the sun lamp—with nutritionally complete reptile chow right there below the perch—will leave the warm perch, ignore the chow, and go get the lettuce," Balcombe says, "even though the lettuce is in a refrigerator and getting to the lettuce means going through the cold." The effort not only requires a sacrifice of energy and comfort but rewards the animals with a food of incomplete nutritional value, leaving scientists to the inevitable conclusion: They do it for the taste.

Friendship

When Joanna Burger was bedridden with Lyme disease, her adopted Amazon parrot, Tiko, held a vigil by her bed. "He was there all the time, tending to her," says Balcombe, who wrote about the story in *Pleasurable Kingdom*. "He would nuzzle her and gently nibble her hand, and she describes him delicately laying each strand of her long hair out in a fan shape over the pillow, clearly showing very strong emotions for her." When Burger finally recovered enough to get out of bed and eat, the lovestruck bird "seemed to celebrate. He swooped though the house, chattering, sliding down the banister, 'gleefully' throwing food on the floor, duetting with Joanna's husband Mike, and gobbling pinyon nuts, a favorite food that he'd forsaken during the illness," writes Balcombe.





Loss

A dog's anguish at the end of an enduring friendship was the subject of a tale related to Bekoff following a lecture on animal emotions in Palermo, Italy. As Bekoff shares in *The Animal Manifesto*, a biologist recounted how his dog followed a cart carrying the body of a mule who'd been his companion for 12 years. "When the mule was buried, the dog slowly walked over to the grave of his friend and wailed," Bekoff writes. Unwilling to ascribe motives to the dog's behavior, the

biologist told Bekoff he'd always hesitated to share the story. "But after hearing stories of animals ranging from turtles to magpies to elephants who displayed grief, he was now certain his dog had also grieved the loss of his longtime friend."

Get Schooled

Learn more from experts like Marc Bekoff and Jonathan Balcombe by signing up to attend Humane Society University, which offers 33 courses that lead to an undergraduate degree or graduate certificate in animal studies, animal policy and advocacy, and humane leadership. HSU also offers 45 noncredit courses covering topics including animal advocacy, animal caregiving, humane education, law enforcement, humane leadership, and shelter management. Both online coursework and onsite classes are offered through the Washington, D.C., campus.

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