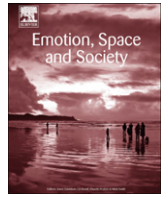


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# Animal emotions, wild justice and why they matter: Grieving magpies, a pissy baboon, and empathic elephants

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The purpose of this brief *ThinkPiece* is to stimulate much needed discussion across disciplinary lines to make for better comparative and evolutionary research concerning animal emotions and morality, areas in which I've been interested for decades. I like to look at our own emotions as gifts from other animals. We have them and so do they. Emotions serve as a *social glue* to bond animals with one another and also *catalyze* and *regulate* a wide variety of social encounters among friends, lovers, and competitors. They also permit animals to behave adaptively and flexibly using various behavior patterns in a wide variety of venues. (Of course, emotions are also important in nonsocial situations and influence how humans and other animals relate to their wider environment).

In addition to questions about animal emotions and how they stimulate interdisciplinary exchanges, I'm also interested in questions such as "Do animals have a kind of moral intelligence, or wild justice?" My answer is "Of course they do", and there is solid scientific theory and evidence that support my views. There are also numerous anecdotes which, when considered collectively, make an important contribution to what we know about animal emotions. I like to say the plural of anecdote is data. (For detailed discussions of animal emotions and wild justice, see Bekoff, 2006a,b, 2007a,b, 2010, and Bekoff and Pierce, 2009 from which some of this material is taken. See also Panksepp, 2005 and references therein.) Let's begin by considering grieving magpies, a pissy baboon, and empathic elephants.

## 1. Grieving magpies

A few years ago my friend Rod and I were riding our bicycles around Boulder, Colorado, when we witnessed a fascinating

encounter among five magpies. Magpies are Corvids, a very intelligent family of birds. One magpie had obviously been hit by a car and was lying dead on the side of the road. The four other magpies were standing around him. One approached the corpse, gently pecked at it, just as an elephant would nose the carcass of another elephant, and stepped back. Another magpie did the same thing. Next, one of the magpies flew off, brought back some grass, and laid it by the corpse. Another magpie did the same. Then, all four magpies stood vigil for a few seconds and one by one flew off.

Were these birds thinking about what they were doing and what were they feeling? Were they showing magpie respect for their friend? Were they merely acting *as if* they cared (see Bekoff, 2007a for a dismissal of the "as if" disclaimer)? Were they just animal automatons? I feel comfortable answering these questions, in order: yes, yes, no, no. I'd never seen anything like this before and hadn't read any accounts of grieving magpies. When I published an essay about this incident I received numerous emails from people who had seen the same ritual in magpies, ravens, and crows. We can't know what they were actually thinking or feeling, but reading their action there's no reason not to believe these birds were saying a magpie farewell to their friend.

## 2. Nasty nick, a pissy baboon

Nick, an olive baboon, was an adolescent when he joined what was known as the "Forest Troop" in the southeast corner of Masai Mara National Reserve in Kenya, and even then you could almost see contempt on his face. So says world-famous Stanford professor Robert Sapolsky (2002), who wrote about Nick in *A Primate's Memoirs*. Sapolsky noted that Nick dominated his age group, and "he was confident, unflinching, and played dirty." Sapolsky is known for speaking eloquently and plainly about animal behavior and he was equally blunt about Nick: "The guy simply wasn't

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nice.... He harassed the females, swatted at kids, bullied ancient Gums and Limp. On one memorable day, he took exception to something that poor nervous Ruth had done and chased her up a tree. Typically, at this point, the female takes advantage of one of those rare instances when it pays to be smaller than the males – she goes to the farthest end of a flimsy branch and hangs on for dear life, depending on the fact that the heavier male can't crawl out to where she is and bite her. And, typically, the male, thwarted, positions himself to at least trap the female, keeping her screaming on the precarious branch until he gets bored. So Ruth gallops up the tree, Nick after her, and Ruth leaps out to a safe edge. Nick promptly climbs onto a stronger, thicker branch directly above her. And then urinates on her head."

### 3. *Babyl and her friends: empathic elephants*

While I was watching a group of wild elephants living in the Samburu Reserve in Northern Kenya, I noted that one of them, Babyl, walked very slowly. I learned that she was crippled and that she couldn't travel as fast as the rest of the herd. However, the elephants in Babyl's group didn't leave her behind when they traveled. When I asked the elephant expert Iain Douglas-Hamilton about this he said that these elephants always waited for Babyl, and they'd been doing so for years. They'd walk for a while, then stop and look around to see where Babyl was. Depending on how she was doing, they'd either wait or proceed. Iain said the matriarch even fed her on occasion. Why did the other elephants in the herd act this way? Babyl could do little for them, so there seemed no reason or practical gain for helping her. Reciprocity wasn't in the picture at all. The only obvious conclusion we could see is that the other elephants cared for Babyl, and so they adjusted their behavior to allow her to remain with the group. Friendship and empathy go a long way.

While it's true that we'll likely never know all there is to know about animal passions, their emotional lives are public and transparent if we pay attention (Bekoff, 2006a). What we know about animal emotions has changed a great deal in the last five years because of rapidly accumulating data from research in cognitive ethology and social neuroscience. When I first began my studies three decades ago, centering on the question 'What does it feel like to be a dog or a wolf?', many researchers were skeptics who spent their time wondering *if* dogs, cats, chimpanzees, and other animals felt anything. I'm glad I wasn't their dog! But now there are fewer and fewer skeptics, and the question of real importance is not *whether* animals have emotions but *why* animal emotions have evolved the way they have. There is a growing interest in animal emotions from researchers in diverse disciplines ranging from biology, psychology, and anthropology, to law, philosophy, and theology. Prestigious scientific journals such as *Science*, *Nature*, and the *Proceedings of the National Academy of Sciences* now publish essays on joy in rats, grief in elephants, empathy in mice, and animals' aversion to being treated unfairly (inequity aversion), and no one blinks. In fact, the paradigm has shifted to such an extent that the burden of "proof" now falls to those who still argue that animals don't experience emotions. A majority of scientists agree with what seems like common sense to most everyone else – many animals have rich and deep emotional lives.

### 4. *Evolutionary continuity: denying emotions and moral intelligence to animals is bad biology*

There are more than good stories that support the claim that animals have rich emotional lives and moral intelligence, although the large number of anecdotes are, in and of themselves, rather compelling. Charles Darwin's (1872/1998) well-accepted ideas

about evolutionary continuity, that differences among species are differences in degree rather than kind, argue strongly for the presence of animal emotions, empathy, and moral intelligence. The notion of wild justice is grounded in evolutionary continuity, which means that animals not only share a broad range of physical traits but also an array of mental and behavioral traits. Evolutionary biologists have accepted the continuity of physical traits since Charles Darwin wrote about this idea in *On the Origin of Species* (1859) and it is now well accepted that animals and humans share a whole spectrum of emotional and cognitive capacities. *Wild Justice* simply builds on this idea, suggesting that the repertoire of moral behaviors is also broadly distributed among animals.

Paleobiologist Stephen J. Gould continually reminds us that Darwin used the phrase "struggle for existence" metaphorically, and that even Darwin understood that bloody and vicious competition is only one possible mechanism through which individuals might achieve reproductive success. Another possible mechanism was proposed by a contemporary of Darwin, Russian anarchist Petr Kropotkin, in his forward-looking book *Mutual Aid*, published in 1902. Kropotkin suggested that cooperation and mutual aid may also lead to increased fitness, and may more accurately fit our actual observations of animals in nature.

In practice, continuity allows us to connect the "evolutionary dots" among different species to highlight similarities in evolved traits including individual feelings and passions. For example, all mammals (including humans) share neuroanatomical structures including the amygdala and hippocampus and neurochemical pathways in the limbic system that are important for processing emotions.<sup>1</sup> We know that elephants suffer from post-traumatic stress disorder (PTSD) and have a relatively large hippocampus. During recent years there have also been many other surprises. We know that mice are empathic rodents – they feel the pain of other mice – and that whales possess spindle cells, which are important in processing emotions. Before this discovery it was thought that only humans and other great apes possessed spindle cells.

To summarize, emotions (and empathy) are keys to survival, without which animals – both human and nonhuman – would perish. That's how important they are. It's bad biology to argue against the existence of animal emotions. It's not important if dog joy or chimpanzee grief isn't the same as human joy or human grief. What is important is to allow that different species may experience their emotions in different ways and that humans shouldn't be the template against which we compare other animals. There's dog joy and dog grief and chimpanzee joy and chimpanzee grief and there are even differences among members of the same species.

### 5. *Wild justice: the moral lives of animals*

Do animals have a sense of morality? Do they know right from wrong? In our book, *Wild Justice: The Moral Lives of Animals*, philosopher Jessica Pierce and I argue that the answer to both of these questions is a resounding "yes." "Ought" and "should", regarding what's right and what's wrong, play important roles in the social interactions of animals, just as they do in ours.

Historically, others agree. Charles Darwin believed that animals, like humans, could be moral beings. He suggested that human morality is continuous with similar social behavior in other animals. Darwin paid special attention to the capacity for sympathy, which he believed was evidenced in a large numbers of animals. Darwin wrote, "Any animal whatever, endowed with well-

<sup>1</sup> For further information, see <http://en.wikipedia.org/wiki/Amygdala>.

marked social instincts ... would inevitably acquire a moral sense of conscience, as soon as its intellectual powers had become as well-developed, or nearly as well-developed, as in man.”

More recently, Jane Goodall noted in her book *The Chimpanzees of Gombe*, “... it is easy to get the impression that chimpanzees are more aggressive than they really are. In actuality, peaceful interactions are far more frequent than aggressive ones; mild threatening gestures are more common than vigorous ones; threats per se occur much more often than fights; and serious, wounding fights are very rare compared to brief, relatively mild ones.” After carefully analyzing the social interactions of various primate species, primatologists Robert Sussman and Paul Garber (Sussman et al., 2005) came to the conclusion that the vast majority of social interactions are affiliative rather than agonistic or divisive. Grooming and bouts of play predominate the social scene, with only an occasional fight or threat of aggression. In prosimians, the most ancestral of existing primates, an average of 93.2 percent of social interactions are affiliative. In New World monkeys who live in the tropical forests of southern Mexico and Central and South America, 86.1 percent of interactions are affiliative, and likewise, for Old World monkeys who live in South and East Asia, the Middle east, Africa, and Gibraltar, 84.8 percent are affiliative. Unpublished data for gorillas show that 95.7 percent of their social interactions are affiliative.

Also consider the following scenarios. A teenage female elephant nursing an injured leg is knocked over by a rambunctious hormone-laden teenage male. An older female sees this happen, chases the male away, and goes back to the younger female and touches her sore leg with her trunk. Eleven elephants rescue a group of captive antelope in KwaZulu-Natal; the matriarch elephant undoes all of the latches on the gates of the enclosure with her trunk and lets the gate swing open so the antelope can escape. A rat in a cage refuses to push a lever for food when it sees that another rat receives an electric shock as a result. A male Diana monkey who learned to insert a token into a slot to obtain food helps a female who can't get the hang of the trick, inserting the token for her and allowing her to eat the food reward. A female fruit-eating bat helps an unrelated female give birth by showing her how to hang in the proper way. A cat named Libby leads her elderly deaf and blind dog friend, Cashew, away from obstacles and to food. In a group of chimpanzees at the Arnhem Zoo in the Netherlands individuals punish other chimpanzees who are late for dinner because no one eats until they're all present. A large male dog wants to play with a younger and more submissive male. The big male invites his younger partner to play and when they play, the big dog restrains himself and bites his younger companion gently and allows him to bite gently in return.

Do these examples show that animals display moral behavior, that they can be compassionate, empathic, altruistic, and fair? Yes they do. Animals not only have a sense of justice, but also a sense of empathy, forgiveness, trust, reciprocity, and much more as well.

The social lives of many animals are strongly shaped by affiliative and cooperative behavior as Jane Goodall wrote above for chimpanzees. Fairness is also an important part of the social life of animals. Researchers Brosnan et al. (2005) discovered what they call “inequity aversion” in Capuchin monkeys, a highly social and cooperative species in which food sharing is common. These monkeys, especially females, carefully monitor equity and fair treatment among peers. Individuals who are short-changed during a bartering transaction by being offered a less preferred treat refuse to cooperate with researchers. The Capuchins expect to be treated fairly. Research by Range and her colleagues (2009) in Austria also shows that dogs expected to be treated fairly. Dogs won't work for food if they see other dogs getting more than they do for performing the same task.

Animals are incredibly adept social actors: they form intricate networks of relationships and live by rules of conduct that maintain social balance, or what we call social homeostasis. Humans should be proud of their citizenship in the animal kingdom. We're not the sole occupants of the moral arena.

The notion of *wild justice* embraces human uniqueness. Saying that animals have moral behavior doesn't degrade human morality, as some people fear. In fact, it helps us see the myriad ways in which human morality is special. Humans are exquisitely social and have incredibly complex and nuanced moral behaviors. Studying moral behavior in nonhuman animals can help us understand ourselves better and can highlight the ways in which we are unique. One of the most important contributions is the development of a shared vocabulary and framework that will enable scientists and philosophers to work together. Terms such as empathy and altruism have no common definition, and so, even though biologists and philosophers study the same phenomena, there isn't much sharing of ideas. One of the purposes of our book, *Wild Justice*, was to help people in different disciplines exchange ideas about behaviors that are important in human and nonhuman societies, such as empathy, cooperation, kindness, social justice, and social tolerance.

*Wild Justice* may also contribute to the philosophical literature on animal rights and animal welfare. Philosophers who write about animals have not explored in any detail the implications of moral behavior in animals.

The study of moral behavior in animals also has implications for our understanding of human morality. Animal morality may open the door to a whole new area of philosophical investigation and suggests new ways of thinking about old problems. For example, our work speaks to the question of moral agency in nonhuman animals and the related question of whether agency should continue to be a central category in philosophical ethics. Research from psychology and neuroscience suggest that most moral behavior occurs below the radar of consciousness; so “agency” cannot be said to be the primary defining characteristic of human moral behavior.

## 6. Animal emotions, morality, and why they matter

Our relationship with other animals is a complex, ambiguous, challenging, and frustrating affair, and we must continually reassess how we should interact with our nonhuman kin. Part of this reassessment involves asking difficult questions. Thus, I often ask researchers who conduct invasive work with animals or people who work on factory farms, “Would you do that to your dog?” Some are startled to hear this question but it's a very important one to ask because if someone won't do something to their dog that they do daily to other dogs or to mice, rats, cats, monkeys, pigs, cows, elephants, or chimpanzees we need to know why.

We know a lot about animal emotions, sentience, and moral behavior. While we obviously have much more to learn, what we *already know* should be enough to inspire changes in the way we treat other animals. We need to turn our knowledge into action. We must not simply continue with the status quo because that is what we've always done. What we know has changed, and so should our relationships with animals. Quite often what we accept as “good welfare” isn't “good enough.”

When people tell me that they love animals because they're feeling beings and then go on to abuse them I tell them that I'm glad they don't love me. Recognizing that animals have emotions is important because animal feelings matter. Animals are sentient beings who experience the ups and downs of daily life, and we must respect this when we interact with them. The word “animals” doesn't refer only to the companions with whom we live, care for, and love: billions of other domesticated animals live on farms and in slaughterhouses and

provide us with food and clothing, and wild animals are continually faced with trying to share our ever-crowded world.

Humans have enormous power to affect the world any way we choose. Daily, we silence sentience in innumerable animals in a wide variety of venues. However, we also know that we're not the only sentient creatures with feelings, and with the knowledge that what hurts us hurts them comes the enormous responsibility and obligation to treat other beings with respect, appreciation, compassion, and love. There's no doubt whatsoever that, when it comes to what we can and cannot do to other animals, it's their emotions that should inform our discussions and our actions on their behalf.

Some say life is too short to ponder if animals have feelings, and I agree. However, I also feel that life is too long to ponder whether animals have emotions. The suffering that numerous animals endure while some researchers try to figure if they're feeling anything at all is unacceptable, cruel, and needless given what we know about animal emotions and sentience.

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