bovocentric. How, then, could humans be other than homocentric? But while we may, and perhaps must, accept that human values and experience determine the standpoint from which we project outward, it does not necessarily follow that overcoming or at least mitigating the more harmful effects of our anthropocentric outlook is an impossible goal. The human viewpoint is an anchoring reference to which we will always return, but this does not mean that all values must in the end be human-centered or that we must continue, in our thinking, to place ourselves above all else, at all times, at the center of significance. We should not conclude that empathy and connection with nonhuman nature are unavailable to us merely because we happen to belong to the species Homo sapiens, any more than we should conclude that it is beyond us to empathize and connect with fellow human beings just because we all happen to be individual, separate subjects of consciousness with our own peculiar identities. Perhaps it is not too great a step to recognize that in the natural world there are nonhuman entities and configurations possessing their own intrinsic value. How far we can and should try to extend ourselves beyond our foundational anthropocentrism, therefore, is something that cannot be decided in advance, and only time will tell how successful we might become at this or whether we might evolve into beings who can coexist with our own kind as well as with nonhuman species.

See also Animal-Human Interactions, Ecological Inclusion, Empathy for Animals, Religion and Animals

Further Reading


Michael Allen Fox

ANTHROPOMORPHISM

Anthropomorphism is, at its most general, the assignment of human characteristics to objects, events, or nonhuman animals. Notably, belying this neutral definition is a non-neutral connotation to the word and to the phenomenon it describes. Specifically, an anthropomorphic characterization is generally held to be an erroneous one—at best, premature or incomplete, and at worst, dangerously misleading. That anthropomorphism is, further, incorrect as a description is often assumed.

Of greatest relevance to the study of animal rights and welfare are anthropomorphisms of animals as having attributes and mental states (especially emotional and cognitive) similar to human attributes and mental states. Pets are regular subjects—a dog’s love, rapid tail-wagging explained as guilt for eating a shoe, or a cat rubbing against its owner interpreted as an expression of fondness. The pain or grief of laboratory animals is often evoked by those pressuring for improvements in the animals’ welfare. Research in the recently developed field of cognitive ethology accumulates empirical data on precisely the kinds of mental states that anthropomorphism claims (without the backing of science): the purposes, feelings, motivations, and cognition of animals. Thus, the science and the attributions are interwoven. This is the form of anthropomorphism with which we shall primarily concern ourselves in this essay.

The Meaning of the Term

As we shall see, anthropomorphizing is generally disapproved of in describing animals. By its very definition, anthropomorphism is the misapplication of attributes of words used to describe humans. Some excuse anthropomorphism as simply a form of analogy. “My dog loves that little poodle,” one might say, is a claim of the presence of emotions between dogs that is analogous to those emotions in humans. In other words, the dog may not feel “love,” per se, but something like love: he follows her around, he wags his tail uncontrollably when she appears, he persists in attempting to mount her ... and so on, more or less just like human love. This is credible, although it does not exempt anthropomorphizers from criticism on factual grounds, if the claim is without scientific support. But even if all anthropomorphisms are simply analogies relying on similarities between the target and the source, not all such analogies are anthropomorphisms. Forming analogies between humans and other animals is regularly considered nonanthropomorphic. For instance, dissection of a sheep’s brain in a class on human cognition is not taken to be an anthropomorphic activity. On the other hand, protests outside the classroom making claims about the suffering of the sacrificed sheep may be.

A Brief History of Anthropomorphism

Anthropomorphic representation appeared in Paleolithic art 40,000 years ago, when some drawings of animals included characteristically human features; anthropomorphisms have appeared in human writings for thousands of years. All religious systems include anthropomorphisms. Ancient societies projected motives and emotions onto natural phenomena—angry winds, vengeful storms—and animals and natural events were often named and ascribed personalities. Later, even physics was to be influenced by an anthropomorphic teleology. Aristotle described a rock’s downward tumble not as the result of a force between bodies, but as the rock acting to achieve the desired end of being on the ground. Both ancient and modern literature as well as folk psychology are replete with anthropomorphic language. The characterizations of Aesop—the happy dog, the persistent tortoise, the industrious ant—resonate and endure to this day.

Repechage for anthropomorphisms has appeared for nearly as long as the anthropomorphisms themselves. Xenophanes (sixth century bc) was the first to give
voice to the negative tone of anthropomorphism; soon, the term was appropriated to mean the blasphemous descriptions of gods as having human form and attributes. Modern critiques date to the 17th-century philosophers Francis Bacon and Benedictus de Spinoza. In fact, the rise of modern science is matched by the diminishment and increasing censure of anthropomorphic descriptions of natural phenomena. Many of our practices toward animals, and the traditional view of humans as the acme of the animal kingdom, would be difficult to maintain in the face of a collapse in the division between man and animals.

In its current usage, anthropomorphism is tinged with the bad flavor that the anecdotalism of late 19th-century scientists like Charles Darwin and George Romanes left in science’s mouth. While on the one hand epitomizing modern science, Darwin also embraced a classically anthropomorphic attitude toward animals, ascribing everything from emotions to insight to animals with abandon—and the future sciences of zoology, biology, and ethology developed in reaction against this. A comparison of the languages of description makes the distinction clear. Darwin spoke of “ants chasing and pretending to bite each other, like so many puppies” (1871, p. 448). A century later, a more typical description of the study of ants (taken from the Web site of the Polish Necker Institute’s ethology research group) investigates the “neurochemical mechanisms underlying the phenomena of social reward and social cohesion in ant colonies” and “the role of social context in the control of expression/suppression of various elements of ant behavior.” Similarly, while Darwin noted that dogs could be variously magnanimous and sensible, shameless and modest, sensible and proud, these words are notably absent from contemporary ethological descriptions of dogs.

**Explanations for Anthropomorphism**

Why do we anthropomorphize? Anthropomorphism’s endurance marks it as likely useful—or at least not irreplaceably harmful—in explaining and predicting animal behavior. Just as the developing child uses animism—the attribution of life to inanimate objects—to make sense of the sensory chaos of his environment, anthropomorphism may have arisen as a strategy to make familiar an uncertain world. In normally developing humans, our characteristic propensity to attribute agency to others can become a theory of mind, and will find use in social interaction. In the development of the human species, anthropomorphism may have provided a means by which to anticipate and understand the behavior of other animals. With themselves as models, our human forebears could ascribe motivation, desire, and understanding to animals to determine with which ones they might want to cooperate or from which ones they should flee—as well as which ones they want to eat. If there is an evolutionary explanation, we might expect other animals to engage in some version of the behavior. In fact, many animals do appear to attribute animal characteristics to inanimate objects or occurrences—what anthropologist Stuart Guthrie has called zoomorphism. In The Descent of Man, Darwin described his own dog growling and barking at an open parasol moving in a breeze, as though in the presence of “some strange living agent” (1871, p. 67). Primatologist Jane Goodall observed chimps making threats toward thunderclouds. Other ethnologists have noted animals shying from, stalking, or attempting to treat as prey or playmate a variety of natural objects. Nonhuman animals seem to be subject to a similar version of animistic perception as humans. However, we do not anthropomorphize all animals: gorillas and dogs are regularly anthropomorphized, but worms and mantis rays rarely are. Frogs’ lack of anthropomorphizable characteristics may have led to their dismal fate at the dissecting table when dissection was a mainstream of biology classes. What are the behaviors and physical features of animals which prompt us to anthropomorphize them?

The answer no doubt has much to do with the ease with which the animal can be mapped to the human, in terms of isomorphisms of features and similarities of movement. Physically, phylogenetic relatedness accounts for some anthropomorphizing (for example, of great apes and monkeys); simple ease of matching of parts may account for other differential treatments (an eel’s lack of limbs, the facelessness of a limpet). In particular, discernible and flexuous facial features, the ability to form a mouth into a smile, and the ability to move the head expressively and reactively are reliable prompts to certain kinds of anthropomorphisms. Paleontologist Stephen Jay Gould and ethnologist Konrad Lorenz both noted that animals with neonitized features, for example large heads and big eyes, may prompt affiliation and selection because these are features of human juveniles.

**Arguments against and for Anthropomorphism**

The primary complaint against anthropomorphizing extends the reaction to the anecdotalism of Darwin and others: anthropomorphism is not based in science.

There is no objective theory formation or testing, no careful consideration of evidence; there is merely unreflective application of human descriptions to nonhumans. Some argue that anthropomorphism is a category error, that is, the treatment of an entity (an animal) as a member of a class (things with minds and emotions) to which it does not belong, or the comparison of that entity to one (such as a human) belonging in a different category. Describing a dog as feeling guilt, they claim, is like saying that ideas are green. Those who assert that there are distinctively human traits might so argue: if the trait is, by definition, what separates humans from animals, then to treat an animal as possessing the trait is a logical error. If consciousness is a defining characteristic of humans, for instance, then to claim consciousness in nonhumans is a category mistake.

Indeed, some anthropomorphisms are clearly wrong for just these reasons. Happiness is commonly attributed to an animal on the basis of an upturn of the corners of its mouth; that which appears to be a smile, however, may be a fixed physiological feature (as with dolphins) or a sign of fear or submission (as with chimpanzees), not happiness. Similarly, boredom, as monkey’s yawn is likely not a sign of boredom, as might be assumed by extrapolation from our own behaviors; instead, it denotes stress.

Still, the implied suggestion that any mental ability exhibited by human beings is necessarily exclusive to humans is itself premature. A number of researchers are increasingly proposing a careful application of anthropomorphic terms to explain and predict animal behavior. Interestingly, it is the professional observers of animals who often become, with exposure and despite their training, more
Anthropomorphism is not necessarily incorrect. On the contrary, they say, anthropomorphisms are used in reliable ways and are useful. The comparative psychologist Donald Hebb discovered, for instance, that taking pains to eliminate anthropomorphic descriptions resulted in a diminished understanding of the behavior of his chimpanzees. Anthropomorphisms, carefully applied, may be coherent guides to predicting the future behaviors of animals. The psychologist and biologist Goedert Burghardt proposed using a critical anthropomorphism in science which accepts the inevitability of the tendency to see animals in this way, yet uses informed anthropomorphisms to develop hypotheses that can be empirically tested.

The Future of Anthropomorphism

The claims of anthropomorphisms are, often, scientifically proven—simply extrapolations from our own conditions. The onus of science is to find the means to confirm or refute these assertions. Hence the future treatment of anthropomorphism by science should include empirical testing of specific attributions. In the case of attributions of mental states, the process should include a deconstruction of the concepts attributed—from love and guilt to happiness and depression—and a determination of any behavioral correlates, as well as what would count as confirming or disproving evidence of the presence of the attributional state.

The status of anthropomorphism, and the content of its attributions, is highly relevant in the ongoing discussion of the role of animals in our society: as pets, as food and entertainment, and in medical and behavioral research. They can be used to effect change in public perception or even policy. Ascribing personalities to animals is demonstrably more effective than raw statistics in getting the public to consider an animal’s or species’ plight. An analysis of the content—the work of cognitive ethology—will be relevant to animal law and animal rights movements. If, for instance, attributions of human-like emotional experiences and cognitive abilities to chimpanzees turn out to be correct, the question of the rights we should grant that animal is raised.

Historically, anthropomorphisms have been used to attempt to uncloud, demystify, or get traction in domains unknown (and perhaps unknowable) to humans, such as the subjective experience of an animal. They might be best thought of as attributions of human qualities to nonhumans not proven to bear these qualities. The science of cognitive ethology may provide such proofs. Anthropomorphism will likely continue regardless.

See also Critical Anthropomorphism

Further Reading


Alexandra C. Horowitz

ANTHROPOMORPHISM: CRITICAL

ANTHROPOMORPHISM

Anthropomorphism can be useful in studying and interpreting animal behavior if applied critically. This means anchoring anthropomorpheric statements and inferences in our knowledge of the species' natural history, perceptual and learning capabilities, physiology, nervous system, and previous individual history. That is, if we ask what we as humans would do in the animal's position, or how we would feel if treated like the animal, we must apply all the information we know about the animal as well as our own experience. For example, given what we know about dogs, it would be safe to infer that a kicked dog that is whining and squealing is feeling pain. Putting ourselves in the dog's place is acceptable in this situation, since dogs are mammals with a physiological organization similar to ours. We would not be safe in concluding that the dog is feeling pain in exactly the same way we do, however. We are on less solid ground, from a critical anthropomorpheric perspective, in concluding that an earthworm on a fishing hook is feeling pain in any way comparable to our pain when stuck. This is because we know far less about the earthworm's nervous system. We could, though, conclude that the experience is aversive to the worm, since it avoids or tries to remove itself from such situations. Worms squirm to avoid predation, so such behavior is adaptive.

An important use of critical anthropomorphism is to help pose and formulate questions and hypotheses about animal behavior. Although we can never directly experience what another animal, including another human being, thinks or feels, we can make predictions as to what the animal or person would do using anthropomorphemic methods. Insofar as we ground them on real similarities across individuals, our predictions may be very accurate and replicable. Enough research may even allow us to claim that the subjective mechanisms are comparable as well as the behavioral responses. Many of the greatest comparative psychologists and ethologists have acknowledged their use of anthropomorphemic insights in formulating ideas and generating experiments in animal behavior. However, this is rarely stated in scientific reports, especially in this century. As the scientific culture has shifted, there needs to be more encouragement of the process of critical anthropomorphism in all areas of animal care, agriculture, and research.

Why is critical anthropomorphism necessary? In numerous instances an animal behavior, this is rarely stated in scientific reports, especially in this century. As the scientific culture has shifted, there needs to be more encouragement of the process of critical anthropomorphism in all areas of animal care, agriculture, and research.