

Anthropomorphism

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Origin of the Term

Anthropomorphism is not a term used with great rigor in psychology or other academic fields, and hence, it is difficult to define precisely. The term, along with its verb form, *anthropomorphize*, has Greek roots meaning "formed like a man." In English and American dictionaries, it is usually defined broadly as "the attribution of human form or characteristics to nonhuman entities." The connotation is generally negative. Early uses in the English language in the 17th, 18th, and 19th centuries almost always referred to misguided tendencies to ascribe human form or human characteristics to the Judeo-Christian deity. Such attributions were considered by some theologians to be demeaning, given that the deity was believed to be immortal, incorporeal, omniscient, and omnipresent, with humans falling far short of the mark. Some authors speak of "animism"—the ancient belief that all objects, living and nonliving, are occupied by living spirits—as an early form of anthropomorphism.

Deities and spirits tend to be of little concern in modern psychology, of course. To the extent that the term is used at all in the modern field, it usually refers to the tendency to ascribe human characteristics—(especially feelings, thoughts, and intentions) to nonhuman animals. Again, the term is almost always used pejoratively, suggesting that such attributions are faulty.

How the use of the term shifted from deities to rats is not clear, but Darwin's (1859) theory of evolution was probably the major catalyst. The theory of evolution emphasized the continuity among species. Even though Darwin's initial defense of the theory focused on physical,

rather than psychological, characteristics, his argument that humankind was descended from nonhuman animals encouraged the practice of attributing human characteristics to nonhuman animals. In a later work, *The Expression of the Emotions in Man and Animals*, Darwin (1872) explicitly defended the view that species share emotional and mental characteristics. Before the theory of evolution had its impact, people tended to draw a sharp distinction between humans and nonhuman animals. In the 1600s, Descartes characterized animals as mere machines; evolutionary theory blurred the distinction between animals and people, suggesting that nonhuman animals think, feel, and have intentions, just as humans do.

People have always been fascinated by nonhuman animals, in part because we depend on them for food and companionship, but Darwin's writings stimulated especially careful observations of the behavior of nonhuman animals, which led, in the 20th century, to the creation of both comparative psychology and ethology.

The practice of attributing human psychological characteristics to nonhuman animals has been staunchly defended and just as staunchly attacked. Curiously, the theory of evolution has been used to defend both extremes, as well as a more moderate view. At one extreme, 19th-century "naturalists" used Darwin's theory to defend anthropomorphism. For example, George J. Romanes (1848–1894), an English biologist, argued strongly that mental processes were continuous in humans and nonhuman animals. In his 1882 book *Animal Intelligence* (considered by some to be the first book of comparative psychology), he noted that all attributions of thoughts and feelings depended on "the

activity of organisms," even when we were speaking about our fellow human beings. Thus, we should be able to make similar inferences based on the activity of nonhuman animals. Repetitive or reflexive activity did not qualify, he argued, but activity suggesting that an animal "learns" was sufficient to make attributions of mental life. According to Romanes:

The criterion of mind, therefore, which I propose . . . is as follows: Does the organism learn to make new adjustments, or to modify old ones, in accordance with the results of its own individual experience? If so, the fact cannot be due merely to reflex action . . . (Romanes, 1882, p. 5)

If we observe an ant or a bee apparently exhibiting sympathy or rage, we must either conclude that some psychological state resembling that of sympathy or rage is present, or else refuse to think about the subject at all; from the observable facts there is no other inference open. The mental states of an insect may be widely different from those of a man, and yet most probably the nearest conception that we can form of their true nature is that we form by assimilating them to the pattern of the only mental states with which we are actually acquainted. And this consideration, it is needless to point out, has a special validity to the evolutionist, inasmuch as upon his theory there must be a psychological, no less than a physiological, continuity extending throughout the length and breadth of the animal kingdom. (p. 10)

Another Englishman, C. Lloyd Morgan (1852–1936), took a more moderate stance: Just as evolution had produced gradations and differences in physical characteristics, so, too, should it produce gradations and differences in psychological characteristics. Thus, mind must exist in different degrees in different species. The wholesale attribution of *human* characteristics to all nonhuman animals species could not, he argued, be justified by the theory of evolution. Morgan's famous "canon" (see Thomas, this volume), a call for conservative interpretation in psychology, has sometimes been described as a rejection of anthropomorphism or even of animal mind. In fact, the canon is simply a call for parsimony (Costall, 1993; Epstein, 1987; Epstein 1996). We should

not, he said, interpret an action in terms of "a higher psychical faculty" when "one which stands lower in the psychological scale" will suffice.

Extreme opposition to anthropomorphism came from early behaviorists. By the late 1800s and early 1900s, the systematic study of animal behavior by Pavlov, Thorndike, and others had shown that such behavior could, in many instances, be accounted for without any reference at all to mental processes and in terms of simple "laws of conditioning"—a return, it seems, to the mechanistic position advocated by Descartes. With findings of this sort accumulating, it was inevitable that Darwin's view would soon be turned on its head: If the behavior of nonhuman animals can be accounted for in simple, mechanistic terms, then—because evolutionary theory teaches us that humans are part of the animal kingdom—it follows that all *human* behavior can be accounted for in such terms.

The American behaviorist B. F. Skinner (1904–1990) was a staunch defender of this extreme view and believed that all behavior, human and nonhuman, could eventually be explained without reference to intentions, feelings, or the mental world. In his first book, *The Behavior of Organisms* (1938), he argued that "popular" practices, such as "empathizing" and "anthropomorphizing," were unacceptable in an experimental science, since they necessarily biased the observer. Skinner's position is typified in the Brelands' book *Animal Behavior* (1966), which identifies anthropomorphism as a "dangerous pit," typical of "prehistoric" thinking and vacuous analysis. Without defending the practice, they also note how easy it is to be guilty of it:

It is virtually impossible to describe the actions of an animal without *some* human bias—a dash of anthropomorphism seems to be inevitable, simply because we are human and must see animals through human eyes and human experiences. However, we are thoroughly aware of the dangers of ascribing human motives and traits to animals. Probably more than most experimenters, we are able to see animals as animals and to interpret their behavior in the light of their own life system. (p. 12)

The debate about anthropomorphism continues to this day, with all three of the perspectives described above still flourishing. The rise of

cognitive psychology in recent decades has brought with it a new wave of conspicuous anthropomorphizing, typified by the writings of Donald R. Griffin (e.g., *Animal Thinking* [1983]). Many popular writings, such as Thomas's book *The Hidden Life of Dogs* (1993), continue to speak of the mental and emotional life of animals in the same uncritical way Romanes did 100 years ago, while scholars (e.g., Burghardt, 1985; Caporael, 1986) defend a more moderate approach. That humans and nonhumans share neural systems is undeniable, and the fact that we have lived in similar environments throughout our evolutionary history can hardly be ignored. The question remains: To what extent is it helpful to extrapolate from humans to nonhumans in matters involving thinking, feeling, and intention? The question has never been answered definitively, and the theory of evolution has shed no light.

The term *anthropomorphism* itself seems always to be used pejoratively, even though the practice of attributing human characteristics to nonhuman animals is defensible. Surprisingly, those who defend the practice have not been successful in renaming it, although "critical anthropomorphism" has been offered as a less pejorative form. Defenders have also been unable to cleanse the term of its negative connotations. With this in mind, the term *anthropomorphism*, as used in the behavioral sciences today, should probably be defined as "the *inappropriate* attribution of human characteristics to nonhuman animals." The *appropriate* attribution of human characteristics to nonhuman animals could conceivably be called "anthropozoism," suggesting the objective search for commonality rather than the anthropocentric imposition of characteristics.

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