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# Aristotle, The Scale of Nature, and Modern Attitudes to Animals

BY JULIET  
CLUTTON-BROCK

GEORGE GAYLORD SIMPSON, one of the great biologists of this century, began his book on *The Principles of Taxonomy* (1961) with the statement that, "Any discussion should start with a clear understanding as to what is to be discussed." What will be discussed here is how the animal kingdom has been classified in the European-speaking world since the time of Aristotle, and how these classifications have affected our attitudes to animals today. I will start with the dominating role that Aristotle played in European civilization for an incredible length of time. Then I will go on to discuss how this dominance began to crack in the eighteenth century, and how it was finally broken apart in the nineteenth century, nearly 2000 years after Aristotle's death. Broken apart it may have been, yet Aristotle's philosophy is still with us today; it is the backcloth to our attitudes to animals, and, in fact, to the whole way we live and think, even if we do not agree with the *Encyclopaedia Britannica*, which as late as 1875 claimed that many of Aristotle's works, "make an excellent curriculum for training young men and fitting them for the superior business of life."

## *Aristotle's Life and His Books on Natural History*

Aristotle was born in 384 BC and died, aged 63, in 322 BC. Like Darwin, whose breadth of knowledge on natural history

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may have been almost comparable, Aristotle was described as always having “weak health.”

After the death of his father in 367 BC, Aristotle, who was then 17 years old, went to live in Athens. There he spent the next twenty years studying under Plato. Plato died in 348 BC, aged 81, and then Aristotle went to live in Lesbos, where at the request of King Phillip of Macedon, he became tutor to Phillip’s son, the young Alexander, later to become Alexander the Great. In 336 BC, Aristotle returned to Athens where he established his school in the garden Lyceum, teaching as he walked about, from which his school of philosophy came to be known as *Peripatetic*. Aristotle’s books would probably have been written first on papyrus or parchment, and it has been claimed that they were the basis of the famous library in Alexandria which was later to be destroyed. It is not known if any of his books survive in their entirety; it is more likely that what remain are mostly notes and materials for lectures that Aristotle gave to his students. However, the knowledge about zoology that is contained in the works we have will never cease to amaze the reader who can learn an enormous amount, even today, from his translated books. I will quote just one example from the *History of Animals* on the incubation habits of birds to give a taste, which I hope will inspire more people to read the works of Aristotle for information as well as pleasure:

I mentioned when speaking of pigeons that the male and female take it in turns to sit on the eggs. Most other birds do the same, but the males of some kinds sit only long enough to give the female time to get herself some food. The nests of all marsh birds are built near swampy and grassy places, and as a result of this the birds can remain sitting quietly on the eggs and get some food for themselves and so not go without eating altogether. Among crows, too, the females only sit on the eggs, and remain on them from start to finish: the males fetch food for them and feed them. The female wild pigeon begins to sit in the afternoon and stays on the eggs all night until breakfast time; the male sits for the remainder of the day (Peck, 1970, VI. viii 564a 10–15).<sup>1</sup>

When discussing the truly remarkable influence of Aristotle

it is first of all necessary to remember that he lived more than 300 years before the birth of Christ. He had no microscope, no knowledge of the circulation of the blood, or of gravity, or of the solar system, or even that the world was round. He believed that the Earth was stationary and the center of the world; he thought the seven planets (including the sun and moon) moved around the earth in oblique courses to the left, while the outer heaven or sphere of the stars, composed not of perishable matter but of divine ether, moved from left to right with perfect and regular motion returning on itself, deriving its motion from an encompassing essence which itself was not moved.

*Aristotle's Belief in the Four Causes*

Aristotle, and probably most of his contemporaries, believed that the universe was a continuous chain; at one end was the purely potential, matter without form or qualities; at the other end was the actual, which was ever existent. The actual always had to precede the potential. Thus, the seed was the potentiality of the plant, and the plant must always have preceded the seed, the fowl the egg, and so on. This was the system of cause and effect, which made up what Aristotle called "Nature" and which he believed was of eternal duration, although it could be modified and altered by two unpredictable elements of Causation, chance and the will of Man. Aristotle's beliefs about the natural world thus were based on the philosophy of Causes, or what we might call today "reasons." To know, said Aristotle, was to know by means of Causes. A thing was explained when you knew its Causes, and a Cause was that which was responsible, in any of four senses, for a thing's existence (Peck, 1970, p. xxxviii). If we take a pigeon as an example, then the four Causes that explain its existence would be: (1) The Motive Cause: the parent pigeon which produced an egg; (2) The Material Cause: the pigeon's

egg and its nourishment; (3) The Formal Cause: the egg as it developed and hatched into a chick that had the characteristics proper for a pigeon; (4) The Final Cause: the end towards which the process advanced, the perfected pigeon.

The Final Cause was the one of paramount importance to Aristotle and the one which dominated every process. His approach to the natural world was, therefore, teleological, that is, he believed that everything in Nature had a purpose, and this purpose was for the benefit of Mankind. He wrote, "plants are evidently for the sake of animals, and animals for the sake of Man; thus Nature, which does nothing in vain, has made all things for the sake of Man" (Peck, 1970, p. xli). And please note that whenever I say Man, I mean men and not women.

So far, I have given a very brief summary of how Aristotle and probably all his contemporaries looked at the natural world, and there does not seem to be anything very spectacular and unalterable about this outlook. However, I want to come now to the great importance of Aristotle's zoological works, which is that they were the first attempt in Europe to observe and describe individual living animals in a scientific way. He wished to deal with what can be known for certain and to express this in exact language, and his method of obtaining information was by observation and by the dissection of dead animals in the same way that zoologists learn today.

Aristotle's investigations into zoology are compiled into a series of books, known as the *History of Animals* (Peck, 1965, 1970; Balme, 1991), the *Generation of Animals* (Peck, 1990), and the *Parts of Animals*, the *Movement of Animals*, and the *Progression of Animals* (Peck and Forster, 1983). He wrote about more than 500 species, including shellfish, insects, birds, reptiles, and quadrupeds, with humans being treated in the same way as all other animals. The breadth of knowledge covered by these books is so great that it is hard to believe that one man could have learned so many facts if it were not that we know some naturalists in later periods, including Charles Darwin, were equally erudite and prolific. All the same, it is

often claimed that Aristotle's works are the compilations of many authors. Certainly, his descriptions of animals were much quoted in the later classics, such as Pliny's *Natural History* and Aeolian's *On Animals*.

According to Aristotle, the purpose of his *History of Animals* was to obtain information through investigation, that is, to ascertain facts about each kind of animal, and then, as a second stage to find out the Causes of these observed and recorded differences (Peck, 1970, I.vi 491a.10). In the *History of Animals*, the parts themselves are described, for although this work is to some extent physiological, its main object was to deal with the anatomy of organisms. However, a great deal is also written about the habitats of animals and their behavior, for example:

Again, some are mischievous and wicked, e.g., the fox; others are spirited and affectionate and fawning, e.g., the dog; some are gentle and easily tamed, e.g., the elephant; others are bashful and cautious, e.g., the goose; some are jealous and ostentatious, like the peacock.<sup>2</sup> The only animal which is deliberative is Man. Many animals have the power of memory and can be trained; but the only one which can recall past events at will is Man (Peck, 1965, I.i 488b.20–25).

In the *Parts of Animals* (Peck and Forster, 1983), Aristotle takes the view of life known as internal finality, that is that each individual, or, at any rate, each species, is made for itself, that all its parts conspire for the greatest good of the whole and are organized in view of that end but without regard for other organisms or kinds of organisms.

### *The Scale of Nature*

I come now to the views of the ancient Greeks on taxonomy and the classification of animals. Division of the animal kingdom is older than Aristotle; in Plato's philosophy the highest genus was divided by means of differentiae into

subsidiary genera, and each of these was then divided and subdivided by dichotomy until the ultimate species was reached (which is the opposite system of classification to that of Linnaeus, as I will show later). Aristotle clearly disagreed with Plato's system of dichotomous subdivisions (Lloyd, 1968, p. 86). At the upper end of Aristotle's scale he had main groups, such as bird and fish, which were his genera, and at the lower end the commonly named animals such as dog, cat, eagle, and so on, which were his species, but normally the intermediate stages are missing (Peck, 1965, I.vi. 490b.10).

Aristotle did recognize a Scale of Nature, but the rungs of his ladder were not the stages of a taxonomic scheme, and there is no evidence that he felt they should be. His purpose was not to construct a taxonomic system but to collect data for ascertaining the Causes of the observed phenomena; this was to be done by looking to see whether certain characteristics are regularly found in combination: this was how the clues to the Causes would be brought to light. Aristotle believed that human beings were animals, but, at the same time, he was certain that all other animals existed for the sake of Man. He asserted that it was impossible to produce a neat hierarchical order on the basis of obvious physical differences because these cut across each other. This view runs right through all Aristotle's writings on zoology and is closely argued in the *Generation of Animals*, for example:

Actually there is a good deal of overlapping between the various classes. Bipedes are not all viviparous (birds are oviparous) nor all oviparous (Man is viviparous); quadrupeds are not all oviparous (the horse and the ox and heaps of others are viviparous) nor all viviparous (lizards and crocodiles and many others are oviparous). Nor does the difference lie even in having or not having feet (Peck, 1990, II.i. 732b.15–20).

And so Aristotle goes on and on describing the similarities and differences between different kinds of animals, and for 2000 years he had no notable successor. In the eighteenth

century, animals were still described in Aristotle's terms, as, for example, in a treatise on domestic pigeons which states: "All animals are distinguished into three sorts; oviparous, or such as are formed from an egg; viviparous, or such as are produced from the uterus alive and in perfection; and vermiparous, or such as are formed from a worm" (Moore, 1735).

This mention of the *perfection* of viviparous animals brings me to the last point that I shall discuss in Aristotle's philosophy. Although he made no clearly defined statement about a taxonomic Scale of Nature, it could be said that, in Aristotle's words, his most important tenet was: Nature's rule is that the perfect offspring shall be produced by the more perfect parent (Peck, 1990, II.i. 733a.5). This idea of perfection was tied in with Aristotle's idea of the "elements," earth, air, fire, and water, and he believed that the "hotter" beings were more perfect than others. Thus, warm blooded animals were more perfect than cold blooded, but also men were "hotter" than women and were the "natural rulers" because they were the most perfect of all animals (Lloyd, 1968, p. 252). However, not all men were equal, and slaves were clearly less perfect than their owners.

Since long before the time of Aristotle, the civilizations of Mesopotamia, Egypt, and Greece had developed into stratified societies ruled by powerful hierarchies and in which all manual work was carried out by slaves. It is, therefore, only to be expected that the Greek philosophers would view the natural world as a gradation from the lowest to the highest, or as a Scale of perfection, which was to become known as the Scale of Nature or the Great Chain of Being.

### *The Principle of Plenitude*

The legacy of Plato to European thinking about the natural world has been expressed as the Principle of Plenitude

(Lovejoy, 1936; Rolfe, 1985). This was the belief that all possible kinds of things exist in the world already and nothing more can be created. Aristotle's legacy was more complicated but has been summarized by Rolfe as the concept of continuity and gradation between adjacent kinds of being when hierarchically arranged (1985, p. 300). Together, the Principle of Plenitude and the Great Chain of Being led to the belief, from medieval times, that a continuous chain extended from the inanimate world of non-living matter, such as earth and stones, through the animate world of plants, zoophytes, and the lowest forms of animal life, upwards to the quadrupeds and eventually through Man to the realms of angels and finally to the Christian God. This belief also entailed the view that just as nothing new could be created, neither could anything be exterminated, since this would counteract the will of God (Rolfe, 1985, p. 10).

Before the eighteenth century, writers about animals such as the Swiss naturalist, Conrad Gesner (1516–1565), and Edward Topsell, who published his *Historie of Foure-Footed Beasts* in 1607, viewed the world from an essentially human point of view. They had three categories of animals: edible and inedible; wild and tame; useful and useless (Thomas, 1983, p. 20). This belief in Man's supremacy over everything else in the world was to continue despite the very great increase in the writings about Nature by philosophers and naturalists in the seventeenth and eighteenth centuries. There was also a great increase in the efforts to classify plants and animals, notably by the botanist, John Ray (1627–1705)

### *The Five Predicables*

In the European-speaking world, until well into the eighteenth century, the method of classification of all organisms was based on the Five Predicables. This was a hierarchical system that had been adapted from Aristotle's

classification of logic, as written in his work known as the *Topics*. The five predicables are genus, species, differentia, property, and accident. They have been clearly defined by Simpson:

Genus = that part of the essence shared by distinct species, that is it was a group of species with some attributes in common. Species = a group of things similar in essence. Differentia = that part of the essence peculiar to a given species and therefore distinguishing it from other species. Property = an attribute shared by all members of a species but not part of its essence and not necessary to differentiate it. Accident = an attribute present in some members of a species but not shared by all and not part of its essence (1961, p. 24).

Under this system humans can be classified thus: genus = animal, species = human being, differentia = rational, property = capacity for laughter, accident = say black or white skin.

Incidentally, it is interesting to look at the definitions of a species and a genus given in Dr Johnson's dictionary (1755) as this provides the scholastic view of classification at the time that the fundamental changes in biological classification were proposed by Linnaeus, who would have been familiar with these definitions:

*Species*: Class of nature; single order of beings. A sort; a subdivision of beings. A special idea is called by the Schools a Species; it is one common nature that agrees to several singular individual beings; so horse is a special idea or species, as it agrees to Bucephalus, Trot, and Snowball [the first being Alexander the Great's horse, the last two being famous horses of Johnson's time].

*Genus*: A class of being comprehending under it many species; as quadruped is a genus comprehending under it almost all terrestrial beasts. A general idea is called by the Schools genus and it is one common Nature; so animal is a genus because it agrees to horse, lion, whale, and butterfly.

*Linnaeus and Binomial Classification*

I come now to the work of Linnaeus, who, it can be argued, has had as profound an influence on biological thinking as Aristotle had 2000 years before him and Charles Darwin had 100 years after him.

Carl Linnaeus was a Swedish botanist and explorer who lived from 1707–1778. He was an organizer who classified not only the plant and animal kingdoms but also the minerals and the kinds of diseases known in his day. Since the time of Aristotle animals and plants had been named in Latin by using the genus and the differentia from the five predicables of classification. The two together made up the definition which could be used as the name. However, with the classification and naming of more and more species over time, the differentia often became very long. The great innovation of Linnaeus was in creating the binomial or binary system by taking the old name for the genus and adding a single name from the many that had been used in the differentia, as the species, for example, *Felis catus* for the domestic cat.

The first edition of Linnaeus's classification of the animal kingdom, the *Systema Naturae* was published in 1735 and his definitive tenth edition in 1758, 101 years before Darwin's *Origin of Species* (1859). The book was written in Latin and the long introduction has been seldom translated, although it is full of fascinating comments on eighteenth-century attitudes to animals, as well as the first use of the term Mammalia,<sup>3</sup> which initiated the separation of the mammals from the rest of the Quadrupeds. The translation of Robert Kerr (1792) has the title *The Animal Kingdom or Zoological System of the Celebrated Sir Charles Linnaeus*. After the short introduction there is a chapter translated as "The Empire of Nature," which begins with quotations from Aristotle on the Causes and from the Roman writers Seneca (4 BC-AD 65) and Pliny the Elder (AD 23–79). Linnaeus followed Aristotle in believing that the three kingdoms of nature (minerals, vegetables, and animals) met

together in the Order of Zoophytes, and also in the belief that everything in the world was created for Man. Linnaeus clearly believed that every person since the beginning of time had, like himself, a passion for classifying, for he wrote: "Hence one great employment of man, at the beginning of the world, must have been to examine created objects, and to impose on all the species names according to their kinds."

Before Linnaeus, most naturalists started their classifications by dividing all the known organisms into large groups and then subdividing these into progressively smaller groups. Unlike his predecessors, Linnaeus saw that the unit of classification had to be the species, that is, a population or group of organisms that are systematically related to each other. He then organized these species into larger groups or genera, arranged analogous genera to form Families, and related Families to form Orders and Classes. Thus, he produced a strict hierarchical classification which ended at its summit with the Kingdom. Linnaeus summarized his ideas as follows:

The science of Nature is founded on an exact knowledge of the nomenclature of natural bodies, and of their systematic arrangement; this enables a philosopher to travel alone, and in safety, through the devious meanderings of Nature's labyrinth. In this methodical arrangement the Classes and Orders are the creatures of human invention, while the division of these into Genera and Species is the work of Nature. All true knowledge refers finally to the species of things, while at the same time, what regards the generic divisions is substantial in its Nature. . . . God, beginning from the most simple terrestrial elements, advances through Minerals, Vegetables, and Animals, and finishes with Man. Man on the contrary, reversing this order, begins with himself, and proceeds downwards to the materials of the earth. The framer of a systematic arrangement begins his study by the investigation of particulars, from which he ascends to more universal proportions; while the teacher of this method, taking a contrary course, first explains the general propositions, and then gradually descends to particulars (Kerr, 1792, pp. 22–3).

*Eighteenth-Century Naturalists*

Linnaeus and his followers were, however, only one section of a large number of naturalists and philosophers who were attempting to understand the living world in the eighteenth century, and who were writing essays, tracts, and books about their ideas. One of the most influential of these was the French naturalist Georges-Louis Leclerc Buffon (1707–1788) was born in the same year as Linnaeus and, if anything, he worked even more prodigiously than his Swedish counterpart. Buffon's aim was to describe the whole of natural history in 50 volumes, of which, at the time of his death, he had completed 36. It was not this great production of work that was to have a lasting influence, but his construction of geological stages and his radical acceptance that species could become extinct. Until the mid-eighteenth century, firm believers in the Principle of Plenitude and the Great Chain of Being, such as Ray, had forcefully argued against the possibility that species could become extinct and they produced all sorts of explanations for the existence of fossils. This was because inherent in the Principle of Plenitude was the idea that all the possible kinds of things exist, and extinction would not be possible because it would counteract the will of the all-powerful Creator.

Buffon was an aristocrat, and, as might well happen today, his total absorption with the animal world was considered to be very eccentric by his peers. Madame du Deffand, for example, is recorded as having remarked: "He concerns himself with animals; he must be something of one himself to be so devoted to such an occupation" (*Times Literary Supplement*, 27 January 1995, p. 29).

*The Missing Link*

There was a paradox in the thinking of many of these naturalists because although they believed in the separate

creation of every species, their overall anthropocentric view led them to search for links in the chain between the newly discovered great apes and humans. For example, the Swiss naturalist Charles Bonnet (1720–1793) wrote a detailed account of the *orang-outang* and did not hesitate to claim its close relationship with Man, albeit with the “lowest races” of the human species.

*Nineteenth-Century Biology and the Origin of Species*

By the nineteenth century, naturalists were vigorously looking for an alternative theory to that of special creation and the rigid ranking of every known species of plant and animal. They had finally realized that Aristotle’s legacy and the traditional ways of defining and categorizing living organisms in a Scale of Nature no longer fitted their modern world with its ever-increasing discoveries of fossil and living forms. Although the Principle of Plenitude and the Scale of Nature had provided for centuries a framework for the definition of living organisms by careful analysis, no account was taken of individual variation. Within this framework, the so-called doctrine of internal finality also decreed that every organism was complete in itself, and every organ or part of the body had its own peculiar function. This meant that there could be no relationship between different species, one result of this concept being that the existence of rudimentary or vestigial organs was never recognized.

It was to his great advantage that Charles Darwin was not a classical scholar and had not been influenced by these age-old precepts, although he was much impressed by the works of Aristotle which he read in translation, long after the publication of the *Origin of Species*. The following excerpt from a letter that Darwin wrote to William Ogle in 1882 after he had read *The Parts of Animals*, which Ogle had translated, confirms this:

I have rarely read anything which has interested me more, though I have not read as yet more than a quarter of the book proper. From quotations which I had seen, I had a high notion of Aristotle's merits, but I had not the most remote notion what a wonderful man he was. Linnaeus and Cuvier have been my two gods, though in very different ways, but they were mere schoolboys to old Aristotle (F. Darwin, 1887, III:251).

Like Darwin, the few people who understood his theory of the origin of species in the mid-nineteenth century were empiricists who did not believe in the fixed essence of each form. One of the most influential of these free-thinking people was Thomas Henry Huxley, although even he had difficulty at first in making the jump from belief in the immutability of species to the concept of evolution. He wrote in a letter to Darwin after first reading the *Origin of Species* and finally understanding the full extent of its implications, "How stupid not to have thought of that."

The following is a quick summary of the discovery that has made Darwin the god of many biologists today: innumerable natural variations occur in the progeny of nearly all living organisms. In the natural world, the struggle for existence ensures that only the fittest survive and reproduce, so that variations are discarded or retained by natural selection. Over time, these and other forces, such as reproductive isolation and sexual selection, lead to the origin of new species.

The great dilemma that faced every thinking person of the time was that if they accepted the theory of evolution, they had to face the fact that human beings were not a special creation made in the image of God but the result of a slow process of transmutation from so-called lower forms of life. That is, the Scale of Nature was not a ladder in which each step was the result of a discrete and separate creation but was indeed more like a Great Chain of Being in which the links were connected to each other.

It is hard for us now to imagine the bitterness of the battle that raged over the *Origin of Species*. It was exemplified in the

famous Oxford meeting of 1860, when the Bishop of Oxford assured his audience that there was nothing in the idea of evolution. He pronounced that, “rock-pigeons were what rock-pigeons had always been,” and then turning to his antagonist, T. H. Huxley, with a smiling insolence, he begged to know was it through his grandfather or his grandmother that he claimed his descent from a monkey? To which Huxley made the famous retort the essence of which was that he was not ashamed to have a monkey for his ancestor, but he would be ashamed to be connected with a man who used great gifts to obscure the truth (Huxley, 1903, I: 267).

Education in nineteenth-century England was still strongly based on the classics and the teaching of science in schools was in its infancy. Among those who abhorred the turning of the tide towards mechanical power and scientific progress was William Morris (1834–96) who wrote prophetically in 1894:

Apart from the desire to produce beautiful things, the leading passion of my life has been and is hatred of modern civilization . . . What shall I say concerning its mastery of and its waste of mechanical power, its commonwealth so poor, its enemies of the commonwealth so rich, its stupendous organisation . . . its eyeless vulgarity . . . the place of Homer [is] to be taken by Huxley (MacCarthy, 1994, p. 261).

### *The Legacy of Aristotle and Modern Attitudes to Animals*

Despite all the changes that have taken place in biological science over the last 100 years, most people still believe that the world is ordered according to a hierarchical Scale of Nature with unicellular organisms at its base and Man at the top. This is not surprising since, from the moment of birth, people in the Western world are ruled by hierarchies, first in the family, then in education, and on through adulthood. It can be argued whether social ranking is the result of the natural evolution of complex societies or whether it is a legacy from the slave states

of the ancient world. But, whatever its origins, this hierarchical view of life has affected the way humans have lived in the European-speaking world since before the time of Aristotle. Today, social ranking still affects everything we do and it dominates our attitudes to other animals which are classified and named in the hierarchical system created by Linnaeus in his "Empire of Nature." It is very unlikely that taxonomists will ever escape from classifying the natural world in hierarchies, for as Keith Thomas has written:

. . . all observation of the natural world involves the use of mental categories with which we, the observers, classify and order the otherwise incomprehensible mass of phenomena around us; and it is notorious that, once these categories have been learned, it is very difficult for us to see the world in any other way (1983, p. 52).

Aristotle believed that every living organism was made for the sake of Man, and little has changed in this attitude over the last 2000 years. In one way or another, in most parts of the world, people believe that animals are there for the benefit of the human species. Individual domestic animals are treated as substitute children, being loved, cared for, talked to, and chastised when they "do wrong," while livestock animals are farmed for food and other resources. Wild animals are still killed for sport, and until very recently it was accepted that the natural world also existed for the benefit of humans, as somewhat unbelievably summed up in 1969 by the International Union for the Conservation of Nature (IUCN), which defined conservation as the rational use of the environment to achieve the highest quality of living for mankind (Thomas, 1983, p. 302). Fortunately, over the last 30 years this view has been moderated, although there can be few wild places that are subject to no human intervention. By 1991, IUCN had changed its mission statement to include the premise that: ". . . Nature must be cared for as a life-renewing system to which we belong, and not just as a means of satisfying human needs" (Munro and Holdgate, 1991).

The attitudes of people to animals throughout the Western world is still a mass of contradictions. Ethologists tend to believe that “only man is vile” and concern themselves with the problem of whether animals have consciousness and whether animal societies can have a culture. Meanwhile, newspaper reports of ill-doings by and to humans ring with cries of denigration such as: “He was as empty of morals as any animal,” or “He behaved like an animal,” or “We were treated like animals.” This is a direct result of the inherent belief in the Scale of Nature with its ranking of animals as far below humans in moral status.

Another great paradox can be seen in the different attitudes people, and this often includes biologists, have to the wild and to the domestic. This attitude is not inherited from Aristotle, who made no distinction in his descriptions between the wild and the tame. The ethologist will gain status by studying the behaviour of lions but none at all from observations on the family cat. The pitiful and often painful deaths of millions of domestic animals make an impact on only a tiny minority of people, but furious arguments rage about the rights and wrongs of hunting.

In the ancient world, people lived very close to their livestock, often sharing the same house with them, and however cruel they may have been at times, they treated their animals as individuals who could suffer like themselves. But it is inevitable that once the numbers of animals owned become large, say in the thousands, their individual identities are lost. This has been the inevitable result of industrial farming in the modern world, where the vast numbers of domestic animals have become like animate vegetables, all bred to look alike and reared in confined spaces for maximum yield at the lowest cost. Yet each of these animals does remain an individual with feelings and with a temperament of its own.

The question of whether animals have rights has been discussed by philosophers for hundreds of years, but the arguments for and against have remained mainly of academic

interest. The time has now come, however, when we must accept that the animals for whom we are responsible do have rights. This is an ethical issue of our time, and we must take it seriously, just as the question of the rights of human slaves had to be faced 150 years ago. Slavery throughout the world was not officially abolished until 1833, and even today there are huge numbers of people who are living as virtual slaves. It has therefore taken more than 2000 years to accept that, at least in theory, every human being has equal rights. We have to hope and expect that it will not be another 2000 years before we acknowledge that every animal too has rights. Maybe we can be optimistic about this for, at least in Britain, there are such widespread, ongoing protests against the cruelty of exporting thousands of live calves for the veal trade and live sheep to be slaughtered on the Continent of Europe that the time may be hastened when animals are indeed recognized as sentient beings.

Following these protests from a wide spectrum of people in Britain, the Labour Party published the pledge that they would curb the export of live animals for slaughter, and in the long term they would want to have farm animals redefined under the Treaty of Rome as “sentient beings” rather than as “agricultural produce.” It is indeed a great step forward when a government party, even if in opposition and covering itself with “in the long term,” appears to bear in mind what the radical philosopher Jeremy Bentham (1748–1832) wrote nearly 200 years ago: “The important question is not *can* they reason, nor *can* they talk, but *can* they suffer” (Harrison, 1948, cited in Thomas, 1983, p. 365, n14)?

#### Notes

<sup>1</sup> It is noteworthy that white doves (pigeons) in a dovecote in an English garden today still follow this night and day schedule for incubation, with the female sitting during the night and the male during the day.

<sup>2</sup> Note that neither the elephant nor the peacock were native to Greece in classical times, but they must have been brought from India from time to time.

<sup>3</sup> Kerr (1792, p. 33) has the following footnote after Linnaeus's "Class I. Mammalia":

The term Mammalia, here used, signifies such animals as feed their young by milk derived from proper glands situated on the mother, and furnished with teats or paps. There is no single English word by which this can be translated; Quadrupeds would exclude the Cetaceous order, which, from giving milk, are arranged by Linnaeus in this class.

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