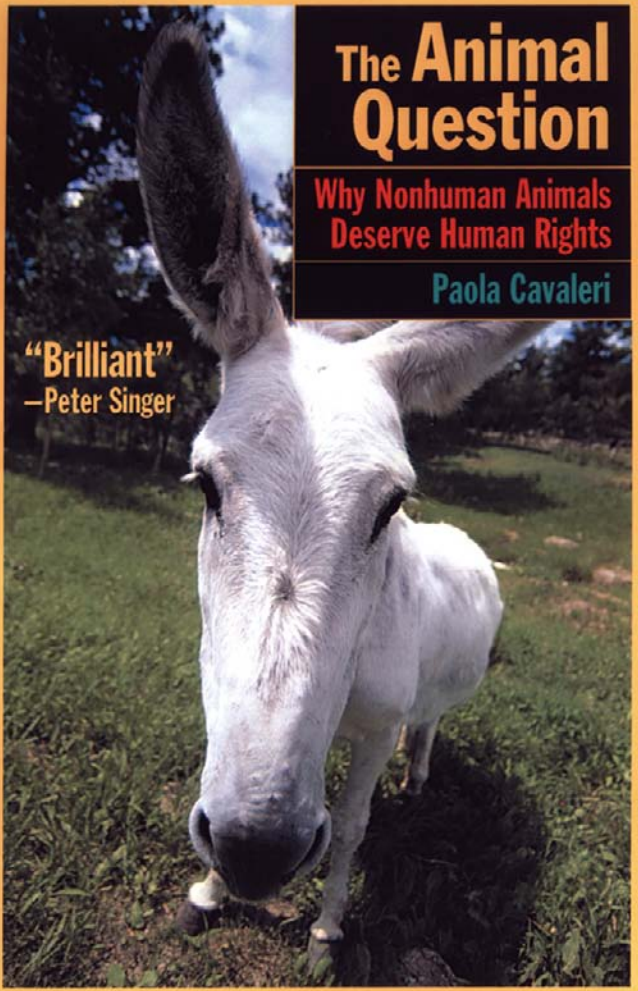
The Animal Question

Why Nonhuman Animals Deserve Human Rights

Paola Cavaleri

"Brilliant"
—Peter Singer



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Preface

In recent years, nonhuman animals have been at the center of an intense philosophical debate. Many authors have criticized traditional morality, maintaining that the way in which we treat members of species other than our own is ethically indefensible. Taking this shared idea as a starting point, some have provided a reformulation of the moral status of nonhumans based on their own specific normative positions.

My line of reasoning will be different. Instead of proceeding from a particular ethical perspective, I will start from premises that are, as far as possible, shared. I will then attempt to explore what they actually imply. What I shall develop will be, in other words, a dialectical argument.

The aim of the first part of the book is to put the animal question in context. The first chapter focuses on recent cultural changes both in the philosophical and in the scientific domain. In the second, the problem of the structure of the moral community will be explored, and an inclusive criterion will be put forward. I will employ the results thus reached as a framework within which to discuss, in the third chapter, the main defenses of the traditional position.

Once these foundations have been laid, I will confront the fundamental issue: from a moral point of view, how much do nonhuman animals count? The fourth chapter is devoted to a critique of the idea that it is possible to draw a line between our species and other species that creates two distinct moral categories. In the fifth, I will examine some of the recent attempts to reconstruct the moral community so as to avoid any arbitrariness and group loyalty. I will suggest that, although a route can be identified, many problems remain unresolved. In the sixth chapter, finally, after showing that we already have at our disposal a theory that provides an answer to some of these questions, I will claim that this theory cannot be confined to human beings without severe inconsistency. In other words, my conclusion will be that among those entitled to that minimum of equality and equity that allows one to live a life worth living, there are many nonhuman beings whom we currently treat as little more than mere things.

Anyone interested in the topic of our ethical relations with nonhuman animals owes a debt to Peter Singer; in my case this debt has grown through years of collaboration and discussion. I am deeply, and especially, grateful to Harlan B. Miller for his unsparing help and his constructive and often witty criticism. I owe special philosophical debts to Steve F. Sapontzis and to James Rachels, whose moral views taught me even more than is already evident from the text. Sue Donaldson and Will Kymlicka earned my gratitude for their encouragement and for their helpful advice. And, most of all, I thank Franco Salanga, without whose unswerving cooperation and support this book would not exist.

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Chapter 1 The Cultural Premises

The appearance of new subjects on the social scene is usually accompanied by a questioning of the status quo. And often the process takes place in a number of different areas simultaneously, eroding, so to speak, the cultural paradigm in a roundabout way, and paving the way for a more direct challenge.

In the case of nonhuman animals, the paradigm is both rooted and pervasive. Rooted because it is supported by more than twenty centuries of philosophical tradition aiming at excluding from the ethical domain members of species other than our own. Pervasive because its implications affect many aspects of our lives. But, above all, the paradigm has a vast range of practical consequences. We currently use nonhuman animals as means to our ends. We kill them for food, we use them in our work and entertainment, we employ them as tools in research of all kinds, and it is rare that we pause to ask ourselves whether our behavior is morally justified. Certainly, in theory, we acknowledge the obligation not to cause unnecessary suffering, but our needs are interpreted in such a broad way as to make this constraint negligible. In short, nonhuman animals are at the bottom of a pyramid, at the apex of which we have placed ourselves.

Hierarchical attitudes of this type, of course, are not new. Aristotle thought that slaves were the tools of their owners, and for a long time humans of Caucasian origin theorized their own superiority to members of other races. As in the case of animals, the justification put forward sometimes referred to psychological characteristics, and sometimes, more directly, to a biological aspect, like race membership. Yet the history of what we call moral progress can for the most part be seen as the history of the substitution of hierarchical visions with presumptions in favor of equality.[1] The animal question is therefore part of an ongoing cultural process.

In recent decades, three fields of thought have contributed most to the revival of this process. The first two are philosophical in character, one concerned with the general problem of human equality, and the other with the morality of certain specific practices, in particular abortion and euthanasia. The third sphere is instead scientific, and it involves, essentially if not exclusively, the disciplines that are today grouped together under the label of cognitive sciences. We will consider each of these spheres in turn.

A Problem for Political Philosophy: How to Establish Human Equality

Midway through the 1960s, Richard Wasserstrom, in a piece commissioned by the American Philosophical Association, described as follows the renewed interest in the question of equality:

> This renaissance has been influenced, I believe, by certain events of recent history—notably the horrors of Nazi Germany and the increasingly obvious injustices of racial discrimination in both the United States and Africa.[2]

These elements, to which one could shortly add the ideological pressure of the rising women's liberation movement, undoubtedly played a role in urging political philosophers to deal with a crucial problem: How might one plausibly establish and defend the idea that all human beings are equal? How should a principle of equality capable of constituting a barrier against all forms of discrimination be formulated?

The idea of human equality had, obviously, already been devised in the past. From the doctrine of natural law, passing through Locke, the main constraints on the treatment of human beings had been

formulated in terms of equal fundamental rights. But such assertions often remained completely abstract. Locke himself, like other theorists of natural rights, openly sanctioned servitude. Many philosophers of the French Enlightenment did likewise: common among them was the thesis that if equality was nature's first "intention," inequality was natural in the secondary sense of being necessary for the order and well-being of society. Even Montesquieu, who did so much to undermine the traditional justifications of slavery, maintained that such a practice, although contrary to natural law, had, at least in some "tropical countries," a function to perform.[3] It is no surprise then that the Declaration of Independence of the United States asserted that all men [*sic*] were created equal at a time when slavery flourished in the southern states. Declarations of principle were never substantially matched by a consistent plan of political implementation.

When contemporary philosophers set to work, however, what they had behind them was not so much a period of fluctuations and inconsistencies but rather the long post-Enlightenment phase of a rejection of equality even at the theoretical level. It was having to start afresh that gave their effort its depth. The most pressing problem they had to confront was that of discrimination based on sex or race. A long tradition tended to attribute factual inferiority to women and blacks—lower intelligence, inferior rationality, a lower degree of autonomy—and to use this as the basis for justification of differential treatment. How might this attitude be opposed?

The simplest rejoinder obviously lay in trying to demonstrate that such "inferiority" does not in fact exist, and, in particular, that there are no differences between the sexes and the races as groups. We will see later on that this is a path that was followed by some authors and that is still deemed plausible. It has, however, a fundamental defect: if moral equality is made dependent on actual empirical equality, if it were to be shown that the members of the various human groups are indeed different, we should have to give up treating them as equals. Would we be prepared to accept racial discrimination if it were demonstrated, by overwhelming evidence, that certain races show on the whole a lower level of, for example, abstract reasoning? Certainly not.

What is one to think of such a reaction? It could be purely unreflective, the fruit of prejudices that should be modified. Or, on the contrary, it could be the sign of a true theoretical dissatisfaction. By the way, it is important to notice that the adoption of the criterion of

empirical equality, with its implicit acceptance of a hierarchy among the faculties, would not merely imply the risk of a reversion to possible forms of racism. Other types of discrimination opposed by egalitarians would also regain plausibility. Why not classify (as far as it is possible) individual human beings directly on the basis of intelligence? Why not divide social roles and opportunities into separate layers, differently accessible according to cognitive skill?

Confronted with these options, philosophers, convinced that the presumption in favor of equality is not the fruit of mistaken prejudices (and they are the majority), opted for a second alternative. In short, their argument can be summarized as follows: Let's admit what cannot be denied, that is, that human beings are individually different in terms of physical characteristics, ranging from beauty to strength, and intellectual characteristics, ranging from intelligence to will and creativity. We might push this even further and not fear the remote but not impossible eventuality of measurable differences between groups. The problem is that none of this is significant. What matters is that human beings are endowed with conscious interests, and that some of these interests are essential if one is to live a decent life. The satisfaction of our interests is important for each one of us, regardless of race, sex, or intelligence. That I am not white has nothing to do with my interest in freedom. Analogously, that I am not an acclaimed scientist but simply a used car dealer, doesn't impinge in any way on my interest in not suffering. The fundamental interests of each one count, and they should be granted equal consideration regardless of the other characteristics that each may possess.[4] The principle of equality can thus be translated into the principle of equal consideration of interests.

What follows from this thesis? First, the idea of equality loses its trivially descriptive character. To say that human beings are equal no longer means professing that they resemble each other in everything—that they have the same type of sensitivity, the same level of intelligence, and so on. To assert human equality means, rather, acknowledging: (a) that human beings share a basic characteristic, the possession of conscious interests, that makes them proper objects of moral consideration; and (b) that these interests—in particular, the fundamental ones—should be granted equal consideration. It is to this partial recasting of equality in prescriptive terms—to the idea that, apart from the possession of the basic characteristic, equality does not refer to how beings are but to how they should be

treated—that we owe the prohibition not only of any kind of group discrimination but also of any reversion to hierarchies based on forms of perfectionism.

With a new consequence, however. The confinement of equality to members of our species has always hinged on high-sounding claims about our rationality and moral capacity. But if the defense of a principle of equality that may include the least among human beings and does not differentiate between the interests of the cultured and the underprivileged, the sane and the mentally ill, or the "civilized" and the "primitive" leads to abandoning such references in order to work on a much more accessible level—where prominence is given to such aspects as the capacity to feel pleasure and pain, to pursue one's goals, and to enjoy one's life—such confinement of equality loses its plausibility. In other words, the new conception pushes against the historical bias in favor of the intellectual that has so long characterized Western philosophy, and it opens the door to the idea that equality cannot go on being solely an internal affair of the species *Homo sapiens*.

As a result of the tradition in which they had been educated and of the fact that their specific problem was that of overcoming the barriers between human beings, the authors working on this question did not fully perceive this turn. They kept maintaining that the sphere of application of the principle they were formulating could plausibly exclude all nonhuman beings. Nevertheless, the very logic of their solutions makes such an exclusion impossible.

Bioethical Dilemmas: Who Is Human?

In their attempt to defend principles that can establish criteria for just conduct, moral philosophers have always examined specific ethical questions: think of Hume's interest in suicide, or Bentham's interest in the problem of punishment. This tradition was suddenly interrupted early in the twentieth century when the positivist school called into question the efficacy of moral reasoning, claiming that the main function of moral terms is not to ascertain truth or falsity but to express emotions. Starting from this idea—and in connection with the linguistic turn that was affecting a number of disciplines—normative ethics was newly contrasted with metaethics, that is, with the second-order reflection focusing on the analysis of moral language.

At the same time she acknowledged the theoretical merits of metaethical discourse, Mary Warnock acutely observed that if one bears in mind that the object of morality is not so much the categories we use to describe reality but rather our impact on the world, then it is no surprise that ethics as a discipline underwent a gradual process of trivialization.[5] It was largely as a reaction to the uncommitted attitude that characterized metaethics that, at the beginning of the 1970s, applied ethics was (re)born. Prompted by the demands for "relevance" that came from different social spheres, many moral philosophers started again to defend the idea that argument does have an important role to play in ethics, and they began to apply to a growing number of specific moral dilemmas the theoretical tools produced by linguistic analysis. It is to this encounter between the legacy of the analytic approach and the rediscovered interest in concrete ethical problems that we owe the questioning of many traditional assumptions.

In this process, an important role was soon assumed by bioethics, as the branch of ethics concerned with the moral problems raised by the medical and biological sciences has come to be called. The rapid and continuous growth of our power over life-and-death circumstances inevitably gives rise to new dilemmas, or makes the old ones more pressing. Some questions have to do with behavior: Is it acceptable to offer one's body for surrogate motherhood? Should we permit the creation of a market in organs for transplants? Is genetic screening permissible? When cases of this kind are involved, it is often a matter of stretching the boundaries of traditional ethics, extending or reviewing judgments referring to similar cases. Other questions raise problems concerning the status of the beings affected: What is the value of the life of a human fetus? Does an individual in an irreversible coma have a right to continued existence? Are embryos a kind of entity on which one can experiment? Questions such as these lead one to put to the test, and to challenge, criteria of moral considerability that were taken for granted in the past.

"Life is an irreducible value. Therefore, the value of a particular life, over and above the value of life itself, may not be taken into account."[6] This sentence embodies the kernel of the view which, until recently, was one of the moral ideas most universally accepted in the biomedical field, one which still plays a role both in the opposition to abortion and in the deep-seated resistance of many to euthanasia.

According to this view, better known as the sanctity-of-life doctrine, all lives have equal, absolute value, irrespective of their quality or their kind. Accordingly, it doesn't make sense to ask the questions I mentioned—the life of the embryo, of the fetus, and of the irreversibly comatose count for exactly the same as any other life.

The phrase "sanctity of life" is ambiguous, however. Of what life are we speaking? Obviously not of life in all its forms, including vegetal ones. Of animal life in general, then? Were it so, we would live in a society of vegetarians. Since this is not the case, it is evident that the phrase refers only to human life. A more accurate phrase would thus be "sanctity-of-human-life" doctrine.[7] The lives that are attributed equal, absolute value are the lives of members of the species *Homo sapiens*. Once translated in terms of medical practice, the principle of the sanctity of life requires that the existence of every single human being be prolonged at (almost) any cost.[8]

What lies at the basis of the equal and absolute value of human lives? At first sight, the use of the term "sanctity" seems to have religious overtones. In fact, the doctrine is primarily rooted in a religious context, in particular in God's equal and supreme interest in every human creature. Those who speak of the sanctity of human life today, however, do not always have in mind religious justifications. One could say that what prevails is a secular version of the doctrine, defended both by lay authors and by religious authors who want to appeal to a heterogeneous public. But the problem is this: once it has been stripped of all theological support, is the sanctity-of-life doctrine still defensible? In the course of recent discussions in bioethics, many philosophers have replied that it is not.

To understand their reasons, consider a concrete case: the story of Tony Bland. In 1989, Tony Bland, a young English football fan, was crushed by a crowd pressing to get into a football match. The interruption of breathing due to the compression of his lungs deprived his brain of oxygen for too long and destroyed his cortex, causing the loss of all cognitive functions. Tony Bland was thus reduced to a persistent vegetative state, according to the expression used by the judge who worked on the case. Convinced that there was no chance of recovery, his parents asked—with the agreement of doctors—that their son be deprived of artificial sustenance. In order to avoid the risk of being charged, the director of the hospital to which Tony Bland was admitted requested the authorization of the Family Division

of the High Court. The judge entrusted with guarding Tony Bland's interests objected, however, maintaining that the parents' proposal would amount to murder.[9]

What is one to say about this position? From a certain perspective, if murder is the killing of a human being, it cannot be denied that the interruption of artificial sustenance in a case such as that of Tony Bland falls under this description. Tony Bland is certainly human, insofar as he is the son of human parents, and thus the carrier of a human genotype. But is this the sense one can appeal to in order to defend the idea of the sanctity of life? The answer seems to be no. Usually, when we say of a being that it is human, we are assuming an endowment of certain special characteristics, such as self-consciousness, rationality, self-control, sense of time, communicative ability, and the ability to relate to others—that is, the attributes that have been defined "indicators of humanhood."[10] This is the evaluative, or philosophical, sense of "human being"—a sense for which many prefer to use the term "person," as contrasted with the biological notion of "member of the species *Homo sapiens*."

Some authors maintain that whatever value human life might have must rest upon human personhood rather than mere species membership. Even though the concept of person is a complex one (and one to which we will have to return), it is important to underline here that the distinction between "human being" and "person" captures an important point. Our life is the sum of all that counts for us—our well-being, our projects, our activities, and our relationships—and all that counts for us is made possible by the possession of certain capacities. Without these capacities, we would have different interests, and without one capacity in particular, consciousness, we would not have any interests. In a key essay on euthanasia, James Rachels clarified this point well.[11] Beings lacking consciousness, he has claimed, while *biologically* alive—that is, endowed with vital processes and metabolic functioning—lack that which really counts morally, namely, a *biographical* life. They do not have character, history, relationships, or well-being: nothing that happens to them can affect them positively or negatively. If, therefore, it is to the philosophical sense of the notion of human being that the defenders of the sanctity-of-life doctrine refer, then the claim that killing an individual in a persistent vegetative state means killing a human being is patently false.

An echo of this philosophical argument can be found in the effective conclusion of the Bland case. The highest court in the British

judicial system, the House of Lords, confirmed the line held by the tribunals that preceded it and granted authorization for the withdrawal of artificial feeding, stating, among other things, that "it is not in the interest of an insentient patient to continue the life-supporting care and treatment."[12] It emerges clearly from this judgment that since the biographical life of Tony Bland came to an end on the day his brain did, the preservation of his merely biological life no longer had any meaning. The same can be said of any irreversibly comatose: none of these human beings is endowed with—picking at random from the list of indicators of humanhood—self-control, a sense of time, or the capacity for interaction with others. To return to the thesis mentioned above, none of these human beings is a person.

The distinction between "human being" and "person" also plays an important role in the debate on the morality of abortion. Brought to the forefront again, not only by the feminist movement but also by the refinement of techniques of prenatal diagnosis of congenital diseases, the problem of abortion is for the most part, although not completely,[13] the problem of the value of the life of the fetus. According to some advocates of the sanctity-of-life doctrine, abortion is a form of murder because the fetus is a person. But if it is true that the term "person" refers to the philosophical sense of "human being" and thus to the possession of characteristics such as self-consciousness or rationality, it is clear that this claim is not plausible. Up to a certain point in gestation, the fetus has no consciousness at all. Subsequently, with the development of the central nervous system, a form of consciousness appears, which, however, even at the moment of birth, is a long way from including the features considered essential to the attribution of personhood. Like the comatose, then, the fetus lacks the cluster of characteristics that lies at the basis of the philosophical sense of "human being." True, unlike the comatose, the fetus has the potential to become a person; but the argument from potentiality, even supposing that it is sound (and this is quite controversial) doesn't change the essential aspect, namely, the possibility of an actual disjunction between being a member of the species *Homo sapiens* and possessing the characteristics considered typically human.

Deeply engrained moral doctrines do not lose their hold overnight. Faced with the impossibility of founding the absolute value of the life of all human beings, and human beings alone, on morally significant

characteristics that some of them in fact do not possess, some philosophers chose to defend the attribution of a particular moral value to the merely biological sense of human being. Whether this move is possible is something we will discuss in detail in one of the following chapters. For now, it suffices to point out that it was just the overlapping of the evaluative and the biological sense of human being that made it possible to attribute a particular moral weight to the possession of a genotype characteristic of *Homo sapiens,* thanks to the unjustified extension to all members of the species—including those lacking self-consciousness, rationality, and the like—of the special value connected to the philosophical sense of the notion. The elimination of the ambiguity present in the concept of human being has now precluded such a move, suggesting that it is possible to meet the descriptive criterion for being human without meeting the evaluative criterion, and vice versa. In other words, the bioethical discussion of borderline cases like the fetus and the irreversibly comatose opened the way to the eventuality that mere membership in our species may not necessarily entitle one to the protection guaranteed by the sanctity-of-life doctrine; and that, inversely, the possession of the favored characteristics may render a member of a species other than *Homo sapiens* a plausible candidate for such protection.

After Behaviorism, or How Animal Minds Started to Exist Again

The debate examined at the beginning of this chapter is evidence of the philosophical tendency that characterizes contemporary thought on equality. Nevertheless, as I have already mentioned, it is possible to opt for a different alternative, that is, for the attempt to provide the idea of equality with a purely factual basis. In spite of the risks that the possible discovery of actual empirical inequalities involves, this was one of the routes taken when the theoretical work accompanying the United Nations Declarations on Human Rights was undertaken. If one analyzes the composition of the committees that drafted the two "Statements on Race" of 1950 and 1951, one discovers that all the authors had a scientific background. "With respect to most, if not all, measurable characters," the final document summarizes, "the differences among individuals belonging to the same race are greater

than the differences that occur between the observed averages for two or more races."[14]

The recourse to science when discussing normative questions is naturally problematic, insofar as it raises the controversial question of the relation between *is* and *ought*. Nonetheless, there is a weak and relatively uncontroversial sense in which matters of fact can influence values: that according to which new facts, or changes in the way of presenting old ones, can undermine rooted beliefs, allowing one to look at problems in a different way. In a sense, this is what happened with the work of the United Nations experts. After decades of Social Darwinism and theses on the inferiority of some peoples, the assertion that our species is not constituted of different stages of a teleological development but rather is simply composed of population groups that differ from each other according to the frequency of one or more genes arrived like a breath of fresh air.

Something analogous happened in the case of nonhuman animals. It is likely that the deep change in the scientific approach to the animal mind that began in the 1970s has yet to bear all its fruit. However, both epistemologically and from the point of view of the themes of research, it is already like being in a different world. It is worth briefly reconsidering, therefore, the steps in an intellectual shift that—by providing a radically new representation of nonhumans—paved the way for the questioning of their position in the moral community.

Although nearly a century had passed since Darwin advanced his ideas about the continuity between humans and nonhumans, at the end of the 1950s the prevailing vision was still dichotomous. The research scene, in particular in psychology, was dominated by behaviorism. Born in connection with the tenets of logical positivism, from which it derived the aspiration to establish an experimental and quantitative methodology, behaviorism opposed the Cartesian concept of the mind. Its target was the so-called "ghost in the machine." According to the intentions of its founder, J. B. Watson, behaviorism was to take psychology back to the realm of the hard sciences, replacing consciousness with observable behavior, and excluding the use of all terms that couldn't be defined on the basis of detectable relations between stimuli and responses.

In theory, behaviorism maintained that mentalistic explanations were as inappropriate for humans as for nonhumans, and it used the latter as a model for the former. In practice, though, its effects made

themselves felt above all in the approach to animals, who, unlike humans, had no protection from powerful opposing theories. Almost unnoticed, the idea of the undemonstrability of the existence of the animal mind transmuted into the assertion of its nonexistence.

It is not difficult to imagine what this meant, particularly in laboratories. What counts in suffering is its phenomenal aspect—the way in which the subject experiences it. But this problem doesn't exist if one speaks of behavioral dispositions. If it is possible to describe an organism in behavioral terms alone, what is omitted is just the mode of description that is required for ethical concern—the one linked to the experiencing subject.[15] In this light, the suspicion arises that part of the attraction of behaviorism might lie in the moral advantages that the deproblematization of the treatment of animals allowed. In any case, the paradoxical result was that the concrete implications for nonhumans of an approach born out of anti-Cartesianism ended up by coinciding with those of the French philosopher's theory. In both cases, animals came to be seen, and treated, as simple automata.

However, the dichotomous approach had other roots too. "Morgan's appeal to simplicity and rejection of anthropomorphism would seem, from a modern perspective, to have made the development of a scientific behaviorism inevitable."[16] This excerpt taken from an everyday manual of psychology from thirty years ago shows, in its concision, the strict links existing between behaviorism and two norms that have for a long time contributed to maintaining the distinction between the human and nonhuman mind. The first is Morgan's Canon, which dictates that no animal behavior may be interpreted at a higher level when it can be interpreted at a lower one. The second is the interdiction of "anthropomorphism," which revolves around the idea that any interpretation of animal behavior that makes reference to human behavior should be censured from a scientific point of view, insofar as it tends to attribute to nonhumans more than their due.

Today, Morgan's Canon has to a large extent lost its previous role. In the hands of behaviorist scientists, it used to be a criterion of parsimony, similar to the famous Occam's razor, which prohibits the unnecessary multiplication of entities; and, according to the dominant interpretation, parsimony was violated by any attribution of mental activity to nonhuman animals. This is not, however, the only possible reading. Just as a criterion of parsimony, in fact, the canon can lead in a direction contrary to that desired by the behaviorists

who, obsessed by the rejection of any mentalistic explanation, often needed to have recourse to theories with lesser explanatory power. In other words, from many sides it has been underlined that a criterion of parsimony can favor a simple interpretation at a higher level rather than a complicated explanation at a lower level. Imagine that an animal exhibits a highly versatile behavior, capable of adapting itself to varied and unexpected circumstances. On the basis of the behaviorist interpretation of the canon, we would find here a behavioral repertoire consisting of an extremely complex series of subprocedures started by specific stimuli. However, it is plausible to maintain that, in such a case, the appeal to a certain degree of rationality, capable of setting out a strategy and of modifying it with respect to a given number of changes, represents a definitely simpler and more elegant solution.

Not even the concept of "anthropomorphism" remained immune to criticism. First, the charge of anthropomorphism appears indeed to be question-begging. If, in fact, the problem in question is to verify whether humans and nonhumans share mental properties, one cannot assume a priori that it is unreasonable and unscientific to attribute human mental properties to animals. Furthermore, why lay such a heavy stress on possible disanalogies? We are human, but we are also primates and mammals. From this perspective, some authors have suggested that the incorrect approach is not anthropomorphism but rather that form of anthropocentrism that, afraid of any parallel between us and the other animals, arbitrarily removes our species from the evolutionary mainstream of life.[17] As for the methodological component of the tendency to "anthropomorphize"—which concerns the possibility of drawing on human phenomenology to explain the attitudes and experiences of members of other species—it may be said to have been reappraised and to have recently come to be seen as a useful scientific tool.[18]

Similar shifts in perspective, once inconceivable, have been made possible by the decline of the behaviorist approach. The decline began to be apparent in the 1960s, and a decade later behaviorism had died out in most of the intellectual world. To what was the change due? Although a number of different factors were relevant, without doubt an important role was played by the gradual affirmation of the idea that mechanistic and mentalistic explanations are not incompatible. More specifically, the thesis that emerged was that as it is often appropriate to explain the working of a computer in terms of its program,

so it is possible to explain human behavior through reference to mental states. But the compatibility of mentalism and mechanism can be defended at a much more abstract level.

An argument to this effect has been advanced by James Rachels. Suppose that a child is severely punished by her parents every time she tells a lie. As a consequence of this, the child develops a sort of repugnance for lying. Once grown up, the woman never lies, even in situations in which to do so would not be serious, or would even be useful. In such a case, it seems altogether plausible to maintain that her behavior is as much the result of conditioning as the result of her desires. Indeed, it could be said that not only is the mechanistic element compatible with the mentalistic element but that it actually explains it: the woman chooses not to lie precisely because she has been conditioned not to do so. Obviously, this doesn't exclude the possibility of avoiding mentalistic explanations through recourse to specific, general philosophical views about their eliminability. However, to maintain, for external reasons, that scientific psychology has to give up mentalistic terms is something very different from asserting that mentalistic and mechanistic explanations cannot coexist due to their very nature. And while the former assertion may or may not be correct, the latter is definitely incorrect.[19]

In the light of such a general argument, one could ask why, historically, it was just the idea of comparing mentalistic language to the "states" of a computer program that opened a breach in the behaviorist paradigm. And the explanation is simple: because such a parallel can introduce the mind without necessarily introducing consciousness. The computer elaborates information in a complex manner without the intervention of any form of consciousness. From this viewpoint, the birth of the new discipline of cognitive psychology does not mark in itself such a radical break with the past.

Not surprisingly, all this involves the reappearance of the phenomenon of divergent application we have already met with in the case of behaviorism. When what is in question is the human mind, the persistence of mistrust about notions suggesting forms of consciousness is not of much consequence, because of the absolute prevalence of theories that do not dispute in any way the fact that we are conscious. When it comes to nonhumans, on the other hand, such a caution might well turn the attribution of mental states into a Pyrrhic victory. Certainly, if one cannot deny that the social lives of many animals are complex, as an ever growing number of researchers suggest,

and if there are no good theoretical reasons to avoid speaking of mental states, the cognitive approach cannot but be extended to the members of other species. And, albeit gradually, this is what happened. But of what consequence might the presence of an unconscious mind be? As regards treatment, moral concern is as out of place for a computer as for an automaton.

Other factors will have to intervene for an effective change to take place. Among them, a prominent role is no doubt to be granted to the publication, in 1974, of "What Is It Like to Be a Bat?" In this now celebrated article, Thomas Nagel not only takes it as a given that many nonhuman animals have experiences, but he also makes use of this starting point to develop his refutation of two cornerstones of behaviorism: the idea that it is possible to eliminate the subjective element from the analysis of the mind, and the idea that the difficulty of understanding the experiences of other minds invalidates the claim that they have experiences.[20] In the course of the debate that followed the publication of this article, many authors engaged in the attempt to formulate a theory of mind that would firmly root psychic phenomena in the natural world. While some remained skeptical with regard to animal consciousness, others confirmed and developed the nondichotomous approach defended by Nagel. Among these was John Searle, who, after claiming that consciousness is a biological process occurring in the brain and is as much a part of the biological natural history of animals as are mitosis or growth, thus summarizes the new perspective:

> Descartes together with the British empiricists and right up through the Positivists and the Behaviorists of the twentieth century have given us the impression that the question: "How do you know?" asks the fundamental question. Against this tradition, I want to say that epistemology is of relatively little interest in philosophy and daily life. . . . Another way to put this is to say that it doesn't matter really
> *how* I know whether my dog is conscious, or even *whether* or not I do "know" that he is conscious. The fact is, he is conscious and epistemology in this area has to *start* with this fact.[21]

It happens sometimes that the developments in philosophical reflection have difficulty in spreading beyond the confines of the academic discipline. In spite of the transformations in progress, students of animal behavior, even of a cognitivist bent, for a long time stuck to the idea that the employment of terms like belief, desire, or consciousness could represent a return to the feared Cartesian conception of

the mind, and they continued, accordingly, to mistrust it. However, there were exceptions.

Having been for so long—and with so little justification—kept in the background, the Darwinist idea of a mental continuity between humans and nonhumans reemerged, thanks to Donald Griffin. From the 1970s on, the authoritative Harvard-based zoologist published a series of volumes that, as well as including an impressive mass of documentary material, theoretically defended the possibility of attributing conscious thought to animals. Griffin championed, among other things, the birth of a new discipline, cognitive ethology, that would always "keep an open mind" about such a possibility.[22]

It was a good prophecy. The tradition, in the past primarily European, of fieldwork came to be gradually taken up again and revitalized in the Anglo-American arena. With a difference, however. For if the founding fathers of the discipline, such as Tinbergen and Lorenz, while not denying the existence of subjective states in animals, shared with methodological behaviorism the idea that subjectivity cannot be the subject of scientific study, many contemporary ethologists do not hesitate to introduce into their studies reference to animal consciousness. This indicates not only a return to the logical implications of evolutionary theory but also a partial recovery of so-called "folk psychology." After all, it is difficult for anyone who normally has anything to do with an animal to believe that they really have in front of them a being lacking consciousness. It was only to be expected that, sooner or later, there would be a revival of common sense. Griffin is one of the intellectual figures to whom credit for this revival should be ascribed.

Another is without doubt Jane Goodall. At the beginning of the 1960s, during what was still the behaviorist era, Goodall spent a long period alone in the tropical forest of Gombe tracking and studying chimpanzees. Perhaps because she was foreign to the official scientific world, the young researcher had no qualms about using such terms as "childhood," "adolescence," "motivation," and "mood" in the reports of her field observations, and even went so far as to attribute individual personalities to the different chimpanzees. At first, this obviously created a scandal and stirred up the well-known charges of anthropomorphism and violation of scientific objectivity. Gradually, however, the publication of a number of rigorously academic works and the impressive success met with among the public at

large prevailed over this opposition, turning Jane Goodall into one of the most important figures in contemporary ethology.

If one were asked to name Goodall's main contribution, the first response would probably make reference to her scientific achievements. Her investigations offered the first detailed reconstruction of the individual and social life of chimpanzees, while at the same time helping to discredit many commonplaces about human uniqueness, starting with the idea that we are the only ones to shape and use tools.[23] There is, however, another aspect that is as important, one that refers not to the results but to the method of research. That primatology has become for animals something similar to what anthropology is for human beings—a theoretical bridge allowing those who are different to get closer—is largely due to the method used by Goodall, which is patently nearer to the subject-subject approach of the social sciences than to the subject-object approach of the natural sciences.[24] Inserting itself within a process already in motion, this change of approach made it easier for an entire generation of ethologists to attribute to nonhuman animals a growing number of complex behavioral traits,[25] ranging from intentional teaching to planning of future activity to sophisticated forms of social cooperation.

Of course, all this did not happen without opposition and criticism. Nothing equaled, however, the reaction elicited by a later, important discovery that came not from the ethological sphere but from the more cautious and conservative discipline of cognitive psychology. At least from Descartes on, linguistic ability has been considered by philosophers the human prerogative par excellence, because of the sophisticated set of cognitive patterns it presupposes. For his part, Darwin believed instead that human language was merely the natural extension of a primitive system of signals similar to those used by other animals.[26] But how can one test such an idea?

Faced with this question, some American researchers worked on the hypothesis that our closest evolutionary relatives might be endowed with a prelinguistic capacity. Verbal language is a form of symbolic communication requiring utterance of particular sounds. As the vocal system of nonhabitual bipeds is, for physical reasons, not capable of producing consonants, the essential problem lay in overcoming this limitation. After a series of failed attempts, this happened through recourse to a gesture-based language. Thanks to the American Sign Language, authors such as Allen and Beatrice Gardner, Roger Fouts,

Francine Patterson, and others claimed that they had finally managed to teach a human language to nonhuman beings—chimpanzees and gorillas.

Immediately, various linguists, Noam Chomsky among them, cast doubts on this claim, lining up in defense of neo-Cartesian theses. But psychologists in the discipline that is now called interspecific communication responded to the criticisms, proving their results with new research and increasingly rigorous tests. Recent data do not allow for any doubts about the fact that nonhuman great apes can develop a vocabulary of hundreds of signs with independent symbol status, and can combine them in a way that meets the fundamental criteria for being recognized as grammatical. On a less abstract level, furthermore, the reports show how individuals growing up in a family environment, just like children, currently employ language for manipulative purposes, start dialogues, and express their own preferences, fears, and emotions.[27]

A further confirmation of the presence of prelinguistic capacity in nonhuman animals comes from studies of intelligent beings evolutionarily distant from us, such as dolphins. Obviously, in such a case it is much easier to observe the passive side of linguistic ability, that is, comprehension as opposed to production. Some bottle-nosed dolphins in captivity have been instructed in artificial languages whose words (comprising substantives, verbs, and qualifiers) consist of computer-generated sounds or video images of the instructor's gestures. According to the reports of the researchers, in short order the dolphins learned to successfully carry out around two thousand commands represented by strings of words, revealing that they can grasp both the semantic and the syntactic aspect.[28] If one thinks of how alien the visual-terrestrial cognitive human environment can be for beings whose natural environment is acoustic-aquatic, and how difficult are the living conditions of so-called marine laboratories, one can realize the real level of these results. Other evidence came from unexpected areas: parrots, for example, have recently demonstrated that they know how to use expressions like “I'm sorry” (after an error in the test) or “wanna go back” (before a visit to the vet), thus exhibiting a use of language capable of going far beyond the purely phonetic imitation traditionally attributed to them.[29]

But the actual teaching of a language to nonhuman animals is not the only way in which the Darwinian thesis can be put to the test. Although with less public recognition, some authors have undertaken

the attempt to directly identify a continuity in the relevant cognitive patterns. Since in this case the fundamental methodological question How is it possible to discern the potential for linguistic communication in individuals without a spoken language? is shared with investigations into language learning in children, a theoretical collaboration once difficult to imagine was established between developmental psychologists and comparative psychologists. Research focused on three signs of potential linguistic ability: imitative pretence, intentional deception, and that communication of nonnatural meaning which, according to H. P. Grice, characterizes intentional human communication.[30]

The idea that imitative pretence can in some way forebode language traces back to Bateson's analysis of metacommunication in nonverbal beings. Bateson suggests that play is the typical situation in which a being can simulate its activities and render evident to others the fact of simulation. Of course, social play is, to varying degrees of complexity, widely diffused among nonhuman animals.[31] The second element, intentional deception, is accompanied by the capacity for dual description: in order to deceive one has to be able to distinguish between reality and mental representation, so as to see events from the perspective of the interlocutor, and to attempt to cause mental representations that do not correspond to reality. In animals, deliberate deception has been verified in a number of contexts, which vary from competition for sex or food to the relationship between predator and prey, which can be the source of real strategies.[32]

The attribution of both imitative pretence and intentional deception is in clear contrast to the widespread interpretation of animal behavior that Griffin defined as the "groans of pain view,"[33] because it sees the signals of nonhuman animals as the direct result of internal physiological states—something similar, indeed, to our groans. The degree to which this interpretation is challenged today is further demonstrated by reflection on the last aspect we cited—that is, on the communication of nonnatural meaning. Grice's theory of nonnatural meaning implies that in producing utterances, a communicator presumes that others recognize the communicator's own intention that they do or believe something as a result of the utterance. It thus involves an apparently quite convoluted process, which seems to require, in addition to the presence of metarepresentations, the actual possession of a verbal language. But, as authors such as the Spanish psychologist Juan Carlos Gómez have maintained, the form of reciprocal

awareness implicit in communication of nonnatural meaning can also be realized in a nonverbal way. This can happen, for example, through the mechanism of attention—a mechanism fundamentally, albeit not exclusively, based on eye contact. First gazing to the desired object and then to the eyes of the interlocutor, nonverbal beings can create a chain of attention that has as many levels as those of metarepresentations and that can efficaciously attain the result desired from intentional communication. "Attention contact" is how Gómez defined the mechanism that consists in paying attention to the attention of the other who in turn pays attention to our attention.[34] Present also in children, preverbal communication based on eye contact has been noticed in animals in connection with various functions. While some respond to basic situations, such as the purely attentional function (to make one look in a certain direction) or the function of request (the so-called "begging" in circumstances of food-sharing, sexual allurement), others are quite sophisticated. According to some researchers, for example, chimpanzees who go out in patrols consult each other silently about the decisions to be made, and it also seems that the entire group uses silent communication to decide when to leave home and where to meet later.[35]

Overall, therefore, the Darwinian idea that human language is the natural extension of systems of signals existing in other animals has not only been recovered but also successfully defended in many recent studies. This added a final, decisive piece to the intellectual shift taking place. For if the work of many philosophers and ethologists has definitively brought about a crisis in the behaviorist idea of the unconscious animal, what the authors investigating nonhuman linguistic abilities have suggested is that even the direct access that has always been considered confined to our minds can sensibly be extended to the (once nonexistent) minds of animals.