



CONTEMPORARY DEBATES ON THE STATUS OF ANIMALS

Martha Nussbaum concludes her review discussion of Steven Wise's *Rattling the Cage* with the observation that the moral status of animals "is an area in which we will ultimately need good theories to winnow our judgments because our judgments are so flawed and shot through with self-serving inconsistency."¹ The clearest sign that such theories are needed is that, often against their proponents' best intentions, the leading contemporary theories of the moral status of animals ultimately privilege the interests of human beings over nonhuman animals. Academic philosophers use such terms as "robust" to characterize theories that are well grounded, persuasive, and effective in shaping insights about the subject matter of theories. For a theory of the moral status of animals to deserve such a characterization, it must counter the self-serving inconsistencies of contemporary theories.

A different approach is proposed by Richard Sorabji, who states that "from a philosophical point of view, I do not think that we have to adopt any moral theory at all, and certainly not any moral theory . . . which seeks, as far as possible, to boil down all considerations to one."² In particular, Sorabji criticizes the limitations and problematic conclusions of Peter Singer's utilitarian theory and Tom Regan's inherent value theory. Singer bases judgments about moral worth on sentience (the ability to experience pleasure and pain) and the capacity to satisfy preferences, whereas Regan appeals to capacities such as cognition, self-awareness, and self-determination. Advocates of virtue ethics also rely on the notion of capacities and, like advocates of utilitarianism and inherentism, they tend to conceptualize the capacities of human beings as superior to those of

animals in ways that are morally significant. The central limitation of these approaches is that they lead to the sort of self-serving prejudice that motivates Nussbaum's cautionary remark. By focusing on capacities such as preference satisfaction, selfhood, virtue, or a self-reflective awareness of the future, these philosophers base judgments of moral worth on the degree of sophistication or complexity of a being's subjective inner life. In doing so, they implicitly support the notion of the autonomous human individual that has become the linchpin of liberal political theory. At the same time, the moral upshot of these theories is that animals ultimately compare unfavorably to human beings on the relevant measures and are inevitably branded with an inferior moral status vis-à-vis human beings. The resulting dilemma is that we cannot dispense with the liberal ideal of the individual in the political realm, but this ideal is ill-suited to protect the moral status of animals.

Sorabji's response to the limitations of inherentism and utilitarianism is to call into question the very endeavor to marshal a moral "theory" to vindicate the moral status of animals, and to recommend instead that we appeal to our "own values, rather than offering theoretical support for any values."³ This is intriguing, but it is not the approach that I pursue in this book. Appeals to "our own values" are like appeals to our intuitions: these values are often prejudices that stand in need of evaluation and revision. It is here that theories can assist us in reevaluating our moral relationship to animals. What is needed is a view of animals that includes considerations of capacities such as cognition and sentience, while not making these considerations exclusive or paramount. Sorabji's approach to animals can accommodate such a view. He says that "multiple considerations are needed" in the study of animals, because "elaborations of the one-dimensional theories do not seem to get at the reasons that move us, even if they help those theories to reach more acceptable verdicts."⁴ My working hypothesis is that cognition and sentience are each sufficient conditions for establishing the moral status of animals, but that neither is a necessary condition. This leaves open the possibility that other considerations are fundamental to the moral status of animals. It poses no challenge to the importance of sophisticated capacities such as reflection and self-determination in the sphere of human relations, but it remains open to the limitations of such capacities in considerations of the moral worth of animals.

Hume suggested that "the life of a man is of no greater importance to the universe than that of an oyster."⁵ From the standpoint of contem-

porary prejudices about the relative value of human beings and animals, Hume's statement is ridiculous. Oysters possess no central nervous system and thus are not even capable of sensations of pain; they are so lacking in sentience that it seems absurd to accord them any moral status, let alone a status on a par with human beings. Nevertheless, my working hypothesis leaves open this possibility. If we proceed on the a priori assumption that creatures such as oysters cannot possibly have anything like the moral status of human beings, our arguments will be undermined by anthropocentric prejudice. Even if we ultimately conclude that oysters do not enjoy the same moral status as human beings, I argue that we must start with openness to the possibility that they do.

Such an openness is expressed in Homeric and pre-Socratic thought, but Aristotle presents a serious challenge to it that remains dominant throughout the history of Western philosophy. Nonetheless, some aspects of that early openness persist in Western thought and conflict with the dominant line of thought. This is evident in contemporary debates about animals and their moral status.

Current Philosophical Discussions of the Moral Status of Animals

The two most influential contemporary philosophers working in animal ethics are Peter Singer and Tom Regan. Although their philosophical positions are opposed in fundamental ways, they share a common goal: to inspire a wholesale rethinking of the moral status of animals, and to move people to change their received values and prejudices about the treatment of animals. Singer advocates a utilitarian approach, while Regan advocates a deontological or "inherentist" approach. As different as these two approaches are, their implications for the valuation of animals are strikingly similar.

Singer proposes "a broadly utilitarian position" in which utility is not to be understood simply in terms of pleasure and pain, but in terms of "the interests of those affected."⁶ Singer focuses on the ability to have interests because he believes that some sense of "subjectivity" or selfhood is necessary if a being is to be considered to possess moral status. For Singer, all sentient beings are subjects or selves. Sentience can be understood in a number of ways. Often it is understood as a capacity for thought or cognition; but Singer conceives of it as the capacity to experience pleasure or pain, and he makes this capacity requisite for moral status.

To have interests, “a being must be capable of suffering or experiencing pleasure.”⁷ Singer emphasizes interests because on his view, pleasure and pain are part of a larger complex of ways of relating to the world. They are not merely discrete experiences that some beings have. Mountain ecosystems, the Grand Canyon, coral reefs, and giant sequoias lack moral status because they are incapable of experiencing pleasure or pain, and hence are incapable of having interests. Because they have no interests, it makes no sense to consider whether their interests are being promoted or frustrated. Beings such as sequoia redwoods and oysters cannot be benefited or harmed, hence they have no claim to inclusion in any utilitarian calculus. The interests of people or certain animals may be affected by the things we do to forests or ecosystems, and to this extent our actions affecting these sorts of beings often do figure in our utilitarian calculations. But in such cases, the harms or benefits are not to the forests or ecosystems but to the people or animals in question.

If we grant that many animals experience pleasure and pain, then on Singer’s view we must also grant that these animals have inner lives that involve them in a web of interests and at least quasi-intentional behaviors. For example, Singer considers it obvious that apes that use language must necessarily employ concepts, and he likewise considers it obvious that animals that engage in deceptive behavior must possess “self-consciousness and the consciousness of another.”⁸ But such sophisticated behavior is not needed for an animal to have intentional states. Just in virtue of the capacity to experience pleasure and pain, an animal can be said to have “wants and desires.”⁹ Although Singer does not focus on beliefs, he could argue that if an animal has desires, it also has beliefs and hence possesses intentionality, selfhood, interests, awareness of self in contrast with others, and similar capacities for sentience. As noted, however, Singer restricts his focus and his argumentation to sentience conceived as the capacity to experience pleasure and pain.

On the basis of this conception of sentience, Singer argues that utilitarian considerations demand not equal treatment but rather equal *consideration* of interests.¹⁰ This means that the interests of all sentient beings must be considered equally, but that utilitarian considerations may justify unequal treatment. Several years ago, when Singer was given a chair in ethics at Princeton University, many people were outraged because Singer argues that it is more justifiable to experiment on low-functioning (“marginal”) humans than on high-functioning nonhumans such as apes. Singer’s rationale is that an irretrievably comatose human’s interests count

less because the comatose condition apparently makes it impossible for that human to experience any pleasure or pain at all, whereas a conscious bonobo has a rich sentient life. Thus the comatose human's interests are outweighed by the interests of a healthy bonobo or chimpanzee (which on some accounts have mental functioning equivalent to a three-year-old human), and we should give priority to the interests of the ape. An important part of Singer's argument is that our inclination to give preference to any human over any animal is simply a vestige of dogmatic speciesism—dogmatic, because our preference is based on nothing but the sheer fact of membership in our own species, without regard to that being's capacity for sentience.¹¹

Thus Singer argues for the abolition of factory farming and adoption of a vegetarian diet for human beings. This would alleviate the suffering of animals and enhance their prospects for pursuing their interests. Singer acknowledges the costs to humanity of abolishing factory farming, but he notes that these costs will occur only once. Regarding changes in our diet, Singer stresses that his call for vegetarianism is not categorical: "Whether we ought to be vegetarians depends on a lot of facts about the situation in which we find ourselves."¹² It is incumbent on us to be vegetarians only to the extent that doing so contributes to optimal utilitarian results. Thus, as Cora Diamond observes, "your Peter Singer vegetarian should be perfectly happy to eat the unfortunate lamb that has just been hit by a car," because eating the lamb inflicts no harm on the decedent, and it (ex hypothesi) benefits the diner.¹³ Only a moral absolutist would argue that a person should not eat the lamb; Singer explicitly disavows "all . . . forms of moral absolutism." "Vegetarianism is, for [Singer], a means to an end rather than an end in itself."¹⁴ Singer no more places an absolute value on the lives of animals than he does on the lives of human beings. Depending on the circumstances, we should be prepared to sacrifice one or the other if doing so will result in a better utilitarian outcome.

Except in highly unusual circumstances, such as that involving a trade-off between the interests of an irretrievably comatose human being and a high-functioning primate, the principle of "equal consideration" of interests constitutes the basis for preferential treatment of human beings. Notwithstanding Singer's intention to improve the lives of animals, the principle of equal consideration functions much as Marx says the liberal principle of legal equality does: by treating unequal beings as if they were equal, the principle of equal consideration of interests preserves

underlying de facto inequalities. The root inequality in Singer's position follows from his orientation on interests. Outwardly, his analysis of interests in terms of the capacity to experience pleasure and pain seems to put human beings and animals on an equal plane. But the concept of interests in utilitarianism is more complex than this suggests. John Stuart Mill articulates the unexpressed presupposition of Singer's utilitarianism: that human beings have a fundamentally more sophisticated capacity for happiness than animals, because human beings possess rationality. Even though all sentient creatures' interests must be taken into account in the utilitarian calculus, "a beast's pleasures do not satisfy a human being's conceptions of happiness. Human beings have faculties more elevated than the animal appetites, and when once made conscious of them, do not regard anything as happiness which does not include their gratification."¹⁵ Thus intellectual pleasures are fundamentally superior to brute pleasures, just as Aristotle argues in the *Nicomachean Ethics*. Regan notes that Singer views humans and animals alike as "receptacles" that can accommodate quanta of pleasure or pain.¹⁶ To the extent that human beings are fundamentally capable of being "filled" to a greater degree than animals, in all or most utilitarian comparisons between human beings and animals, the interests of human beings take precedence.

Singer emphasizes eliminating practices, such as factory farming, in which the most egregious offenses against animals are committed. The potential of utilitarianism to counter practices such as animal experimentation is less clear, particularly in cases in which the gain to human beings promises to be great. Thus Stuart Hampshire states that utilitarianism "places men at the very center of the universe, with their states of feeling as the source of all value in the world."¹⁷ Utilitarianism does not imply this inherently, to the extent that all the interests of all sentient beings are considered; but utilitarians do so as a matter of practice, because human beings ultimately make the calculations. A basic tenet of utilitarianism is that only the individual in question can say definitively what his or her interests are and how much enjoyment or suffering he or she will experience from the promotion or frustration of those interests. When humans make utilitarian calculations on behalf of animals, the likelihood of anthropocentrism is high. It is easy to provide rationalizations—that we can minimize animal suffering, that it is "natural" for people to eat meat, that we will eat only free-range cattle, that we will provide the animals with a comfortable life right up to the moment when we kill them painlessly, that the true value of our uses of animals can be

properly grasped only when viewed in the larger context of a web of interests and projects whose range and sophistication are possible only for human beings. None of this is to say that utilitarianism is of no use in considerations of moral worth, but only that utilitarianism is insufficient *on its own* for evaluating the moral status of animals.

Tom Regan attempts to avoid this limitation of Singer's utilitarianism by taking a deontological approach to the moral status of animals. Instead of focusing on sentience and the capacity to satisfy preferences or pursue interests, Regan focuses on the complex cognitive apparatus of "perception, memory, desire, belief, self-consciousness, intention, [and] a sense of the future."¹⁸ Any being that possesses these capacities possesses inherent worth and merits moral consideration; for Regan, this includes at least "mentally normal mammals of a year or more," and may include other animals as well, although Regan makes his case only for mature mammals.¹⁹ These animals are "autonomous" in the sense that "they have preferences and the ability to initiate action with a view to satisfying them"; they are "individuals who act intentionally."²⁰ Autonomy in animals is thus not as sophisticated as it is in human beings; it is not the full-blown autonomy of a Kantian moral subject. But it is nonetheless sufficient for the initiation of projects and the cultivation of an individual life, and for Regan this is sufficient to qualify animals as moral patients if not as moral agents. For thinkers such as Kant to deny inherent value to animals when they clearly possess intentional agency (the ability to form and act on the basis of beliefs and desires, and to engage in acts of abstraction) is "arbitrary in the extreme."²¹ According to Regan, Kant's mistake is to draw a sharp distinction between "persons" and "things," and to classify all and only rational, language-using beings as "persons" while relegating all subhuman beings to the class of mere "things." Kant thus maintains—incorrectly, in Regan's view—that only those beings capable of moral responsibility can have inherent value and thus be proper objects of direct moral consideration. Regan notes that animals are fundamentally "innocent," that is, they are incapable of committing redressable wrongs, but they nonetheless possess inherent value just as we consider severely mentally impaired human beings to possess inherent value.²²

Even if animals are not "persons" in the Kantian sense, on Regan's view they merit inclusion in deontological moral considerations because they are "subjects-of-a-life" with "beliefs and desires; perception, memory, and a sense of the future, including their own future; an emo-

tional life together with feelings of pleasure and pain; preference- and welfare-interests; the ability to initiate action in pursuit of their desires and goals; a psychophysical identity over time; and an individual welfare in the sense that their experiential life fares well or ill for them, logically independently of their utility for others and logically independently of their being the object of anyone else's interests."²³ All subjects-of-a-life possess inherent value, and all such beings possess inherent value equally. This means that animals possess inherent value and deserve respect, just as human beings do. Regan rounds out this picture of the basis for animal rights by noting that the subject-of-a-life criterion is a sufficient but not a necessary condition for attributing inherent worth to a being.²⁴ He makes this qualification because he believes that natural objects can have inherent value even though they are not subjects-of-a-life.²⁵ Regan thus seeks to avoid the problem of anthropocentrism by acknowledging the possibility of making a case for the moral status of natural beings that does not depend on mental capacities.

Regan's position in *The Case for Animal Rights* has the same limitation as Singer's utilitarianism. This is evident in Regan's lifeboat example. "Imagine five survivors are on a lifeboat. Because of limits of size, the boat can only support four. All weigh approximately the same and would take up approximately the same amount of space. Four of the five are normal adult human beings. The fifth is a dog. One must be thrown overboard or all will perish. Who should it be?" Regan's answer is that "no reasonable person would suppose that the dog has a 'right to life' that is equal to the humans'."²⁶ The dog should unquestionably be thrown overboard, because "the harm that death is, is a function of the opportunities for satisfaction that it forecloses, and no reasonable person would deny that the death of any of the four humans would be a greater *prima facie* loss, and thus a greater *prima facie* harm, than would be true in the case of the dog."²⁷ Moreover, "numbers make no difference in this case. A million dogs ought to be cast overboard if that is necessary to save the four normal humans."²⁸

Thus on Regan's view, two beings that have inherent moral worth are not necessarily to be treated equally. On Regan's view, the human being's "prima facie loss" is so incomparably greater than that of *any* number of dogs that a human's life, under "normal" circumstances, is *never* to be sacrificed for the sake of even a million dogs. On this reasoning, it would appear to be morally acceptable to sacrifice the life of every animal on earth for the sake of one human being, at least in the hypothetical situ-

ation in which we could ignore the environmental devastation that would ensue. As Dale Jamieson has observed, Regan's view entails that

animals in lifeboats, like animals on farms, are all equal; but some are more equal than others. Recall the governing metaphor: inherent value is the value of the receptacle rather than the value of the contents. If inherent value is to play any well-motivated role in Regan's theory, it would seem that it must block inferences from the content of a creature's life to conclusions about the creature's moral entitlements. Yet despite his denials it appears that Regan makes exactly this sort of inference in his discussion of the lifeboat case.²⁹

At its core, then, Regan's rights-based approach to the moral status of animals is subject to the same anthropocentric prejudice as Singer's utilitarian approach. It is important to consider the question how awareness of the long-term future, the ability to envision and cultivate a more complex and self-aware life, and the ability to reflect on the meaning of enjoyment and suffering entail a superior *moral* status for human beings vis-à-vis animals. Is it not possible that a being can suffer harm whether or not it is aware of the harm it suffers, and regardless of how similar its modes of awareness are to those of a human being? This is the possibility Regan proposes when he says cognition is sufficient but not necessary for moral status. I now examine this possibility as a supplemental basis for assessing the harm that a being such as a dog might suffer if it were thrown overboard.

In his poem "The Lizard," Theodore Roethke expresses an appreciation of this possibility, by depicting a person's reflection on the experience of a lizard with whom he is sharing a terrace. Both have just eaten, and both are sitting calmly on the terrace, eyeing each other. The person wonders whether lighting a cigarette would disturb the lizard, proceeds to light the cigarette, and calmly observes the lizard while being calmly observed. Roethke clothes this encounter in a mood of repose and ancient memory, in which the person comes to wonder whose standpoint really has primacy in this encounter.

To whom does this terrace belong?—
With its limestone crumbling into fine grayish dust,
Its bevy of bees, and its wind-beaten rickety sun-chairs.
Not to me, but to this lizard,
older than I, or the cockroach.³⁰

Roethke's reflection on the life of the lizard draws attention to the fact that the lizard has a life of its own that is unknown to us, and whose significance may not be captured adequately by the language of intentionality and "psychophysical identity over time." For Regan as for Singer, the basis for giving priority to the life of a human being over that of a lizard is that "in the vast majority of cases, a human's death wipes out greater opportunities for satisfaction than does the life of a trout, lizard, or alligator. The mental lives of these animals are presumably pretty dim. Of course, that means they suffer less, a point with which we need to come to terms."³¹ We must also come to terms with the possibility that the moral worth of such animals may be due in part to considerations that have nothing to do with how "dim" those animals are. The mental lives of severely mentally impaired human beings "are presumably pretty dim," but it is not clear that this gives us license to treat such human beings as many people treat trout, lizards, and alligators. If we believe that "marginal" human beings (infants, the severely mentally impaired, and so on) have moral worth despite their limited capacities for cognition and sentience, then the same should hold for a wide variety of animals.³²

Although no systematic attempt has yet been made to marshal virtue ethics on behalf of animals, the central concepts of virtue ethics have been appealed to with increasing frequency in recent years, together with their underpinnings in Aristotelian ethical naturalism. The terms of Aristotle's naturalism attribute to each creature a good that is its proper end in life, and the pursuit of which characterizes that creature's activity. The virtue of each being is to be evaluated by its capacities, which determine its proper end. A basic distinction between humans and animals is that we possess the freedom to determine ourselves (and thus to succeed or fail in pursuing our ends), whereas animals lack this freedom; their natures are fixed, and they live in accordance with their nature because they are not free to do otherwise. The only factor that can prevent an animal from living in accordance with its nature is a birth defect. Thus, for example, "a good elephant is one which has good tusks, follows the leader, does not attack other elephants, looks after its young, is not frightened of water, etc."³³ It is "virtuous" in the sense that these capacities are its excellences; they enable it to flourish. Moral virtue is the exclusive end of human beings on this view, because only human beings are rational. Animals, by comparison, can act so as to continue their species and they live in accordance with the life expectancy proper to their kind and circum-

stances. They have no higher ends than the optimization of these material considerations that lead to their thriving.

According to virtue ethics, morality is defined not in terms of duties or utility, but in terms of the moral life. Such a life is understood primarily in terms of Aristotle's notion of character and the ideal of cultivating particular moral virtues such as courage, temperance, and compassion. Aristotle envisions a whole human life or the life of a human community as the proper unit of measure for morality. Particular actions are not moral unless they are chosen for their own sake, are in accordance with right reason, and proceed from a stable character state that the agent has developed over a long period of time.³⁴ On Aristotle's view, animals are incapable of moral virtue because they lack the rationality requisite for satisfying these conditions. "Animals and plants can flourish, but *eudaimonia* [Aristotle's term for the moral life] is only possible for human beings."³⁵

Aristotle never classifies concern for animals among the virtues. For virtue ethics to support the endeavor to vindicate the moral status of animals, a case would have to be made that some virtue or combination of virtues grounds the respectful treatment of animals. "The concept of a virtue is the concept of something that makes its possessor good; a virtuous person is a morally good, excellent, or admirable person who acts and reacts well, rightly, as she should—she gets things right."³⁶ I now consider whether we simply do not "get things right" when we exhibit indifference to the suffering that we inflict on animals. Rosalind Hursthouse's remarks on vegetarianism are instructive in this connection. Noting that vegetarianism is a practice rather than a virtue, Hursthouse says it is right for "people in the circumstances that make it possible for them to write or read this sort of book" to practice vegetarianism—not because we "get things right" when we recoil at the thought of killing an animal for our gastronomic pleasure, but rather "on the grounds that (i) temperance (with respect to the pleasures of food) is a virtue, and (ii) that for most of 'us', eating meat is intemperate (greedy, self-indulgent)."³⁷ These appear to be the grounds on which Socrates proposes a vegetarian *kallipolis* (ideal or "good" city) in the *Republic*.³⁸ Hursthouse adds that virtue ethics implies that all "ethical evaluations are made from within an ethical outlook, an outlook which already has its own conceptions of the virtues, and related conceptions of what is good, beneficial, advantageous, worthwhile, important, enjoyable (and their opposites), and of what we have reason to do."³⁹ Thus virtue ethics might be pursued from

an ethical outlook in which considerations other than temperance recommend vegetarianism. We simply do not “get things right” if we take animals as sources of food.

Rather than exploring such an outlook, Hursthouse states that she and readers like her should embrace vegetarianism because it is temperate to do so. She conceives of temperance not with respect to meat eating, but rather “with respect to the pleasures of food.” This is in accordance with Aristotle’s definition of temperance as moderation or a mean “with regard to pleasures and pains.”⁴⁰ More specifically, temperance is moderation with regard to bodily pleasures such as eating and drinking; the corresponding excess is self-indulgence, and for the corresponding deficiency there is no name.⁴¹ Given this account of temperance, to advocate vegetarianism on grounds of temperance is to evaluate meat eating as self-indulgent in principle, which is to say that we derive too much pleasure from the practice. Because meat eating is not a virtue, but rather a practice, it makes no sense to speak of moderation in meat eating, but only of moderation in the amount of bodily pleasure we permit ourselves. So Hursthouse’s analysis does not permit us to “get things right” simply by refraining from overindulgence in meat; she construes meat eating *per se* as self-indulgent—there just is no such thing as eating meat moderately, because eating *any* meat at all provides intemperate (excessive) pleasure.

Hursthouse’s analysis of meat eating exposes two key features of the virtue ethics approach to animals. First, according to virtue ethics, meat eating, and by extension a variety of other uses of animals such as experimentation for the benefit of human beings, is not inherently pernicious. Instead, the moral status of such uses of animals is determined in each case by the underlying moral outlook and the specific virtues that it accommodates. Second, virtue ethics makes moral evaluations from the standpoint of the good life for human beings. It promotes the cultivation of character states that enable human agents to live in moderation with regard to those virtues acknowledged by the prevailing moral outlook. According to the terms of the moral outlook that prevails in our society, specifically *human* welfare is of such central concern in virtue ethics that Hursthouse challenges the proposition that concern for animals should be placed on a par with concern for our own species:

With respect to the continuance of the species and the good functioning of the social group, our natural tendency to bond to other human

beings and our children seems to be serving us rather well. The onus is on those who recommend impersonal benevolence as a virtue to provide at least a speculation about how a species of rational animals who had brought themselves to care naught for their own children or each other's company might still be a species of *social* animals who, moreover, nurtured their young—and, indeed, went to the trouble of giving them a moral education and bringing them up to be impersonally benevolent in their turn.⁴²

Thus, deep concern for nonhuman species is incompatible with virtue ethics, at least according to the terms of our inherited moral outlook.

This shows the limits of virtue ethics as it has been conceived in our culture. As DeGrazia notes, an animal is “a being who [can be] wrongfully harmed, not simply a practicing ground for virtue.” Virtue ethics “leaves entirely unexplained why cruelty to animals is a vice and compassion to them a virtue—if, as the position assumes, animals lack moral status and therefore cannot be directly wronged.”⁴³ Whether this limitation of virtue ethics can be overcome depends on the extent to which virtue ethics can be incorporated in an ethical naturalism in which the significance of animals in the cosmos is a basic commitment. Martha Nussbaum, for example, argues that the same considerations requiring us to permit the development of human capabilities also require us to permit the development of animal capabilities. With regard to human beings, Nussbaum maintains that “the presence of certain powers, deemed valuable in themselves, gives rise to justified claims on the part of the person who has the powers, that they not be stunted or wasted, but given a chance to develop.”⁴⁴ With regard to animals, she notes that “the language of capabilities equips us to move beyond the species barrier. Just as it prepares us to see dignity in our own animal faculties . . . so, too, the capabilities approach, already seeing in animality something valuable and dignified, prepares us to turn to the difficult issue of animal entitlements.” Nussbaum considers an extension of the capabilities approach to animals to be “essential to the theory's integrity and its completeness.”⁴⁵

Even though Nussbaum's intent is not to vindicate virtue ethics but rather to present her own “capabilities” approach, her remarks nonetheless provide grounds for envisioning a virtue ethics that can contribute to a robust animal ethic. Against the background of a holistic view of the inner kinship or commonality between human beings and animals, such a virtue ethics would make virtues such as piety and compassion the ba-

sis of moral regard for animals. It would be a virtue to recognize and promote the capacity of an animal to flourish.

Whether such a revised conception of virtue ethics is possible is unclear. It does not meet DeGrazia's challenge that because virtue ethics by its very nature is concerned with *human* excellence, it reduces animals to "a practicing ground for virtue." Thus the underlying outlook guiding virtue ethics would have to be radically revised to make a place for animals as participants in a sphere of moral relations. Along these lines, S. F. Sapontzis argues that animals can be virtuous even though they are incapable of being moral agents. "Only rational beings can be fully moral agents," because only rational beings are capable of being "moral_{ad}." "Moral_{ad}" refers to "the agent-dependent dimensions of moral value. . . . These are the dimensions of moral value that depend on the agent's understanding of the situation and of his own action, including their moral significance, and on his motive for acting." "Animals cannot be fully moral_{ad} beings . . . because their actions are not part of an attempt to fulfill an ideal way of life."⁴⁶ Sapontzis acknowledges Hursthouse's distinction between beings that are free to determine themselves and those that are not. Even though animals are not capable of self-determination and hence are not moral agents, Sapontzis maintains that "many animals are virtuous."⁴⁷ They exhibit loyalty, affection, courage, and a variety of other qualities that we call virtues.

Sapontzis does not address the question how a being that acts entirely in accordance with its nature can be considered virtuous; he simply follows commentators such as Mary Midgley in observing that many animals behave in ways that we associate with virtues such as loyalty. "Although [animals] may be unable to recognize how virtuous action contributes to the attainment of an ideal world, they do recognize the needs of others and respond to those needs compassionately, courageously, responsibly, loyally, and so forth. To that degree, they do recognize and respond to moral values. That is enough to earn them a place in the moral_{ad} arena and to discredit the claim that only rational beings can occupy that place of honor."⁴⁸ Sapontzis's approach has the advantage of presenting animals as beings with lives, endeavors, and a moral status that corresponds to capacities to act that are much more sophisticated than most people are inclined to suppose. Here a conception of cosmic holism, the notion of an essential commonality between human beings and animals, might provide the necessary background for the emergence of a revised virtue ethics that would incorporate a sense of concern for animals as well as for

human beings. The roots of such a sense of cosmic holism lie in early Greek antiquity, and I examine this in the next chapter.

A central argument underlying the present study is that none of the approaches examined above—utilitarianism, deontology, and virtue ethics—is capable on its own of adequately addressing the problem of the moral status of animals. Capacities approaches work well for animals that exhibit relatively sophisticated cognitive skills and conduct that strikes us as loyal, courageous, and so on. But these approaches are ill-suited to the moral evaluation of other sorts of animals—Hume’s oyster, say, or Roethke’s lizard. What is needed is an ethical naturalism or cosmic holism according to which human beings are part of a larger cosmic whole and have a fundamental kinship relation to animals. On this basis, utilitarianism, deontology, and virtue ethics can be united and their limitations overcome.

Contemporary Ethology and the Question of Animal Capacities

Two responses are possible to the argument that animals lack certain capacities required for moral status: one can argue that the possession of such capacities is not really relevant to the question of moral status, or that animals do in fact possess the capacities in question and thus do possess moral status. Most of the animal advocates I discuss above take the latter approach. As a result, they often attribute too much to animals, whereas the major exponents of the tradition attribute too little. The crucial question about animal awareness is what sorts of capacities must be attributed to animals to account for the complex discriminatory and problem-solving behavior many of them exhibit. In short, what must their awareness must be like for them to act teleologically? Recent ethologists have done a great deal to confirm that many animals possess some sort of sophisticated cognitive apparatus. What remains at issue is how animal cognition is best to be understood, and whether and to what extent cognitive capacities are relevant to considerations of moral worth. Philosophers such as Regan attribute to animals complex abilities modeled on human cognition, such as self-awareness, a sense of the future, and a “psycho-physical identity over time.” Martha Nussbaum asserts that animals (she is not clear exactly which ones) possess the full apparatus of intentionality, and that emotion in animals is predicative and eudaimonistic.⁴⁹ And some contemporary cognitive ethologists believe

that animals such as pigeons and bees possess at least quasi-linguistic communication skills.

The main historical prejudice to which such defenders of animal consciousness are responding is one inherited from the Stoics. That prejudice is that only human beings possess rationality and language, and that these interrelated capacities are absolutely necessary conditions for the possession of moral status. In the first half of this book, I show that this assumption was challenged in the ancient world, but that the prejudice of Stoic anthropocentrism became the dominant voice in the West with regard to animals and their moral status. Defenders of animals have always reacted with indignation to the suggestion that animal behavior is determined by instinct or mechanistic-biological principles. In their zeal to overturn the conventional wisdom about animals, these defenders have attributed to animals qualities and quantities of consciousness that are both indemonstrable and implausible—indemonstrable because of a fundamental problem identified by the philosopher Thomas Nagel, and implausible for reasons developed by the Soviet psychologist Lev Vygotsky.

Some of the earliest philosophers and naturalists recognize a fundamental kinship between humans and animals, without assuming that the experience of animals is necessarily like that of human beings. They are aware that the inner experiences of animals are in principle inaccessible to us, and that the nature of these experiences must remain a matter of speculation. Other ancient philosophers established the terms of much contemporary thinking about animal experience by assuming that the experience and capacities of animals must be the same or similar to those of human beings. In the past century, philosophers have appealed increasingly to research in ethology to support their claims about the nature of animal awareness. This appeal to science has brought with it an implicit sense of the legitimacy of the philosophers' claims. But these claims can be only as legitimate as the conclusions of the underlying ethological research. Ethology, for its part, has undergone a revolution in the past generation, and its basic concepts have not become settled to the point that the results of ethological research can be relied upon with full confidence. The basic problem lies in the axiomatic assumptions made by ethologists.

Contemporary ethology has been shaped by a strong reaction against behavioral ethology, which is based on a rejection of any appeal to “inner” states in accounting for animal behavior. Spearheaded by revolutionaries such as Donald Griffin, the study of animal behavior has been

transformed in the past generation into cognitive ethology, based on the axiom that the behavior of animals must be understood by using an anthropomorphic vocabulary of consciousness and cognition. On Griffin's view, to attribute consciousness to animals is to recognize that animals are capable of "thinking about objects and events" and that some animals may be capable of "memories of past perceptions, or anticipations of future events."⁵⁰ Griffin argues on the basis of analogy to human experience that animals in all likelihood possess self-consciousness and intentional agency. Behavioristic appeals to genetic programming are not categorically incorrect, but "it does seem more parsimonious" to suppose that animals employ conscious thought in adapting to their environments.⁵¹ Such thought includes the capacity for "if-then" inferences and the use of concepts, even in invertebrates such as bees.⁵²

Philosophers following Griffin's logic have appealed to evolutionary continuity and neurophysiological similarities between animals and human beings to strengthen the case for cognition in animals. DeGrazia, for example, takes these considerations, together with the explanatory power of the intentional stance, as persuasive grounds for concluding that many animals possess the full apparatus of intentionality, which includes self-consciousness, conceptual understanding, and the capacity for intentional states such as beliefs and desires.⁵³ Much research in cognitive ethology has been done to test and defend the hypothesis that animals employ intentional cognition. The basis most often appealed to in claims about animal cognition is that the behavior and versatility of animals seem incomprehensible in the absence of intentionality. How are chimpanzees able to cooperate in problem-solving tasks, pigeons able to engage in highly complex discrimination, and bees able to convey so much information with the bee dance, if these animals have no intentional agency or capacity to form and use concepts?

The problem with this sort of reasoning is, as Thomas Nagel points out, that it relies too heavily on analogy to human experience, and thereby anthropomorphizes the experience of animals. The differences between our perceptual encounter with the world and that of nonhuman animals are sufficiently great that we cannot ultimately know what it is like to be, say, a bat. Our reflections on animal consciousness are irretrievably speculative.⁵⁴ Implicit in Nagel's observation is the acknowledgment that evolutionary continuity gets us only so far in the endeavor to understand the nature of consciousness and subjective experience in animals, as well as a recognition that some differences of degree between human beings

and animals are so great as to constitute differences of kind. In the remainder of this chapter, I focus primarily on the interrelated capacities for intentionality and conceptual abstraction: Does it make sense to attribute these capacities to animals, particularly those with extremely high levels of cognitive ability such as dolphins and great apes? Is there any reason to suppose that the possession of these capacities is relevant to considerations of the moral worth of animals?

In the three decades since Nagel advanced his thesis about animal consciousness, philosophers and ethologists have sought in a variety of ways to overturn his claim. Some have flatly denied it, proceeding from the putatively “obvious” kinship between humans and animals to the conclusion that our capacity for empathy can disclose some fundamental truths about animal experience. Others have appealed to evolution by arguing that similarities between human physiology and that of many animals, and the similar adaptive demands faced by humans and animals, are a plausible basis for concluding that many animals possess cognitive and emotional capacities similar to those of human beings. But Nagel’s challenge is not easily dismissed. Most people who have spent much time studying or interacting with animals conclude that the linguistic and reflective abilities of human beings make our experience different in fundamental respects from the experience of most if not all animals. Even if we consider it plausible to attribute to animals complex emotional lives and the ability to provide for themselves and their offspring in ways that seem to require capacities such as intentionality and a sense of the future, few if any animals exhibit the capacities for language and abstraction that have long been almost universally considered to be the exclusive possession of human beings. But if intentionality and a fully developed sense of the future depend on the ability to conceptualize things, as most philosophers believe they do, then it seems impossible that animals could be capable of intentionality unless they also possess something like human language.

More specifically, to be capable of intentionality, a sense of the future, and so on, animals would have to be able to employ concepts. They would have to be capable not only of making complex discriminations between different objects, but also of doing so by means of abstractions from concrete particulars that enable animals to associate the particulars with one another. The cognitive ethologists Colin Allen and Marc Hauser distinguish “between recognizing an *X*, and recognizing something *as* an *X* or recognizing it to be an *X*.” The first ability simply reflects

“a discriminatory ability,” whereas the second “says something about the organism’s system of internal representation. To have a concept of *X* where the specification of *X* is not exhausted by a perceptual characterization, it is not enough just to have the ability to discriminate *X*s from non-*X*s. One must be able to have a representation of *X* that abstracts away from the perceptual features that enable one to identify *X*s.”⁵⁵

On the basis of this definition, Allen and Hauser argue that it makes sense to attribute conceptual abilities to at least some animals, and that it might be possible to design experiments to support such attributions. Allen develops this suggestion cautiously by noting that the attribution of concepts to animals is hypothetical. As an example of animal behavior that can be explained by an appeal to conceptual ability, he offers vervet monkeys’ alarm calls, which vary according to predator.⁵⁶ Vervet alarm calls differ depending on whether the predator is a martial eagle, a python, or a large mammal such as a leopard. And the responses exhibited by vervets hearing the call differ according to the specific threat; vervets alerted to the presence of a python run away, those threatened by a martial eagle climb into a tree, and those protecting themselves from a leopard climb onto the small outermost branches of a tree. Vervets also appear to be able to distinguish the calls of individual members of their group. Behaviors and abilities of this sort are difficult to explain unless we assume that vervets are capable of conscious thought and conceptual ability. Another example cited by Allen and Hauser is the apparent ability of vervets to understand the concept of death: vervet mothers seem to grasp the difference between dead and missing offspring. Mothers that take their young to be dead soon “turn off” their concerned response when they hear distress calls of their young that were recorded before the young died.⁵⁷

Other key examples of animal capacities and behaviors that seem to depend on predication and conceptual abstraction include the sophisticated linguistic abilities of some apes, deceptive behavior in a variety of animals, and the ability of pigeons to make highly complex discriminations between different types of object.⁵⁸ Each of these examples is fraught with interpretive difficulties. The apes that learn language, such as Kanzi and Washoe, have limited vocabularies, and although they do comprehend some syntax, they seem unable to reproduce it on their own. In the cases of deception and complex discrimination tasks, if Nagel’s observation about the irreducible particularity of the consciousness of different animals is correct, then we can only speculate about the mechanisms at

work. For example, de Waal has confirmed that a non-alpha male seeking to have sex with a prized female while the alpha male is away will, if the alpha male returns unexpectedly, cover his erection with his hands to conceal his endeavor.⁵⁹ But it remains unclear how such an action is to be interpreted: Is it inexplicable without recourse to concepts and intentional states such as beliefs and desires? Are mental states such as beliefs and desires not predicatively structured in the consciousness of the animal in question, even though from our standpoint as observers such states are incomprehensible in nonpredicative terms? Is it reasonable to suppose that a being that seems largely or completely incapable of language is nonetheless capable of acts of predication?

There are questions of comparable difficulty concerning the interpretation of pigeon discriminatory abilities and the abilities of animals such as the Clark's nutcracker, which is able to bury and later retrieve large numbers of seeds that it has stored for food. Herrnstein's experiments on discrimination in pigeons show that pigeons possess remarkable abilities to discriminate objects such as human beings, water, and trees. The pigeons were able not only to select each sort of object, but to do so even when they were shown only parts of the objects and even when they were shown new items that were not exact matches for the original objects of each kind that they had been shown.⁶⁰ Allen and Hauser note that Herrnstein's conclusions were widely taken to show that pigeons employ concepts, but that Herrnstein et al. never actually argued that pigeons employ concepts, only that they employ "categories," which, unlike concepts, do not involve mental content separate from the particulars classified.⁶¹

Ethologists such as Allen and Hauser want to account for the complex discriminations and adaptive choices made by animals. They reason that conceptual ability is a plausible basis, given its adaptive value. The examples they focus on involve vervet monkeys, which are extremely high-functioning primates. The relative similarity between the brain physiology of higher mammals such as vervets and that of human beings leads John Searle to conclude that intentional states are a more or less obvious feature of the mental capacities of higher mammals, and that the explanation of animal behavior becomes "unintelligible" if we do not have recourse to beliefs and desires.⁶² Searle's claim is most plausible with regard to those animals closest to human beings, the higher primates. But what about other animals, such as dogs and cats? Is it reasonable to suppose, as some do, that any animals exhibiting purposive behavior must

possess intentionality and conceptual ability?⁶³ A number of influential discussions of the question of concepts in animals center on examples involving dogs. Norman Malcolm set off a chain reaction when he proposed in the early 1970s that a dog is presumably thinking when it chases a cat, loses track of it, and sits barking excitedly up the wrong tree.⁶⁴ Donald Davidson argues in “Rational Animals” that Malcolm cannot possibly be right about this, because the capacity for thought presupposes the capacity for beliefs, and having a belief presupposes both an abstract conception of what a belief is and a whole network of beliefs in terms of which any given belief derives its meaning. To the extent that beliefs are propositional attitudes, only beings capable of language can have beliefs. Animals such as dogs, therefore, cannot have any beliefs. Davidson does not appear to conceive of animals as simple machines. He acknowledges their ability to respond to the world in intricate ways, but he maintains that none of this requires the attribution of beliefs to animals. “A creature may react to the world in complex ways without entertaining any propositions. It may discriminate among colors, tastes, sounds and shapes. It may ‘learn’, that is, change its behavior in ways that preserve its life or increase its food intake. It may ‘generalize’, in the sense of reacting to new stimuli as it has come to react to similar stimuli. Yet none of this, no matter how successful by my standards, shows that the creature commands the subjective-objective contrast, as required by belief.”⁶⁵

Other philosophers offer related reasons why it does not make sense to attribute concepts to animals. Wittgenstein asks, “A dog believes his master is at the door. But can he also believe his master will come the day after tomorrow?—And *what* can he not do here?”⁶⁶ The context of Wittgenstein’s remark suggests that the dog cannot have expectations beyond the immediate moment, because to do so requires having a language, which means being engaged in a social network of meaningful exchanges. “Rationality,” as Davidson puts the point, “is a social trait.”⁶⁷ Steven Stich argues that it makes no sense to attribute beliefs and concepts to a dog in an example such as Malcolm’s, because doing so would entail that the dog understood all sorts of abstract notions that the dog just does not seem to understand.

To explain Fido’s behavior it would be perfectly natural to say he believes that the squirrel is up in the oak tree. But suppose now that some skeptic challenges our claim by focusing attention on the differences separating Fido’s belief from ours. “Does Fido really believe it is a squirrel up

in the oak tree? Are there not indefinitely many logically possible creatures which are not squirrels but which Fido would treat indistinguishably from the way he treats real squirrels? Indeed does he believe, or even care, that the thing up the tree is an animal? Would it not be quite the same to Fido if he had been chasing some bit of squirrel-shaped and squirrel-smelling machinery, like the mechanical rabbits used at dog-racing tracks? The concept of animal is tied to the distinction between animals and plants. But Fido has little grasp of these distinctions. How can you say that he believes it is a squirrel if he doesn't know that squirrels are animals?" Confronted with the challenge, which focuses attention on the ideological gap that separates us from Fido, intuition begins to waver. It no longer sounds quite right to say that Fido believes there is a *squirrel* up in the oak tree.⁶⁸

Stich's challenge is like Allen and Hauser's distinction between recognizing an *X* and recognizing something *as* an *X* or recognizing that something *is* an *X*: To recognize that something *is* an *X* presupposes that we understand what an *X* is, how it differs from *Ys*, *Zs*, *As*, *Bs*, and *Cs*, and what it means to be a *Y*, a *Z* and so forth. The extreme consequence of Stich's argument is that we cannot attribute to dogs anything like our concept of, say, a bone, because our concept of bone involves the concept of a physical object, which the dog patently seems to lack.⁶⁹ Daniel Dennett argues, along similar lines, that the attribution of concepts to the dog can be no more than a heuristic device, because it is ultimately impossible to specify the content of the dog's concept of a given thing, for example, a piece of steak. "What the dog recognizes this object as is something for which there is no English word."⁷⁰

There are different ways to respond to the difficulty raised by Stich and Dennett. One is to observe, as Allen does, that the difficulty involved in specifying the content of the dog's concept of something (of a piece of steak, for example) is no bar to the possibility of arriving at some sort of description of the dog's concept. "If we think of the list of concepts, such as nourishment or edibility, that are related to the concept of food, then it might be possible to specify the deletion or addition of links to specific concepts from this list and thereby end up with a concept which does match the dog's." Dennett's argument does not exclude the possibility "that there is some suitably complicated sentence which we lack enough ingenuity (or are too lazy) to discover" that can capture the dog's sense of steak, or food, or a bone, or a squirrel.⁷¹ The fact that the dog has no

concept of physical objects, the law of gravity, osteology, or nutrition in general, does not preclude the possibility that the dog has some kind of concept of steak or bones, even if the dog's concepts are quite unlike human concepts of these same things. Regan employs a comparable strategy in arguing for a "more or less" notion of concepts rather than an "all or nothing" one: It is not necessary for a being, whether it be a human or a nonhuman animal, to possess all of the possible associations relevant to a given concept in order to have that concept. Human beings prior to the chemical revolution had a less adequate conception of bones than we have today, and yet they nonetheless had some concept of bone.⁷² Similarly, young children know little if anything about abstract notions such as "physical object," and yet they are able to distinguish very effectively between cookies and spinach. For Allen and Regan, the same reasoning holds, *mutatis mutandis*, for animals. Even if it turned out to be impossible for us to specify the content of animals' concepts or beliefs, and even if those concepts or beliefs are fundamentally less rich than human concepts and beliefs, it still makes sense to attribute to animals mental states with *content* that the animals can apply to new, unfamiliar cases that are relevantly similar to familiar ones.

This sort of response to Stich and Dennett is intended to preserve the idea that animals are capable of propositional attitudes (intentional states) such as beliefs and desires. The act-object structure of intentional states, for example, "(I believe that) there is one sun in our solar system," is a propositional structure in which the subject and the object are explicitly conceptualized. For the dog to believe that the cat ran up this tree, the dog must be able to conceptualize the objects that we understand under the terms "cat" and "(this) tree." For the dog to desire a particular bone or a steak, the dog must have the concept of bones and steak. How, otherwise, could the dog seek out the objects that command its attention? How could a bull succeed in using its horns rather than its tail to defend itself, unless it had a conceptual awareness of the different parts of its body and proper functions of each?

But do such abilities as self-defense and discrimination between potential sources of food necessarily presuppose conceptualization and intentionality? Allen and Hauser's distinction between recognizing an *X* and recognizing something to *be* an *X* is illuminating here, for it makes it possible to imagine an animal recognizing the different parts of its body and different sorts of potential food without having a concept of any of these. This distinction helps explain Davidson's claim that animals can

be capable of complex discriminations without employing concepts or beliefs at all, and Wittgenstein's claim that the dog cannot believe that someone will come home the day after tomorrow. The consciousness of the dog, as thinkers from the Stoics to Aquinas to Schopenhauer argue, is confined to the present (and perhaps the very near future) in a way that human beings are not, because human beings are capable of conceptual abstraction and a sense of the future as such; human agents are, in turn, able to contemplate different possible objects of desire in relation to one another and in relation to the agent's overall aims, which makes free choice possible for human beings. Animals, in contrast, are moved by objects of desire in a comparatively (if not entirely) mechanical way. Animals, from the Thomistic viewpoint, are *non agunt sed magis aguntur*—they do not act, but are instead acted upon.

Although I do not believe that animals are incapable of choice, I do believe that there is something essentially correct in the traditional view, according to which the consciousness of animals is confined to the present and perhaps the very near term, and according to which animals do not contemplate various objects of desire conceptually. I also think that Davidson is right to propose that the capacity for belief presupposes linguistic ability. Where I disagree with traditional thinkers such as the Stoics and Descartes is in their wholesale denial of consciousness in animals. The Stoics argue that the perceptual states of animals are fundamentally different than those of human beings because animals lack linguistic ability; and Descartes argues that animals “perceive” in nothing more than the way in which we might speak offhandedly of a thermometer “perceiving” a change in temperature. For both the Stoics and Descartes, whose ideas about animal experience are the most influential in the history of Western philosophy, animals are fundamentally incapable of beliefs and desires.⁷³ The Stoics and Descartes arrive at this conclusion because they are sensitive to the limitations imposed on animal experience by the lack of linguistic ability, which includes the capacity for conceptual abstraction. But they err by going to the extreme of denying most (the Stoics) or all (Descartes) aspects of inner experience to animals, thereby leaving us with an impoverished view of animal mentality.

Fundamental to the task of understanding animal experience is the problem of conceptualizing animal consciousness in terms that do not require recourse to concepts and propositional attitudes. The real puzzle of animal behavior is how animals can engage in acts of discrimination that are sometimes enormously complex, without employing concepts or

intentional states. What is needed is a way of accounting for the complex discriminatory and communicative abilities of a wide variety of animals, without unduly anthropomorphizing them. In addition to the examples of animal resourcefulness already mentioned, the remarkable capacities of bees merit brief mention in this connection. Gould and Gould have shown that bees use the “bee dance” to communicate detailed information about location, distance, and the kind of object available (nectar, water, or the site for starting a new colony).⁷⁴ To account for such communication, Donald Griffin enthusiastically embraces the intentional stance. He argues that the “versatile behavior patterns and apparently intentional communication” exhibited by creatures all the way down to some invertebrates support “tentatively considering animals as conscious, mindful creatures with their own points of view.” For example, “directional orientation” and the use of a “symbolic communication system” may constitute evidence that honeybees employ concepts. Regarding Herrnstein’s pigeons, which exhibit highly complex discriminatory ability in an experimental setting, “it seems reasonable to suppose that when the pigeons are working hard in Skinner boxes to solve these challenging problems, they are thinking something like: ‘Pecking that thing gets me food.’”⁷⁵

Griffin bases his assimilation of human and animal consciousness on the “clearly demonstrated evolutionary continuity between human and nonhuman communication and thinking.”⁷⁶ Davidson, on the other hand, says that “the intrinsically holistic character of the propositional attitudes makes the distinction between having any and having none dramatic.”⁷⁷ There is strong support for Davidson’s argument. He does not deny any of the apparent facts about evolutionary continuity. But he argues that certain differences in degree are so significant as to constitute differences in kind and that linguistic capacity is one such “dramatic” difference. He acknowledges the sophisticated capacities of animals to negotiate their environments; but he recognizes that their teleological behavior does not entail that they conceptualize their experience nor that they *think* teleologically. Regarding the endeavor to characterize emotion in animals, Konrad Lorenz argues that “terminology derived from human language is insufficient from the outset for the description of the internal processes of animals, i.e., *the number of terms is too small*.”⁷⁸ What Lorenz notes about emotion appears to hold for the mental lives of animals generally: dependence on human language, concepts, and experiential perspective distorts, perhaps unavoidably, our appreciation of

animal mentality. What is needed is a radicalization of our understanding of animals to overcome the tendency to attribute overly sophisticated cognitive abilities to them.

Addressing a related concern, Nagel concludes his essay “What is it like to be a bat?” with the suggestion that the solution to the mind-body problem may depend on the devising of new concepts that are themselves neither mental nor physical. This has important implications for the endeavor to conceptualize animal experience. We need to devise a vocabulary that both dispenses with the anthropocentric language of linguistic intentionality and avoids the traditional tendency to reduce animals to unconscious machines. In the twentieth century, one thinker did more than any other to contribute to the possibility of developing such a vocabulary. The great Soviet psychologist Lev Vygotsky’s experimental and theoretical explorations of the relationship between thought and language help explain both why it is unreasonable to attribute conceptual ability to most if not all animals and how we might develop a notion of associations or “complexes” that is central to our conceptualization of animal consciousness

Vygotsky published *Thought and Language* (literally “thought and speech”) in 1934. His central concern is the relationship between the development of linguistic competence and the development of thought in human beings. Drawing on the research of Piaget, Stern, and Claparède as well as on his own extensive experimental work, Vygotsky argues that the capacities for language and thought are not inherently interrelated.⁷⁹ At first, each pursues a course of development independent of the other. Thus the development of thought has a prelinguistic phase and the development of speech a preintellectual phase.⁸⁰ But at certain crucial junctures, their paths of development cross and mutually inform one another. At one of these crucial junctures, around the age of two, speech is first marshaled to express thoughts; at another, which occurs at the onset of puberty, human beings develop the capacity to form abstract concepts. Conceptual capacity is the product of a long developmental process, and it depends fundamentally on the use of words.⁸¹ One consequence of Vygotsky’s analysis is that only beings capable of linguistic signification are capable of truly abstract thought; another is that even healthy, intelligent human beings are incapable of such thought until puberty.⁸²

The latter conclusion is particularly counterintuitive. How can children and adults effectively communicate with one another, and how can children engage in acts of apparent generalization, if preadolescent hu-

mans are incapable of conceptual abstraction? Vygotsky's answers to these questions are outdated in certain respects as regards language development in humans, but they nonetheless shed light on the differences between human beings and animals. According to Vygotsky, the basis for child-adult communication as well as for the limitations of such communication lies in the fact that "the child's and the adult's words coincide in their referents but not in their meanings."⁸³ "In the dialogue between child and adult . . . both of them may refer to the same object, but each will think of it in a fundamentally different framework. The child's framework is purely situational, with the word tied to something concrete, whereas the adult's framework is conceptual. . . . Mental acts based on the child's speech do not coincide with the mental acts of the adult, even if they are uttering one and the same word."⁸⁴ Prior to the acquisition of abstract concepts, the mental processes of the child are characterized by "complex" thinking. Thinking in complexes enables children to group or associate different particular objects in virtue of perceived similarities, commonalities, or relationships. Vygotsky identifies five types of complex: associations, collections, diffuse complexes, chain complexes, and pseudoconcepts. Each is "first and foremost a concrete grouping of objects connected by factual bonds. . . . The bonds that create it, as well as the bonds that it helps to create, lack logical unity; they may be of many different kinds." This distinguishes complexes from concepts: "While a concept groups objects according to one attribute, the bonds relating the elements of a complex to the whole and to one another may be as diverse as the contacts and relations of the elements are in reality."⁸⁵ In a complex there is no "hierarchical organization of the relations between different traits of the object. All attributes are functionally equal."⁸⁶ A child is able to form complex associations between objects without being able to order them in a logically coherent manner, because "he masters syntax of speech before syntax of thought. Piaget argues that grammar develops before logic and that the child learns relatively late the mental operations corresponding to the verbal forms he has been using for a long time."⁸⁷

Of the different forms of complex, the pseudocomplex comes the closest to true conceptual generalization. But even the pseudoconcept falls short of genuine abstraction, because it is "only an associative complex limited to a certain kind of perceptual bond" based on a "concrete, visible likeness."⁸⁸ For example, when an individual is presented with a yellow triangle and is asked to pick out all the triangles in an array, the selec-

tion process can be based on a concept or on a concrete image. That an adult and a child may make the same selection simply obscures the fact that a fundamentally different thought process is going on in each. "The functional equivalence between complex and concept" has "led to the false assumption that all forms of adult intellectual activity are already present in embryo in the child's thinking and that no drastic change occurs at the age of puberty."⁸⁹

Even though the pseudoconcept is fundamentally different than a concept, it "serves as a connecting link between thinking in complexes and thinking in concepts. It is dual in nature: a complex already carrying the germinating seed of a concept."⁹⁰ But for a child to develop the capacity for conceptual abstraction, two conditions must be met. First, as in the development of consciousness generally, practical needs must be encountered whose satisfaction demands the formation of abstractions.⁹¹ Second, symbolic communication must be involved for "the germinating seed" to mature into a genuine abstraction. "It is a functional use of the word, or any other sign, as means of focusing one's attention, selecting distinctive features and analyzing and synthesizing them, that plays a central role in concept formation. . . . Real concepts are impossible without words, and thinking in concepts does not exist beyond verbal thinking. That is why the central moment in concept formation, and its generative cause, is a specific use of words as functional 'tools.'"⁹²

Because the child's pseudoconcepts "already coincide in content with adult concepts," the transition to conceptual thought occurs without being noticed; "the child begins to operate with concepts, to practice conceptual thinking, before he is clearly aware of the nature of these operations."⁹³ The functional equivalence of the child's pseudoconcepts and the adult's concepts, together with the fact that child and adult communicate with a shared vocabulary, conceals the fact that the thinking processes of the child and the adult are quite different from one another. The underlying difference between the thought processes of children and adults does a great deal to help account for the reasons why children are incapable of the same levels of comprehension and responsibility as adults: The thought processes of children involve some capacity for generalization, but they fall short of genuine abstraction. A key consequence of this limitation is that the judgments that children make are fundamentally more primitive than those possible for adults. The mental lives of children are tied to concrete particulars in experience, whereas adults are capable of transcending these particulars in acts of cognitive-linguistic abstraction.

The child's capacity to make judgments depends on forms of complex thinking, such as pseudoconcepts, that have been ramified through language. Given that the child "masters syntax of speech before syntax of thought," the functional equivalence between the "judgments" of children and those of adults should not mislead us into supposing that children possess the full intentional agency of adults. The thought processes at work in each are of a fundamentally different nature.

Vygotsky's claim about a fundamental difference between intellect in children and adults has important implications for understanding the mental lives of animals. Drawing on the research of Köhler, Bühler, and Yerkes, Vygotsky notes that language establishes the key difference between the thinking of human beings and animals. Intellect in animals "is in no way related to language," and the "language" of the chimpanzee "functions apart from its intellect."⁹⁴ The crucial points of intersection between thought and language that give rise to conceptualization in human beings are absent, on Vygotsky's view, even in higher primates. As a result, the "language" of chimpanzees is fundamentally different than mature human language, in that its "phonetics is entirely 'subjective', and can only express emotions, never designate or describe objects. . . . The gestures and mimics of apes do not bear any objective reference; i.e., they do not carry out a function of signification."⁹⁵ An excellent occasion for testing these claims is provided by the current state of knowledge about vervet alarm calls, discussed above. If vervets have distinct alarm calls that enable their companions to identify the type of predator (martial eagle, predatory mammal, or python), does this not confirm that the calls are more than mere subjective expressions of emotions, that the calls do designate objects?

When Vygotsky wrote *Thought and Language*, some key facts about animal communication, such as the versatility of vervet alarm calls and the ability of some apes to master some symbolic communication, were unknown. Thus it is not surprising to encounter Vygotsky's blunt assertion that "not a hint of [chimpanzees'] using signs has ever been heard of."⁹⁶ Nor is his claim that, in problem-solving tasks with tools, "even the best tool for a given problem is lost on the chimpanzee if it cannot see it simultaneously or quasi-simultaneously with the goal," a claim that is disproved by Sue Savage-Rumbaugh's work with the chimpanzees Sherman and Austin, who cooperatively solve problems that require the use of tools that are not immediately present to the chimpanzees.⁹⁷ Vygotsky is on more solid ground when he observes that the linguistic utterances of

animals are overwhelmingly if not exclusively “affective vocal reactions, more or less differentiated and to some degree connected, in a conditional-reflex fashion, with stimuli related to feeding or other vital situations: a strictly emotional language.”⁹⁸ While the linguistic abilities of apes and the alarm calls of vervets are more sophisticated than this account allows, these instances are the exception rather than the rule in the animal world. There is no evidence that the linguistic abilities of these apes are indicative of the linguistic abilities of most other animals; at best these cases show how difficult it is to draw a sharp line of demarcation between the “human” and the “nonhuman.” Moreover, little in the annals of contemporary cognitive ethology lends support to the hypothesis that any but the most sophisticated primates employ concepts in their cognitive encounters with the world. Nor is there any clear reason to suppose that the question whether animals can employ concepts or master linguistic phenomena such as syntax has any *moral* significance whatsoever.⁹⁹

These limitations in the linguistic abilities of animals suggest that intellect in animals—at least that of the vast majority of animals—is fundamentally different than the intellect of adult humans. Vygotsky’s contention that animals never “reach the stage of objective representation in any of their activities” seems plausible for most animals except the higher primates.¹⁰⁰ Animals engage in complex thinking, the principal function of which “is to establish bonds and relations.” At its most sophisticated level, the complex thinking of animals even includes the formation of “potential concepts,” which are formed by “grouping [different perceived objects] on the basis of a single attribute—e.g., only round objects or only flat ones.” Potential concepts, however, are not genuine abstractions; “being a precursor of intellectual judgment, the potential concept by itself bears no sign of intelligence.” In this connection, Vygotsky notes that “even hens can be trained to respond to one distinct attribute in different objects, such as color or shape. . . . There is no necessity to assume any involvement of logical processes in order to account for the use of potential concepts.”¹⁰¹ Even in human children, the relation between a word and its meaning is at first simply an associative one, that is, the child’s “first words are potential concepts indeed—they have a potential to become concepts, but this potential is still idle in them.”¹⁰²

Here the crucial difference between verbal and nonverbal beings becomes apparent. For complex thinking to make the transition from associative relations to genuine conceptual abstraction, words or com-

parable linguistic symbols must be employed. "The decisive role in this process [of concept formation] . . . is played by the word, deliberately used to direct all the subprocesses of advanced concept formation."¹⁰³ Only in conjunction with symbolic language is it possible to transcend the concrete particulars of experience and to enter the world of specifically verbal thinking, which differs in kind from complex thinking. Only in the realm of verbal thinking are such uniquely human phenomena as inner speech possible.¹⁰⁴ In nonverbal beings, by contrast, the transcendence of concrete particulars, and hence capacities such as intellectual judgment, are impossible. Examples such as vervet alarm calls or the dog barking up the wrong tree require no appeal to judgment or intentional states such as beliefs; they are fully explicable through appeal to complex thinking alone, without any verbal component.

Moreover, the fact that complex thinking in human beings is augmented by the play of language suggests that complex thought in nonverbal beings is functionally equivalent to that in humans, but that it is nonetheless qualitatively different. Vygotsky says that "from our point of view, there is an essential difference between naturally biologically grounded intelligence and historically developed human intelligence."¹⁰⁵ A main focal point for Vygotsky in the exploration of this thesis is the role of formal education in the development of human concepts and mental life. One of his key conclusions is that "verbal thought is not an innate, natural form of behavior, but is determined by a historico-cultural process and has specific properties and laws that cannot be found in the natural forms of thought and speech."¹⁰⁶ The lack of such a historico-cultural process in animals (leaving aside those few apes who have been partially indoctrinated into the cultural processes of symbolic language in experimental conditions) makes capacities such as intellectual judgment and intentionality impossible. The fact that animals exhibit some capacities that are functionally equivalent to human intelligence tends to conceal the basic differences between animal and human consciousness. The decisive point is that the consciousness of animals lacks the historico-cultural sense that serves as the foundation for the formation of specifically verbal intelligence. Thus to assume, as Nussbaum and others have done, that purposiveness in animals is a clear sign of their capacities for predication, intentionality, and self-awareness is hasty. Vygotsky's analysis gives us a way of conceiving of animal experience as driven by a sophisticated ability to make associations between experiences that is independent of conceptual abstraction. This makes it possible to account for the purpo-

sive conduct of animals without attributing to them the formal apparatus of language and intentionality.

One of Vygotsky's most controversial claims is that language capacity in human beings is not innate. Another is that language ability is initially the ability to form associations between particulars. Both of these ideas have been refuted by Noam Chomsky, whose ideas on language provide a way to correct Vygotsky's views. According to Chomsky, language is a "biologically isolated" capacity that is more than the capacity to make associations.¹⁰⁷ Human beings possess "an innate representation of universal grammar" that serves as the basis for initiation into particular natural languages such as English or French.¹⁰⁸ Moreover, language in this sense is unique to human beings. Chomsky argues that "it is conceivable, but not very likely" that "other organisms [possess] faculties closely analogous to the human language capacity"; the discovery of language capacity in nonhuman animals "would constitute a kind of biological miracle, rather similar to the discovery, on some unexplored island of a species of bird that had never thought to fly until instructed to do so through human intervention."¹⁰⁹ The symbolic communication systems taught to apes "have only the most superficial resemblance to human language"; higher apes "apparently lack the capacity to develop even the rudiments of the computational structure of human language," though they "nevertheless may command parts of the conceptual structure" of human language.¹¹⁰ In short, "there is no serious reason today to challenge the Cartesian view that the ability to use linguistic signs to express freely formed thoughts marks 'the true distinction between man and animal.'"¹¹¹

In the light of Chomsky's views, Vygotsky's picture of human language acquisition needs to be revised so as to admit the possibility of conceptual ability in human children. In other respects, however, Chomsky's views serve to clarify Vygotsky's conception of the fundamental differences between human beings and animals. The full possession of concept-based linguistic ability is unique to human beings. Animals, with the possible exception of extremely high-functioning species, are capable of making associations of differing levels of complexity between particulars. On this view, animals possess "linguistic" abilities much like those attributed by Vygotsky to young children, whereas human beings are capable of the conceptual abstraction that forms the basis of self-understanding, comprehension of the distant future, and comparably complex objects of understanding. Thus the Cartesian view that the capacities for language and abstract reason fundamentally distinguish human beings from ani-

mals would be correct, but the Cartesian conclusion that the lack of linguistic and rational abilities in animals deprives them of all moral worth would not follow.

Prospects for Overcoming Anthropocentrism

Vygotsky's reflections on human and animal intelligence make a tremendous if heretofore unrecognized contribution to the endeavor to conceptualize the mental lives and capacities of animals. His research helps us to understand why contemporary attempts to attribute intentionality and conceptual ability to animals are misguided, and how we might begin to rethink the nature of animal experience in terms of complex associations that are devoid of intellectual logical judgment. In the light of Vygotsky's work and the reflections of contemporary philosophers such as Davidson, the central problems that beset current debates about animals become clear: The leading advocates of the moral status of animals focus on the wrong capacities, or—to state the point more precisely—they mischaracterize animal capacities by unduly anthropomorphizing them. The anthropocentrism of these contemporary approaches is evident in the fact that their exponents describe the experience of animals from a markedly human standpoint, as when Griffin describes the pigeon as thinking “pecking this thing gets me food” or bees as employing concepts in executing or interpreting the bee dance. By opening the prospect that animals relate to their environments in complex ways that are ultimately unlike human ways of relating (because uninformed by verbal language), Vygotsky enables us to acknowledge a richness to animal awareness that we will never fully grasp, and to which we will completely fail to do justice as long as we adhere to anthropomorphic categories such as intentionality. Once we acknowledge a richness to animal experience that defies categorization in terms of anthropomorphic categories, and once we abandon the effort to attribute to animals the most sophisticated sorts of cognitive functioning that we find in ourselves, we can seriously raise the question whether these sorts of functioning are morally relevant in the first place.

It is in this connection that a careful examination of conceptions of animals and their moral status in the history of Western philosophy is needed. Too often, contemporary philosophers discuss animals without any apparent awareness of the long tradition of thinking about animals, their capacities, and the question of the relevance of capacities to moral

status. Some of the most insightful and sophisticated discussions of animals are those of Greco-Roman antiquity. The earliest texts bearing on animals exhibit sensitivity to the fundamental kinship between humans and animals, and the most influential philosophers in antiquity show a remarkable knowledge of the capacities of animals. But in Greco-Roman times there was also a fundamental shift in thinking about animals, away from a sense of kinship and toward a capacities-based approach according to which animals were denigrated in relation to human beings. Starting in late antiquity, defenses of animals became based on capacities as well. Subsequent thinkers about animals, through the Middle Ages and into modernity, adhered to and progressively modified the capacities approach, first under the influence of Christianity and later under the influence of Cartesian dualism. This entire trajectory of thinking culminates in the confusions and misconceptions that characterize contemporary debates about animals.

I examine the history of Western thinking about animals to help clarify the contemporary debates, both by showing how the great philosophers conceptualize the experience and the moral status of animals, and by showing that the basis for an edified view of animals and their moral status is contained in this tradition. By focusing on the historical development of thinking about animals, one can understand the sources of our own anthropocentric prejudices and use that history as the basis for a radical rethinking of the moral status of animals. The historical study that follows extends from Hesiod to Heidegger and shows both the dominant views and the recurrence of heterodox voices in the tradition. My goal is not to be exhaustive, but to exhibit the essential thread that connects all Western philosophers with the epic and pre-Socratic thinkers.