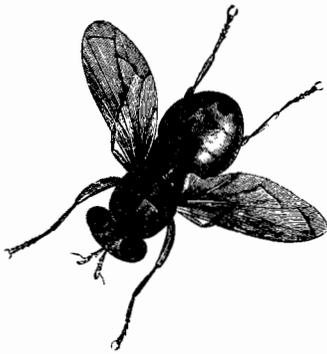


# Contracts with Animals: Lucretius, *De Rerum Natura*

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Modern philosophers interested in the moral status of animals frequently debate the possibility of extending justice to animals through a theory of social contract, with Rawl's theory usually providing the basis of discussion. Contractualism was, of course, also an interest of ancient philosophers, particularly the Epicureans, who believed that "pleasure," defined as "freedom from anxiety," was the *summum bonum* and that this "pleasure" was dependent, in part, on human willingness to form contracts with one another. In this paper, I will propose that the Roman poet/philosopher Lucretius develops an ethical theory that "pleasure" is also achieved by forming contracts with some non-human species and by physically separating ourselves from other species. I will then examine a passage in the *De Rerum Natura* where Lucretius demonstrates that humans cause anxiety and distress for themselves when they violate these arrangements.

Lucretius is often dismissed by philosophers as simply the didactic poet whose contributions to the western philosophic tradition lie not in any originality of thought, but rather in his ability to make the teachings of the Garden accessible to a wider audience than the challenging Greek texts of the master Epicurus might

attract. And indeed there can be no question about Lucretius' skillfulness in "honey-coating" the medicine of the philosophy of materialism.<sup>1</sup> His use of *exempla* drawn from the natural world continues even today to delight, to instruct, and to seduce his readers into an understanding of difficult theories. For instance, the verbal image of fleecy sheep grazing on a far-off hillside (2.317-322) makes readily comprehensible the concept of the invisibility of the individual moving atom. In his use of such *exempla* from the natural world, Lucretius is, of course, doing more than simply making palatable the principles of Epicurean *physics* by offering familiar situations as proofs for the scientific arguments; he is also implicitly instructing his readers in the methodology of Epicurean *logic* by encouraging them, first, to accept the validity of sense perception as the basis for exploring our universe and, second, to abstract from the perceived world to the unperceived world. In the didacticism of Lucretius, philosophic and poetic purposes converge, and the union is so seamless that we cannot justly evaluate the originality of his contributions to the philosophic tradition without analyzing the literary aspects of the poem. Lucretius' presentation of Epicurean *ethics* is especially dependent on a complex interweaving of poetic elements, such as recurring images, metaphors and verbal motifs. Of particular interest to philosophers tracing the history of human thought about our relationships with other



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species are the many descriptions of animals. Although at first glance these passages may appear to be “honey-coating,” that is, literary embellishments to the philosophical arguments, or even digressions interrupting the philosophical arguments, in fact they serve to enrich and expand our comprehension of Lucretius’ fundamental ethical thesis: that true happiness can be achieved only by freeing oneself from mental disturbance.

In Book 5 of *De Rerum Natura*, Lucretius discusses the creation of our world from the eternal movement of indestructible atoms. In the final third of this book (5.925-1457), he concentrates his attention on the development of human society and culture, and here we find his most extended account of humankind’s changing interactions with other animals. At 5.925 ff., Lucretius informs us that the earliest humans were tough and solitary individuals who “lived out their lives in the manner of roving wild animals” (5.932). They used neither fire nor clothing, they were satisfied with food gained by hunting and foraging, and they were content with bushes and caves for shelter. “When night overtook them, they placed their rough, naked limbs on the ground, like bristly wild pigs, wrapping themselves up in leaves and branches” (5.969-971). Primeval humans were both hunters and hunted, sometimes, by their deaths, providing food for other species (5.990-991).

These beast-like humans obviously lacked the material comforts and physical protections of civilized society, but they also lacked its anxieties. Throughout the poem, Lucretius expresses concern that people of his own period were tortured by situations of their own making, such as war, where we manufacture death for our own species. Primitive humans endured no such self-created afflictions. They lived isolated from one another and did not engage in activities where “many thousands of men, following military banners, are led to death in a single day” (5.999-1000). Primitive man’s worries were restricted to injury and death caused by natural forces, in particular an attack from another species. Primeval existence was not, of course, a Golden Age of tranquillity. Attacks by boars and lions caused agonizing deaths for humans: “Torn by the animal’s teeth, he would fill the mountains and forests with his shrieks as he watched his own living flesh buried in a living tomb” (5.991-993). Lucretius presents a description of human life at its most bestial stage in order to establish a point of contrast, first, with the technologically advanced, but anxiety-ridden life of his

own period, and, second, with the tranquil existence which humans enjoy if they understand the nature of their relationships to other species.

A little earlier in Book 5, at 855 ff., in his discussion of the origins of animal life, Lucretius states that the species still existing at his time were those which had adapted well to their situations. Wild species survive because they are endowed with particular qualities which provide them with protection; for example, they are savage, like lions, cunning, like foxes, or swift, like deer (5.862-863).<sup>2</sup> Other species, perhaps less well-endowed, such as sheep, cattle, horses, and dogs, sought the protection of humans, and, in a mutually beneficial arrangement, they provide us with meat, dairy products, wool or labor in return for readily-available food and safety from predators. In his account of this process, Lucretius has stated a theory recently iterated by Stephen Budiansky: that domestication is a natural occurrence and that some species choose to move in and cooperate with one another.<sup>3</sup> As Lucretius describes the process, humans did not forcibly create barnyards; rather, certain species entrusted themselves to our custody or guardianship (*tutela*, 5.861 and 867)<sup>4</sup> and we accepted the responsibility because of their usefulness to us (*utilitas*, 5.860, 870, 873).<sup>5</sup> These domestic species have formed with us what Desmond Morris calls “the animal contract,” a tacit understanding that cooperation between the species would be mutually expedient.<sup>6</sup> For each species, the contract offered *securitas*, “freedom from anxiety,” and thus Epicurean “pleasure.”<sup>7</sup> The contract permitted the development of agriculture which, in turn, moved humankind from a brutish existence to the prosperity and safety of a human community. The progress of our civilization has therefore depended on the willingness of other species to choose domestication and to enter into alliances with us. The benefits to humankind are enormous, but the benefits to the other species are dependent on human willingness to fulfill our part of the “animal contract,” our tacit agreement to provide security for them even as they offer us the security of a stable food supply. Our promise of security is not a promise of a long life, but of a “secure,” anxiety-free life. At 2.875-880, Lucretius describes the “food chain.” Lush pastures are transformed into cattle, which we eat and thus transform into human bodies, which, in turn, sometimes provide food for wild animals or scavenging birds. Lucretius accepts the use of herd animals for human food as a natural pattern, but nonetheless believes that we owe them, as well as

working dogs and horses, security from hunger, thirst and predators. In exchange for their products and services, we have agreed to free them from fear.

The relevance of 5.855-877 to Epicurean theories of justice is significant. Epicurus taught that justice was an agreement among humans not to harm or be harmed.<sup>8</sup> He did not consider it a natural element of the human character or a transcendent norm, but rather a prudent invention to provide that security, or freedom from disturbance, which constituted true pleasure and which was impossible when human beings preyed on one another. Justice was thus rigidly subordinated to demands of personal security and would have no existence if security could be acquired without it. Epicurus believed that animals (and some humans) were incapable of making agreements not to harm or be harmed and therefore of being included under definitions of justice or injustice.<sup>9</sup> Epicurus' successor, Hermarchus, elaborated on this aspect of Epicurus' theory of justice by remarking that it would have been advantageous for humans to extend justice to other animals by participating in contracts with them in order to increase our own security, but such contracts were impossible because animals do not possess reason.<sup>10</sup> Yet despite the apparent denial of "animal contracts" by Epicurus and Hermarchus, in 5.860 ff. of Lucretius' poem, we read about a pattern of contract formation between humans and animals which resembles the human-human contracts described by Epicurus, and by Lucretius at 5.1019-1020, in the sense that the impulse for cooperation was a calculation of expediency. The sheep, cattle, horses, and dogs of 5.860 ff. empirically determined that existence within a human society was more secure than existence without, even as the humans of 5.1011 ff. empirically determined, first, that family life and, then, that community life defined by a mutual covenant of non-aggression<sup>11</sup> provided a better chance for survival of both the individual and the species than the isolated existence of the earliest humans.<sup>12</sup> There are, of course, important differences between the human-human and human-animal contracts described by Lucretius. The human-human covenants of 5.1019-1020, which laid the foundation for social life, were mutual non-aggression pacts among men of similar capabilities not to harm one another or the weaker members of the community. If the lions and boars of 5.862 and 985 had formed covenants with humans, the terms would have been similar.<sup>13</sup> The human-animal contracts of 5.864-870, however, were tacit agreements

to swap goods and services: food and protection from predators in exchange for meat, milk, wool, and labor, *tutela* for *utilitas*. Humans are portrayed as the stronger party in the agreement because they can serve as protectors, but quite clearly they assume that an agreement exists, that it involves a swap, and that they can expect a return for their efforts. The basis of the agreement for both parties is the anticipation of benefits. Thus, if Lucretius is stating, as I think he is, that certain species did in fact form tacit contracts with humans and that these contracts were motivated by a desire for security on each side, then any violation of the contract and failure on the human side to provide security would constitute unjust treatment.

For Lucretius, the utility of animals to humans lies in their participation in a broad range of activities which assure a regular and ample food supply. And, although the dogs and horses may sometimes have assisted in hunting expeditions, for the most part, these activities fall under the category of agriculture. Lucretius does not provide a relative chronology for the origins of human covenants with other humans and with other animals, both of which led to stable and prosperous agricultural communities, but presumably he believed that the developments were parallel occurrences, each affecting the success of the other. Moreover, he surely considered these developments to be positive because a dependable food supply would foster the desired peace of mind, the Epicurean "pleasure."<sup>14</sup> Indeed, the emphasis in Lucretius' description of the discovery of plant cultivation (5.1361-78) is on the pleasure produced by the mere sight of carefully ordered croplands and orchards, a sight which bears witness to humankind's empirically developed ability to make plants produce food in abundance. In this description of humankind's successes as a cultivator, it is Lucretius' poetic devices, particularly his choice and placement of words, which impart the ethical message that there is pleasure and therefore "good" in encouraging fruitfulness. The farmland is "delightful" (*dulcis*, 1367), the grain fields and vineyards are "luxuriant" (*laeta*, 1372) and the orchards are "fruitful" (*felicibus*, 1378).

Here we are reminded of the opening of the poem, the invocation to Venus, who is an allegory both for the fertility of creative nature and for the pleasure which this fertility brings: "O nurturing Venus, *pleasure* of men and gods" (*hominum divumque voluptas/alma Venus*, 1.1 and 2). The advent of Venus brings light and life, fragrant flowers, green meadows and "luxuriant

pastures" (*pabula laeta*, 1.15) in which domesticated herds frolic. Lucretius urges Venus to lull to rest Mars, an allegory of war, destruction and death.<sup>15</sup> Thus, at the very beginning of his poem, Lucretius establishes a dichotomy: creation/pleasure vs. destruction/anxiety.<sup>16</sup> Poetic images instruct us that the human cultivation of plants and husbandry of animals is a participation in the creative processes of nature (*natura creatrix*, 5.1362) and a source of true pleasure. Lucretius repeats several times in the poem the joyful image of pastures and domesticated flocks which appears first in the invocation to Venus. At 1.257-261, for example, he describes herd animals, with their udders full of milk, resting in "luxuriant pastures" (*pabula laeta*, 257), while their young offspring play in the tender grass. The poetry seduces the reader by evoking recall of a situation which is pleasurable: the sight of secure and fertile domestic animals. The logical function of this passage is to explicate a principle of Epicurean physics: that nothing is ever reduced to nothing, but rather every compound eventually dissolves into atoms from which new compounds are created.<sup>17</sup> Yet this passage also reinforces an element of Epicurean ethics by developing the poetic motif that domestication is a source of pleasure for humans. A similar duality of didactic purpose occurs at 2.317-322, a passage mentioned earlier in this paper. Here Lucretius uses an *exemplum* of sheep in "luxuriant pastures" (*pabula laeta*, 317) with their well-fed lambs to elucidate his comments about the invisibility of the movement of atoms, but again the poetic imagery underlines also the ethical point that domestication brings pleasure. Such images remind us that agriculture offers the security of a dependable food supply and thus the pleasure of a secure mind. In contrast, the pre-agricultural humans described in 5.925 ff., although free of self-imposed anxieties such as war and religion, were disturbed by concerns about the uncertainty of their food supply and about the dangers inherent in obtaining food.

If we were to locate a Golden Age in Lucretius' narrative of human history, it would be a period when the development of communities provided a security unknown to primitive individuals, but where human inventiveness had not yet turned its attention to the manufacture of artificial terrors. Humankind's best opportunity for peace of mind is therefore an ideal agricultural community, an Epicurean Garden perhaps, where the regular and orderly rhythms of plant cultivation and animal husbandry protect inhabitants

from anxiety about physical necessities. In this Garden, security is maintained by cooperative efforts to repel "non-contract" animals, like lions, boars, foxes and deer, which devour human food (or humans!) without offering compensation, while "contract" animals fulfill their obligations to provide labor, food and wool.<sup>18</sup> However Lucretius suggests that humans have at times failed to fulfill their part of the contract and he correlates human violations of the contract with our incorrect judgments about the sources of pleasure and happiness.

Within his general outline of the development of human society in Book 5, Lucretius notes that man's earliest weapons were his own hands and teeth (man at his most beast-like), then tools such as stones and branches, and finally metal implements (5.1283-1286). He then reminds us, at 5.1289-1292, that copper and iron could be utilized for both agriculture and war.<sup>19</sup> "With copper they worked the soil; with copper they stirred the billowing waves of war, and scattered devastating wounds. And they seized herds and fields. Everything else, naked and unarmed, readily fell prey to them, since they were armed." Here Lucretius uses metaphors to press his points. The Latin verb *serere*, translated by "scattered," denotes the process of sowing, as in sowing a field with seeds. In Lucretius, however, warriors sow wounds. In their actions, they are like farmers, but, in their results, quite the opposite: farmers scatter life, warriors scatter death. The contrast between agriculture and war continues: farmers protect herds and fields, warriors destroy them. And, with the technology for metal weapons, the armed warrior easily dominates all the unarmed creatures whose way of life his cave-dwelling ancestors once shared.

For Lucretius, the invention of metal-working was a mixed blessing, allowing advancement in the life-giving activities of agriculture, but also producing new ways of death. The topic of non-animate implements of war leads him to the topic of animate implements and, at 5.1297, he begins a discussion about the employment of animals for warfare, claiming that the first animals which people took to the battlefield were horses, used as mounts for warriors and, later, as draught animals to pull chariots. Lucretius then notes, at 5.1302-1304, that the Carthaginians successfully "trained elephants to endure the agonies of war." Since that time, he observes, humankind's "woeful inability to cooperate has given birth to one invention after another" which terrifies human warriors and adds to the horrors of war, day in and day out. For example, Lucretius writes at 5.1308

ff., people tried to use bulls, boars and lions as animate implements of war. The experiments were unsuccessful because these animals could not be trained to be steady, obedient companions. Panic-stricken by the carnage of battle, the lions leapt at friend and foe alike, the bulls trampled their trainers and the boars gored them with their tusks. The result of these experiments was utter chaos, as the animals attacked one another, screamed in pain and ran in frenzied disorder on the battlefield. It is important to notice that, in 5.1308-1310, Lucretius traces the development of empirically determined concepts by depicting a series of experiments which led up to the disastrous battle, experiments which progressed from using contract animals as mounts, to using contract animals as offensive weapons, and then to using non-contract animals as offensive weapons: "After their success with horses and elephants, men tried (*temptarunt*) bulls in battle; and they tried (*experti sunt*) to send boars against the enemy; and some sent lions in the front rank."<sup>20</sup>

The animals-in-warfare passage functions, however, as more than a narrative element in the history of human progress. It also serves in the development of Lucretius' theme that humans are responsible for much of their own anxiety and, more particularly, that they themselves suffer when they violate the human-animal contract, abuse animals and ignore the patterns of nature. With the invention of metal implements which enabled humans to overpower everything that was naked and unarmed (5.1292), two courses of action were now possible: 1. creation of a Garden where several species interacted peacefully and metal was used both for implements like ploughs pulled by contract animals, and also for weapons to protect the Garden from non-contract animals, and 2. utilization of metal weapons to seize the herds and fields of others, thus inviting retaliatory violence and initiating an "arms race" in which ultimately both contract and non-contract animals were employed as machines of war. The former course promotes creation and therefore pleasure; the latter invites destruction and therefore anxiety. Lucretius does not, however, explicitly recommend that we make a choice between antithetical options; instead he guides us to the correct decision by expanding his presentation of the horrible consequences of devoting human inventiveness to methods of destruction. The terrifying description of the battle scene in which several species, including humans, are killing and being killed in a hideous manner is Lucretius' culminating statement of

why war must be avoided. His poetic imagery instructs us as forcefully as any prose treatise on ethics could that human military ambitions destroy the orderly and peaceful rhythms of the Garden, and simply return humans to the cave, to that level of primitivism from which, in other respects and with other inventions, they had advanced. It is particularly significant that Lucretius chose to depict not just humans in conflict with one another, but several species brought into indiscriminate combat because of human failure to comprehend the basis of true pleasure. Once again, references to human interactions with other species illuminate a central ethical thesis.

The adjective "savage" (*saevus*) is used three times in 5.1309-1314, once of the boars (*sues saevos*, 1309), once of the lions (*leones saevi*, 1310-1314), and once of the humans (*saevis magistris*, "savage handlers," 1311). The repetition of the adjective draws together boars, lions, and humans as agents in a portrait of frenzied slaughter.<sup>21</sup> The humans are also called "armed trainers" (*doctoribus armatis*) in 1311. The juxtaposition of the nouns *magistri* and *doctores* with the adjectives *saevi* and *armati* is jarring. The nouns *magistri* and *doctores* denote people who have acquired knowledge and have mastered skills, people who could use their knowledge and skills to lead others away from violence and warfare and toward increased security and pleasure.<sup>22</sup> The greatest of teachers, Epicurus, developed a philosophy whose "delightful solaces soothed (*permulcent*) human minds" (5.21). But the teachers of 5.1311 are "savage" and "armed," and spend their efforts on experiments which only intensify human anxieties. The movement away from the Garden is clearly defined in this section of the poem. The "armed" trainers were unable to control the movements of the bulls, boars and lions, and the horsemen were unable to soothe (*mulcere*, 5.1317) the terrified spirits of the horses. This passage impresses upon us the insanity of forcing animals into situations unnatural to them. Our earliest war animals, the horses mentioned at 5.1297 ff., had a contract with us: labor in return for food and protection from savage animals. Yet we violated the contract and put them on a battlefield with these same savage animals. Having ourselves regressed to savagery, we erased the boundaries between contract and non-contract animals which had permitted the expansion of peaceful and creative activities. The horses had entrusted themselves to our care because they wanted peace (5.868-869: *pacem secuta sunt*). They were willing to labor for us in exchange for security,

but we used their labor in warfare, where they were forced to endure pain, where their flanks and bellies were gored (5.1324). The bulls, another domesticated species and therefore “under contract,” were also forced into a situation where they became panic-stricken, and trampled their handlers underfoot and gored the horses. Even the animals which the human handlers had considered to be sufficiently trained at home became frenzied by the tumult, noise and pain of battle. Thus humankind, whose progress from primitivism could be marked by its ability to ease the fears of animals and then train them for agricultural use, became a “wilder” of beasts, forcing them back into situations from which their wild ancestors had originally sought the protection of humans. Clearly, the breach of contract, which the abuse of domestic animals implies, causes horrifying chaos and a clear regression from people’s productive coexistence with other animals in the Garden.

And what of the boars and lions? They had long threatened human life, and humankind had formed no contracts with them. Indeed people had deliberately kept their distance, avoiding the areas in which those animals lived and gathering into their Garden only those species with which they could form contracts. And yet, in order to enhance their military capabilities, people were willing to experiment with an unnatural alliance and to attempt to train randomly savage animals to be savage on command. The boars and lions, of course, would have no part of such an alliance. On the battlefield, they acted true to nature, attacking other species and the people who had brought them there. Thus humankind, by its arrogant and insane refusal to observe the patterns of nature, had ironically engineered its own destruction by those very same animals whose unexpected attacks humankind’s earliest ancestors had tried to avoid.

To sum up: through poetic imagery and thematic patterns, rather than through argument, Lucretius demonstrates that security—the Epicurean “pleasure”—is best achieved by forming mutually-beneficial contracts with some species and by separating ourselves from other species. He also suggests that the abuse of animals in warfare indicates human ignorance or contempt for the patterns of nature and that, although motivated by our desire for security/pleasure, such abuse only increases human distress.

#### Notes

<sup>1</sup> Lucretius’ comparison of himself to a doctor honey-coating a cup of bitter wormwood occurs at 1.936-950.

<sup>2</sup> At 3.741-743, Lucretius uses these same species to illustrate the inheritance of qualities such as ferocity, cunning, and swiftness.

<sup>3</sup> Stephen Budiansky, *The Covenant of the Wild* (New York 1992). Budiansky argues for the co-evolution of humankind and other species, for example, at p. 165: “The domestic alliance is an evolutionary strategy of adaptive significance;... animals chose us because we were a better deal in an evolutionary sense than life in the wild.”

<sup>4</sup> The Latin noun *tutela*, used by Lucretius only here in the poem (5.861 and 867), is cognate with the verb *tutor* (“to keep safe”) and the adjective *tutus* (“safe”). *Tutela* means “defense,” “maintenance” or “care.” All three definitions are applicable in this context. In legal terminology, *tutela* means a formal power of guardianship over the affairs of someone who is unable to protect him/herself because of age or mental incapacity. In contrast to the animals who place themselves under our *tutela*, wild animals depend on their innate qualities to keep them safe.

<sup>5</sup> The Latin noun *utilitas* can be defined as “utility,” “profit,” or “advantage.”

<sup>6</sup> Desmond Morris, *The Animal Contract: Sharing the Planet* (London 1990).

<sup>7</sup> The Latin noun *securitas* and adjective *securus* are formed from *se* = “without” and *cura* = “anxiety.”

<sup>8</sup> Epicurus, *Principle Doctrines*, 6, 31, 33. Richard Sorabji, *Animal Minds and Human Morals* (Ithaca, N.Y., 1993) 162, uses the translation “to avoid causing or suffering harm” for the terms of the contract. Phillip Mitsis, *Epicurus’ Ethical Theory* (Ithaca, N.Y., 1989) 79-92, distinguishes Epicurus’ contractual theories from those of Locke or Rousseau, noting that Epicurus makes self-interest/pleasure a prior standard by which contracts themselves are justified.

<sup>9</sup> Epicurus, *Principle Doctrines*, 32. A precise translation of the Greek would be “as many of the living creatures as were not able”—which seems to leave open the question whether Epicurus believed that there were some species which could make agreements. See A.A. Long and D.N. Sedley, *The Hellenistic Philosophers* (Cambridge 1987), vol. 1, 135 and vol. 2, 129.

<sup>10</sup> Hermarchus, in Porphyrius, *On Abstinence from Animal Food* 1.12.5 and 6. Hermarchus, 1.10 and 11, believed that all species could be detrimental to human well-being: wild animals (such as lions and wolves) because they might attack and injure us and domestic animals (such as sheep and cattle) because they might, if allowed to overpopulate, consume food which we need. He therefore approved of killing all members of savage species and those members of domestic species which were excess, that is, not being used to human benefit.

Paul Vander Waerdt, "Hermarchus and the Epicurean Genealogy of Morals," *TAPA* 118 (1988) 87-106, discusses Hermarchus' opposition to Empedocles' and Theophrastus' belief that it is unjust to kill animals because a kinship exists between us and them.

<sup>11</sup> The "covenant" is defined in 5.1019 by the Latin noun *amicities*, which means "friendship" or "friendly alliance." For a discussion of Epicurean concepts of friendship and their relevance to Lucretius' history of human political systems, see J. M. Rist, "Epicurus on Friendship," *Classical Philology* 75 (1980), 121-129; also Mitsis, 98-128.

<sup>12</sup> The terms of the *amicities* ensure the security not only of the contractors, but also of their weaker dependents, their children and wives (5.1021-1023). The "animal contract" of 860 ff. does not explicitly specify protection of offspring, perhaps because even the adult animals are defined as dependents or "wards" of the humans (see footnote 4). By seeking a dependent relationship with humans, these species ensure the protection of their offspring and therefore the survival of their species, as opposed to those species mentioned by Lucretius at 5.871-877 which became extinct because they were endowed with no natural asset which would enable them either to live in the wild, or to offer an *utilitas* which might persuade us to feed them and keep them safe (*tutum*, 5.874). In arguing his case for co-evolution, Budiansky, 125 notes that the species which chose domestication have been remarkably successful at survival. "In 1860, man and domestic species accounted for 5 percent of terrestrial biomass. Today the figure is approximately 20 percent." (An animal protectionist might question whether we can use the term "successful" of species which live brief lives in factory conditions.)

<sup>13</sup> The fox and deer of 5.863 are in a different category. The threat they pose to humankind is not of aggression but of devouring our food supplies. The deer, moreover, are useful to us as food. Neither Lucretius nor Hermarchus provides an explicit distinction between predator and prey (wild animals) and between edible and inedible (domestic animals).

<sup>14</sup> 5.958-961: The food supply of primitive humans was uncertain and they were not able to give consideration to the common good. Each individual carried off for himself whatever prize fortune brought him.

<sup>15</sup> The activities of Mars also preclude the tranquillity necessary for the creative work of philosophy in which Lucretius was engaged (1. 41 and 42).

<sup>16</sup> Charles Segal, *Lucretius on Death and Anxiety* (Princeton 1990) 208 ff., discusses the dialectic in Lucretius' poem between creation/destruction, life/death, peace/war, serenity/restlessness, and philosophy/superstition. See also C.R. Beyé, "Lucretius and Progress," *Classical Journal* 58 (1963).

<sup>17</sup> 1.263-264: "Nature fashions one object from another object and allows nothing to be born except with the assistance of the death of something else." Epicurus taught that destruction (death) was as natural a process as creation, and that the continual presence of each process served to maintain a balance in the universe. Lucretius describes the life-death-life cycle at 2.576-580: "blended with the funeral lament is the wail which infants raise when they first see the light of life. Never has any night following day or any dawn following night *not* heard the mournful laments of death mingled with a newborn's cries." Yet, although Lucretius might declare with scientific insistence that death was not to be feared, his poetic celebration of life as pleasurable clearly indicates that his sympathies lie with creation.

<sup>18</sup> At 5.39-42, Lucretius asserts that wild animals, which had posed a major threat to primitive human existence, could in his day be easily avoided because they lived in inaccessible areas. His statement implies that he considered the boundaries between cultivated and uncultivated, domestic and wild, to be easily discernible. (See, however, footnote 13.)

<sup>19</sup> James Nichols, *Epicurean Political Philosophy*, 168 ff., remarks that this passage underlines the troubling, yet necessary interconnections between progress in the arts and in warfare. Lucretius realized that human curiosity and desire for prosperity were responsible for inventions which promoted peace of mind (the philosophy of Epicurus being the greatest of these inventions), but that curiosity and desire also produced developments in destructive technology. Cf. 5.1430-1435, where Lucretius laments that humans fail to recognize that there must be a limit to acquisition. Mitsis, 91, remarks that Epicurean philosophy offers "compelling hedonistic reasons" for controlling our desires rationally.

<sup>20</sup> Asmis, *Epicurus' Scientific Method* (Ithaca, N.Y., 1984) 58, comments on the animals-in-warfare passage that each discovery, from mounted horses to chariot horses to war elephants and then to bulls, lions, and boars, can be viewed as growing out of a previous one "by the application of empirically formed concepts. As in all other crafts, the adaptation of a concept to a new situation results in new observations, which may then inspire further experimentation."

<sup>21</sup> De Grummond, "On the Interpretation of *De Rerum Natura* V.1308-1349," *Atene e Roma* 26-27 (1981-82) 52, notes that *saevus* is a standing epithet for lions and boars in Lucretius, but is used directly of humans only here in the poem. He also notes that 9 of the 15 occurrences of *saevus* are in Book 5.

<sup>22</sup> The noun *doctor* is cognate with the verb *docere*, "to teach," "to train." Lucretius frequently uses the verb to describe his own activity of explicating Epicurean philosophy in Latin verse, *i.e.* 1.265, 3.31, 5.56. The noun *magister* often means "teacher."