



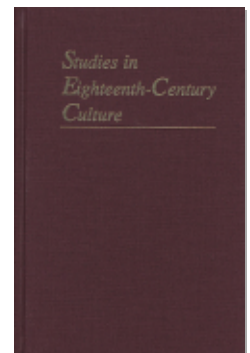
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Animal Domestication and Human-Animal Difference in Buffon's *Histoire Naturelle*

DARIO GALVÃO

One of the first texts of Georges Louis Leclerc, comte de Buffon's *Histoire Naturelle, générale et particulière*, is the "Initial Discourse" (1749), in which he presents the method one should employ when studying nature. Buffon claims that the first truth one is forced to acknowledge when undertaking a serious study of Natural History is one that is probably humiliating to mankind: that man ought to place himself within the class of animals.¹ In the same text, we also learn that classifications are the fruit of human imagination and science, and so do not belong to nature itself. In other words, when distinguishing classes or species, the result is "more of an order appropriate to our *own* nature than one pertaining to the existence of the things which we are considering."² Nature is continuous; we are the ones who introduce discontinuity. In general terms, we see here a nominalist critique of the zoological and botanical classifications proposed by naturalists such as John Ray, Carl von Linné (aka Carl Linnaeus), and Joseph Pitton de Tournefort.³

When we consider the *Histoire Naturelle* as a whole, however, we must admit that the presumed humiliation more often seems to work to the disadvantage of animals. A clue to this may be found by reflecting on Linnaeus's *Systema Naturae* published in 1735—almost fifteen years before

Buffon's work began to appear. Here, human beings are placed together with the primates, and thus for the first time in the same class; by contrast, in his long section on quadrupeds, Buffon treats primates last, after all the other animals, and they appear only in the fourteenth and fifteenth volumes of the work, published in 1766 and 1767.⁴ The reason for this may be found in his method, as presented in the "Initial Discourse": while all classifications are relative to our own nature, from the perspective of nature itself they are all, ultimately, arbitrary; in that case, if we need to establish an order, we should choose the one that best suits our own purposes. Therefore, Buffon proposes an order that is more natural and comfortable to us: that is, going from what is more interesting—because of its close relation to us—to what is more distant and less useful to our lives.

The obvious consequence is that the human being, to a large extent, is placed at the center of nature. Without losing sight of the philosophical sophistication of Buffon's method, which is intimately related to the great influence of Newtonianism in eighteenth-century France, we may nevertheless perceive a certain moral evaluation standing behind it.⁵ There is a "grading of dignity," some would say (most notably, Jacques Roger, one of the leading experts on Buffon's work), wherein humans get the first and highest place, and the nobility of every other species depends upon its proximity, or rather utility, to humankind.⁶ As Roger writes, "nature is only worthy of human attention insofar as she is useful to man."⁷ Commenting on this grading, Thierry Hoquet draws attention to its underlying epistemological character: priority is given to the more familiar species.⁸ In every case, it is human beings who take the first place. After humans come the domestic animals, and after those, the wild animals. According to Buffon, for instance, insects do not deserve as much attention as they are given by some entomologists, among which the most famous is René-Antoine Ferchault de Réaumur, who had published the six volumes of *Mémoires pour servir à l'histoire des insectes* (1734–42). The quarrel between these two naturalists is well known. Among his several attacks, Buffon writes that a bee should not take up more space in the mind of a naturalist than it takes in nature itself.⁹

Indeed, the reader quickly enough manages to overcome the risk posed by this presumed humiliation of human beings. In the volumes of the *Histoire Naturelle* published between 1749 and 1753, we find at least two important texts in which we see a strong distinction drawn between humans and animals. In the four volumes published in 1749, in addition to the "Initial Discourse," we have some texts from a more general point of view, such as the "Natural History of Animals," in which Buffon distinguishes animals from plants and describes their nutrition, generation, and development, the "Formation of Planets," and, finally, the "Natural History of Man," this

being the first text specifically focused on a particular species. In the latter text, Buffon argues that the human being has an “entirely different nature,” distinguished from and superior to animals, and that “of himself he forms a distinct class.”¹⁰

It is easy to see traces of Cartesian dualism in this text, something that becomes even more evident in “Of the Nature of Animals” (1753), where Buffon develops a theory that seems, at first glance, to be a new version of René Descartes’s notion of the animal-machine. In general terms, the distance between human and animal is seen as infinite, because while humans are “duplex” (Buffon employs the term *homo duplex*)—both spiritual and material—animals are strictly material.¹¹ As in Descartes, the spiritual principle is associated with the capacity for thinking and language.¹² From this perspective, the behavior of animals is understood as the immediate result of their physical organization; they are natural automatons or machines.

With this in mind, scholars of Buffon have rightly pointed out that, in his *Histoire Naturelle*, language and thought are the two elements that distinguish human beings from animals. For example, whereas François Dagognet, José Martínez-Contreras and Francine Markovitz refer to the Cartesian traits in Buffon’s thought, Julia Douthwaite attributes to him the “Aristotelian premise that the essence of man resides in his rational mind and not in such ‘accidental’ properties as the forms of his body.”¹³ Furthermore, Hoquet explains how all of the virtues, passions, and understandings of animals in Buffon’s *Histoire Naturelle* are strictly material, in the sense that they result from physiological processes. As Hoquet puts it: “natural history moves away from the didactic functions of the bestiary to become a physical theory of the functions of organized beings” (Avi Lifschitz opposes this idea, at least as far as concerns the elephant).¹⁴

I would like to shed light on a specific aspect of the ways in which language and thought express the human–animal difference that has not yet received its due attention. Considering Buffon’s works within a general framework of natural history, rather than metaphysics, I would like to highlight the link between the above-mentioned difference and a phenomenon that he observes as a naturalist: the historical subjugation of animals by human beings. Although our focus will be on domestication, Buffon’s writings on wild animals can help us understand that subjugation: as we will see, wild animals, just like the domestic, are victims of the same human ascendancy. Recasting the terms under discussion (previously considered to fall within the realms of philosophy and theology), Buffon establishes the difference between humans and animals from the perspective of natural history: one species rises by dominating others, or rather at the expense of others. This seems to be the real sense of what Buffon refers to as the primacy of thought over matter.

It is by the *right of conquest*, however, that he [i.e., a human being] reigns, for he rather enjoys than possesses, and it is by constant and perpetual activity and vigilance that he preserves his advantage, for if those are neglected everything languishes, changes, and returns to the absolute dominion of Nature. She resumes her power, destroys the operations of man, envelops with moss and dust his most pompous monuments, and in the progress of time entirely effaces them, leaving man to regret having lost by his negligence what his ancestors had acquired by their industry.¹⁵

Such considerations allow us to situate Buffon's thinking in relation to his contemporaries. By defining this separation between humans and animals, Buffon attempts to refute other views that equate human beings and animals, such as in the most influential empiricist doctrines, especially those of David Hume and Etienne Bonnot de Condillac. However, this does not mean that Buffon takes the opposite stance of affirming the traditional view of the animal-machine. The ascension of human beings in the *Histoire Naturelle* is not based on a refutation of animal rationality, but rather on the superiority of human rationality compared to animal rationality (a superiority that is not just a matter of degree, as the aforementioned empiricist doctrines claim).

The so-called French materialists, such as Julien Offray de La Mettrie or Denis Diderot, do not hesitate to endow animals with thought; indeed, it would seem rather necessary for them to do so, since their aim is to affirm the unity of both substances in opposition to Cartesian dualism. Matter and spirit, then, are conceived to be of one and the same nature in such a way that thought cannot be conceived independently of the body; on the contrary, it is rooted in the organic configuration. Not even the fiercest opponent to the proximity of or analogy between human and animal denied their bodily resemblances; hence, for the materialists, since thought is rooted in the body, there is no reason to refuse it to animals—they too have a body—or to deny the evidence of experience. La Mettrie, for example, in his *L'Homme machine* (1747), treats human–animal difference regarding thought as a matter of their respective complexity, much like the higher or lower level of complexity we supposedly find in animal bodies.¹⁶ From this perspective, the human condition no longer rests on a difference in kind, but rather in degree. This change in perspective can also be seen in Diderot, who at points treats the human condition as the result of a particular organization of the senses: in humans, there is an equality of the senses (touch, smell, vision, etc.) in such a way that any of them may prevail over the others, and, as a result, understanding (the “organ of reason”) may prevail.¹⁷ Whether we consider Diderot's vitalist and cosmological perspective, or La Mettrie's mechanical and medical view, the habit of separating humans from animals

via a Cartesian perspective was deeply questioned in the mid-eighteenth century.¹⁸

There was no need to be committed to the materialist thesis in order to accord thought to animals. Philosophers such as Hume and Condillac engaged in promoting what we could call a positive psychology devoted to investigating the operations of ideas and passions do not hesitate to affirm that there is a strong analogy between humans and animals. According to them, the analogy must be extended from their resemblances of body to their resemblances of mind. In his *Treatise of Human Nature* (1739–40), Hume includes sections on the reason and passions of animals. Here we find passages about dogs, horses, swans, and turkeys, among others. For example, Hume considers an old greyhound that draws inferences of cause and effect and a peacock that entertains a high idea of himself—and contempt for all others—since he is conscious of his uncommon beauty.¹⁹ In 1755, Condillac wrote his *Traité des animaux* to reject Buffon's automatism as developed in "Of the Nature of Animals." Condillac, like Hume, thinks that animal behavior must be explained through the same principles as human behavior; both are based on experimental reasoning—knowledge acquired from experience through habit—taken as a fundamental principle of the mind. Another prominent eighteenth-century figure who addressed the animal problem is Jean-Jacques Rousseau, who shifts the uniqueness of humans from their capacity for thought to their capacity for perfectibility and liberty.²⁰

In order to understand the importance of Buffon's intervention in eighteenth-century thinking about human–animal difference, the Cartesian aspects of his thought—notably the spirit–matter duality—must be set in their proper place, and that is where domestication comes in. The metaphysical and theological perspectives in Buffon must be approached through their association with another, *naturalistic* perspective, one that is more suitable to the *Histoire Naturelle*'s empiricism. That is where Buffon's contribution to the debate about human–animal difference resides.

Here is a brief overview of our next steps: first, we will consider domestication in order to see how it is related to an idea of the human conquest of nature, referring not only to domestic animals but also to wild ones. Second, we will examine some of Buffon's thoughts regarding animal intelligence in order to develop an account of the human–animal difference that emerges from his perspective on domestication.

Animal Domestication and the Conquest of Nature

In Buffon's view, few phenomena express the separation between human and animal as clearly as domestication. Through domestication, the animal itself becomes a product of human thought. Similar to the human species' use

of fire and clothing, a domestic animal is a new “thing” that is manufactured and enhanced by human rationality. Its nature is altered; it is forced away from what is natural to its species in order to conform to its master’s way of life. In this regard, Hoquet notes that “man is everywhere a monster to himself, while domestic animals are others of man’s monsters, produced by him, ... showing the power of man as the principal catalyst of change.”²¹ According to Buffon,

Man can, therefore, not only make every individual in the universe useful to his wants, but, with the aid of time, change, modify, and improve their species; and this is the greatest power he has over Nature. To have transformed a barren herb into wheat is a kind of creation, on which, however, he has no reason to pride himself, since it is only by the sweat of his brow, and reiterated culture, that he is enabled to obtain from the bosom of the earth this, and sometimes bitter, subsistence.²²

There are species that are by nature more prone than others to this type of alteration. The cat, for example, is *demie domestique*: although cats live in our homes, we “cannot say that they are ... entirely domestic animals.”²³ Resistance to domestication can be seen as the absence of a certain type of intelligence on the part of domestic animals. Whereas Buffon finds in wild animals an intelligence that is characteristic of the animal in nature—and that operates in balance with nature—he finds that domestic animals have an intelligence that favors their ability to communicate with their master, molding their behavior according to what their master expects from them.

In Buffon’s texts, domestication is at once a degeneration and an ennoblement of the animal. From a human perspective, the dog, for example, elevates himself over other animals through an uncommon capacity for learning and developing under our standards—his genius is “borrowed,” writes Buffon.²⁴ No wonder dogs are our most valuable ally in nature: without them, he states, we would never have dominated other animals as we did.²⁵ However, from the perspective of nature, this perfectibility is rather a degeneration and this too is an important element of Buffon’s conception of animal nature.²⁶ Concerning the domestic pigeon, he writes, this bird’s “slave races” are “all the more perfect to us as they are more degenerated, more flawed to Nature.”²⁷

Human influence seems to be found where least expected. Buffon observes, for instance, that dogs’ barking is for the most part the fruit of perfectibility, given that it is less frequent in wild dogs.²⁸ And, like barking, Buffon considers that even sexual desire, “that appetite which Nature has ... most deeply implanted in the animal frame,” has been changed because of

domesticity: “domestic quadrupeds and birds are almost constantly in season, while those which roam in perfect freedom are only at certain stated times stimulated by the ardour of passion.”²⁹ The natural thus gives way to qualities that are acquired through an animal’s relationship with humans, and these qualities are rarely devoid of the domination intrinsic to this relationship. It is from this perspective that we may think of the dog’s outstanding fidelity towards its master and his close relations:

More docile and tractable than any other animal, the dog is not only instructed in a very short time, but he even conforms himself to the manners, motions, and habits, of those who command him. He assumes all the modes of the family in which he lives. ... When the care of a house is committed to him during the night he becomes more bold, and sometimes perfectly ferocious; he watches, goes his rounds, scents strangers at a distance, and if they stop, or attempt to break in, he flies to oppose them, and by reiterated barking, and other efforts of passion, he gives the alarm to the family. He is equally furious against thieves as rapacious animals; he attacks, wounds, and forces from them what they were endeavouring to take away; but contented with having conquered, he will lie down upon the spoil, nor even touch it to satisfy his appetite; giving at once an example of courage, temperance, and fidelity.³⁰

The dog behaves exactly as it must in order to attend to the needs of the family. Like a little soldier, he is in charge of the house, knowing quite clearly who to attack and to whom to give passage. His disposition to conform himself to human habits unfolds as a disposition to acquire qualities that better allow him to serve humans. Buffon is far from ignoring, however, the advantages that dogs themselves draw from their submission: “faithful to man, [the dog] will always preserve a portion of his empire, and a degree of superiority over other animals; he reigns at the head of a flock, and makes himself better understood than the voice of the shepherd.”³¹

In the matter of fidelity and servility, horses are not left behind. They are very favorably placed in Buffon’s “grading of dignity,” coming first in his chapter on domestic animals as the noblest conquest of human creatures.³² With humans, for example, they share the exhaustion and pleasures of war, while their disposition to servility seems equivalent to or even stronger than that in dogs: “The horse is a creature which renounces his very being for the service of man, whose will he even knows how to anticipate, and execute by the promptitude of his movements: he gives himself up without reserve, refuses nothing, exerts himself beyond his strength, and often dies sooner than disobey.”³³ The metaphysical distinction between human and animal

is here transposed into a naturalistic version. There is a capacity for using the other to serve yourself that, in Buffon's work, is considered peculiar to humans. Yes, he writes, stronger animals "devour the weaker, but this action implies no more than an urgent necessity, or a rage of appetite; qualities very different from that which produces a series of actions, all tending to the same end."³⁴ Only humans were capable of subjugating [*prendre empire sur*] others and obliging "them to furnish their food, to watch over them, and to attend them when sick or wounded."³⁵

As we have seen, Buffon does not hesitate to use the term *empire* to describe human superiority over animals. The human being appears as the conqueror in a war against nature: while domestic animals are akin to the spoils of victory, wild ones are scattered among remote, small portions of land. The extreme precarity of wild animals was already a subject of Natural History in this period. Buffon considers it to be humanity's fault: because of humanity, wild animals are much wilder than they would be if we weren't here.³⁶ We are dangerous to them in that the more we increase our dominion on the surface of Earth, the less peace they have and, consequently, the less developed become their faculties, talents, and intelligence:

In countries, on the contrary, over which man is diffused, all society is lost among animals, all industry ceases, and every art is suppressed; they relinquish the occupation of building, and neglect every accommodation; always pressed by fear and necessity, their only study is to live, and their only employment flight and concealment; and if, as may reasonably be supposed, the whole surface of the earth should, in process of time, be equally inhabited by the human species, in a few centuries the history of a beaver would be considered as a fable.³⁷

From this passage, we are led to think that our views on wild animals must take into account human domination just as much as our ideas regarding domestic animals do. Once again, human influence over animals is found where least expected. The weight of this influence seems to be felt in every aspect of wild life, which is reduced to the satisfaction of the most basic needs, such as providing food and keeping safe from danger. From this perspective, the renowned works of beavers appear as the last ruins of an ancient animal intelligence—doomed to disappear—dating from a time when humans were not omnipresent and destroying every other species' society, industry, art, etc.³⁸

In the beginning of the chapter "Of Carnivorous Animals" (1758), Buffon makes a statement that today we would find hard to deny: that humans are, of all species, the most destructive. There is no other species that kills more

living beings than us, says Buffon—writing in a period that we would see as a green paradise in comparison to today. Perhaps, besides the augmentation of the human population, he had in mind hunting, a structural practice of the aristocracy that could kill hundreds of animals in one single day.³⁹ One must not, however, conclude that Buffon proposed a general critique of hunting. In his article on “The Stag” (1756), Buffon praises the *vénérerie*, probably the most important hunting tradition of the time in France. He was not opposed to the practice—unlike others such as Friedrich Melchior, Frieherr von Grimm, who condemned every hunt that did not have, as its end, the “feeding of man or even the pleasures of the table,” asserting that otherwise hunting would be, “under the wise man’s eyes,” no more than “the shameful and reprehensible occupation of a fool, a hundred times more savage than the animal he chases.”⁴⁰ To make hunting possible, an effective system of animal management was enacted between different estates (*domaines*), avoiding the eradication of animals where hunting was practiced; as a result, nature could seem endless.⁴¹ In this sense, Buffon’s conclusion about humanity’s destructive power seems less pertinent to our own era: according to him, we are so destructive that “we should exhaust Nature if she were not exhaustless, and by a fertility superior to our depredations, renovate the destruction we continually make”:

The faculties and talents of animals, therefore, instead of increasing are constantly diminishing, for time may be said to oppose them. The more the human species are multiplied and improved the more the wild animals become subjected to the dominion of an absolute tyrant, who will hardly permit their individual existence, deprives them of liberty, of every avenue to society, and destroys the very root of their intelligence. What they are become, or what they may become, is an inadequate indication of what they may have been or might be. Who can say, if the human species were annihilated, to which of the animals would the sceptre of the earth belong?⁴²

Repressed, sterilized, almost completely destroyed, animal intelligence is thus pushed to the brink of automatism. If there truly is automatism in Buffon, one cannot fail to distinguish it from that of the traditional notion. In Buffon, the separation is radical, but it is also contingent, since there is no obstacle preventing things from having happened otherwise. For instance, another animal could have developed a capacity to stand up and overcome humans, which would put us in a very uncomfortable position—perhaps we too would be reduced to a quasi-mechanical life. This is to say that, ultimately, neither human progress nor animal sterility can be taken as ontological attributes.

This point has important consequences for how we understand the limits of animal intelligence in Buffon's writings: if there were no oppression on the part of humans, what would become of these limits?

Together with the radical separation between human and animal, Buffon also identifies a form of rationality in animals. This encourages us to understand his account of the separation from the perspective of his views about the struggle for sovereignty in nature, rather than any metaphysical-theological premises. In other words, for Buffon, the deprecation of animal intelligence is not to be explained in terms of animals' exclusion from a metaphysical and spiritual principle, but rather by their defeat and their consequent inability to evolve, due to being terrorized by the human empire. This, therefore, is how one can understand the subordination of matter to thought: due to the harsh circumstances in which animals are forced to exist, their intelligence is reduced to the mere satisfaction of needs, to the point that their movements can be explained as mere mechanical adjustments.

However, even in these harsh circumstances, several signs of their (repressed) intelligence may be recognized. Looking at these signs should help us better understand what Buffon is claiming through his account of human-animal difference as being brought about by domestication.

Animal Intelligence

Buffon recognizes the intelligence behind animal behavior, both domesticated and wild. His article on "The Elephant" (1764), for instance, is remarkable: after considering several narratives from different sources, such as ancient philosophers and modern travelers, and putting aside those that he could not trust, he praises this animal's intelligence above all other animals.⁴³ In contrast to the Cartesian strands of his thought, Buffon writes that the elephant "seems to reflect, to think, and to deliberate, and never acts till he has examined and observed several times, without passion or precipitation, the signs which he is to obey."⁴⁴ Buffon relates the elephant's extraordinary intelligence to the existence of its trunk, which he considers to be probably the most complete and most admirable production of nature. Having "the hand in his nose," the elephant unites different senses such as feeling and smelling, as well as the facility of movement and the power to move heavy objects, with the power of the suction of his lungs.⁴⁵

"The Beaver" (1760) is another article worth reading for those interested in Buffon's views on animal intelligence. He insists that individual beavers come together in society by means of "a kind of a choice" and not mere necessity, which is also true for the formation of a beaver couple.⁴⁶ Given that their union is not a forced one, Buffon considers that it supposes "at

least a general concurrence and common views” among different members of the species.⁴⁷ Nor must we forget the complexity of their works, in which we see an effective division of labor.⁴⁸ The extraordinary behavior observed in this animal leads Buffon to reflect, in the extract quoted earlier, that if “the whole surface of the earth should, in the process of time, be equally inhabited by the human species, in a few centuries the history of a beaver would be considered as a fable.”⁴⁹

Some would take Buffon’s work to be a precursor of ethology.⁵⁰ Although most of his own observations are restricted to domestic animals, whether at the *Jardin des Plantes* in Paris or on his own property in Montbard, Buffon’s accounts of wild animals are well done and based upon a rigorous systematization of the knowledge available to him. We can see the correspondence between Buffon and contemporary ethology, for example, in some of Georges Canguilhem’s writings, such as “Le vivant et son milieu.”⁵¹ R. W. Burkhardt, Jr. for his part, relates Buffon to the contemporary ethologists Konrad Lorenz and Charles Otis Whitman under the perspective of their writings on domestication (remarking, for instance, on the supposed promiscuity of domesticated quadrupeds and birds).⁵²

Throughout the *Histoire Naturelle*, we see the unfolding of a vast investigation that connects intelligence, the structure of the senses, and the natural environment of each species. We can find affinities with French materialists such as Diderot and La Mettrie, as well as with the sensualism of Condillac. From this perspective, his *Histoire Naturelle* contributes to the central epistemological problems of its century. For example, Buffon relates the exquisite sense of sight in birds to the organic structure of their eyes, which is also related to the acquisition of extraordinarily accurate ideas concerning movement.

The idea of motion and all the other ideas which accompany or flow from it, such as those of relative velocities, of the extent of country, of the proportional height of eminences, and of the various inequalities that prevail on the surface, are, therefore, more precise in birds, and occupy a larger share of their conceptions than in quadrupeds. Nature would seem to have pointed out this superiority of vision by the more conspicuous and more elaborate structure of its organ; for in birds the eye is larger in proportion to the bulk of the head than in quadrupeds; it is also more delicate and more finely fashioned, and the impressions which it receives must excite more vivid ideas.⁵³

Buffon thinks that only birds, among all of the animals, move in such a way that movement seems more natural to them than repose.⁵⁴ Without

their excellent vision, they would never be able to move with the speed, the continuity, and the duration we observe: “Indeed, we may consider the celerity with which an animal moves, as the just indication of the perfection of its vision.”⁵⁵ According to him, all the speed they achieve—thanks to their agility and vast muscular strength—would be absolutely useless if they were born short-sighted: “the danger of dashing against every intervening obstacle would have repressed or extinguished their ardour.”⁵⁶

Humans, too, are frequently divested of their metaphysical greatness in Buffon’s work in order to be examined through the frame of their organic conformation. Within a sensualist perspective, knowledge is related to the sensorial configuration, which emerges as a key feature for defining human–animal difference.

The predominating sensations will also follow the same order: man will be most affected by touch; the quadruped by smell; and the birds by sight. These will likewise give a cast to the general character, since certain motives of action will acquire peculiar force, and gain the ascendancy. Thus, man will be more thoughtful and profound, as the sense of touch would appear to be more calm and intimate; the quadrupeds will have more vehement appetites; and the birds will have emotions as extensive and volatile as is the glance of sight.⁵⁷

In this passage, although humans differ from animals in terms of the relation of knowledge to sentiment, the difference is not absolute, since it is not associated with a metaphysical attribute presumed to be exclusive to humankind. Rather, the distinction turns on the predominance of specific senses: touch for humans, and smell for animals. But humans are also provided with a sense of smell, and animals with a sense of touch—making the distinction one of degree, not kind. This may explain why Buffon affirms, in the extract, that animals have *less* judgment than sentiment, thereby avoiding a complete denial of judgment to animals.

Yet despite Buffon’s sensualist affinities, we can also discern a persisting separation between humans and animals that seems to be just as strong as his Cartesian dualism itself.⁵⁸ Although, as the *Histoire Naturelle* goes on, the philosophical and metaphysical perspectives give way to the naturalistic, and the reader is constantly reminded of the separation established in the first volumes of the series. Here animals do not have memory, but only a species of memory; they do not have choice, but only a species of choice; not intelligence, but glimpses of intelligence; not imagination, but another form of imagination, and so on.⁵⁹ By this perspective, the analogy between human and animal perhaps “seems well founded”—but it is not.⁶⁰ Even if

their actions are very similar, we cannot ignore the fact that the principles that cause those actions are different. Animal actions are determined by sentiment (a mechanist perspective), while human actions are determined by sentiment and spirit.⁶¹ There are several suggestions that this distinction never disappears entirely, even with the prevalence of the naturalistic perspective: one of these concerns the intelligence of the elephant, whose extraordinary capacity is explained to be the result of a “material” combination of the information derived from the senses, here seen as equivalent to the combination that in humans is effected by reflection.

They [elephants], therefore, with the same member, and by one simultaneous act, feel, perceive, and judge of diverse things at once. His multiplied sensations are equivalent to reflection; and though this animal is, like others, incapable of thinking, as his sensations are combined in the same organ, are coeval and undivided, it is not surprising that he has ideas of his own, and that he acquires in a little time those we inculcate to him.⁶²

Sentiment *versus* idea: the human–animal difference thus persists, despite the connection between intelligence and the senses. One must note, though, that the borders seem less fixed. In the following extract, we see the distinction between sentiment and knowledge associated with the notion of “prevailing” sensations, which may suggest a difference of degree and not kind: “In man, where everything should be judgement and reason, the sense of touch is more exquisite than in animal, where there is less judgment than sentiment; in these, on the contrary, smell is more perfect than in man: for touch is the foundation of knowledge, and smell is only the source of sentiment.”⁶³

Since the uniqueness of human nature is located in the capacity of thinking, every perspective that endows animals with thought or intelligence could threaten that uniqueness. No wonder Descartes is constrained to argue against animal thought. Under this perspective, the *homo duplex* and the animal-machine emerge as two sides of the same coin, as Paul-Laurent Assoun points out in his introduction to La Mettrie’s *L’homme machine*.⁶⁴ Descartes considers “the belief in animal thought” to be “the strongest of all our infantile prejudices.”⁶⁵ This mistake takes place, according to Descartes, because the resemblance in external figure and movement leads us to believe that they have a soul similar to ours. This “prejudice” makes us lose sight of the fact that their movements derive from an exclusively material principle, that is, the animal spirits.⁶⁶ We should instead understand that this infantile habit must be dissolved and replaced by the cultivation of a different habit: that of conceiving of animals as analogous to automata.⁶⁷ If the human spiritual principle existed in animals, Descartes thought, we would be forced to endow even oysters or sponges with a soul, which would be absurd.⁶⁸

It has been suggested that the traces of Cartesianism in the *Histoire Naturelle*, as well as the theological aspects to be found in that work, should be considered as evidence of Buffon's caution with regards to the censors at the Faculty of Theology of the Sorbonne.⁶⁹ Holding an eminent place in the royal court, that of director of the *Jardin du Roi* (today, the *Jardin des Plantes*), which carried considerable scientific status with it, Buffon had a lot to lose from persecution like that suffered by several of the so-called *philosophes*, such as Diderot, Rousseau, and, later, Helvétius. The condemnation of Helvétius's *De L'Esprit* in 1758 resulted in the deposition of the royal censor, Jean Pierre Tercier, and the demand for a retraction from Helvétius himself. Buffon was also obliged to make a retraction on more than one occasion, the first with his "Of the Nature of Animals" in 1753. We must remember, however, that not all specialists on Buffon agree with this explanation.⁷⁰

Irrespective of the reason for the Cartesian traces, the fact remains that the naturalistic perspective itself offers a radical separation between human and animal and, precisely because of this, may still be in harmony with the Cartesian perspective. Buffon engages in a deep exploration of animal intelligence, and his resistance to extending the human–animal analogy from the body to the mind cannot be considered a mere façade. In view of this, we should perhaps ask ourselves how independent these two perspectives on the definition of humanity really are—i.e., the one based on the acknowledgment of domination, and the other founded in metaphysics. Might we think, in a certain Nietzschean vein, that these two dimensions are in fact intimately related to one another? In this perspective, if animality arises as the necessary other of humanity, then metaphysical superiority would arise as the necessary other in a relation of power. Thus we should not be surprised to find metaphysical terms mixed in with the naturalistic point of view: concerning the human empire, Buffon writes that it is an empire of spirit over matter.⁷¹ Where classifications or the establishment of borders are concerned, science looks less impartial and more political than one might initially think.

Notes

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1. Buffon, "Initial Discourse: On the Manner of Studying and Writing about Natural History," in John Lyon, "The 'Initial Discourse' to Buffon's *Histoire Naturelle*," *Journal of the History of Biology* 9, no. 1 (1976): 133–81, 150; Buffon, *Histoire Naturelle, générale et particulière*, 36 vols. (Paris: Imprimerie royale, 1749–89), 1:12, hereafter cited as *HN*. The "Initial Discourse" was not included in the first English translations of Buffon's *Histoire Naturelle*. Phillip Sloan suggested to Lyon that the exclusion was due to Buffon's attack on Carl von Linné (Lyon, "The 'Initial Discourse,'" 134).

2. Buffon, "Initial Discourse," 150; *HN*, 1:12.

3. See Jacques Roger, *Buffon, un philosophe au Jardin du Roi* (Paris: Fayard, 1989), 106; Jean Ehrard, *L'idée de nature en France dans la première moitié du XVIII^e siècle* (Paris: Albin Michel, 1994), 190; and Phillip R. Sloan, "The Buffon-Linnaeus Controversy," *Isis* 67, no. 3 (1976): 356–75.

4. See Jorge Martínez-Contreras, "Des mœurs des singes: Buffon et ses contemporains," in *Buffon 88: Actes du Colloque international pour le bicentenaire de la mort de Buffon* (Paris: J. Vrin, 1992), 557–68.

5. See Sloan, "Buffon-Linnaeus Controversy"; Thierry Hoquet, "La comparaison des espèces: ordre et méthode dans l'*Histoire Naturelle* de Buffon," *Corpus. Revue de philosophie* no. 43 (2003): 355–416; and Franck Dougherty, *La métaphysique des sciences. Les origines de la pensée scientifique et philosophique de Buffon en 1749* (Ph.D. thesis, Université Paris 1, 1980). Cf. Paolo Casini, "Buffon et Newton," in *Buffon 88*, 299–308.

6. In Roger's words, there is a "decreasing order of dignity." See his *Les sciences de la vie dans la pensée française aux XVIII^e siècle* (Paris: Albin Michel, 1993), 531. Cf. Michèle Duchet, *Anthropologie et histoire au siècle des Lumières* (Paris: Albin Michel, 1995), 230.

7. Roger, *Les sciences de la vie*, 531.

8. Hoquet, "La comparaison des espèces," 393.

9. Buffon, "Of the Nature of Animals" (1753), in *Buffon's Natural History. Containing a Theory of the Earth, a General History of Man, of the Brute Creation, and of Vegetables, Minerals, &c. &c.*, trans. J. S. Barr, 10 vols. (London, 1797), 5:77, hereafter cited as *Natural History*; *HN*, 4:92. On the quarrel with Réaumur, see the notice concerning it in the Pleiade edition of Buffon's *Histoire Naturelle* (Paris: Éditions Gallimard, 2007), 1501.

10. Buffon, "Of the Nature of Man," *Natural History*, 3:333; *HN*, 2:443.

11. For the history of this term, see François Azouvi, "Homo duplex," *Gesnerus* no. 42 (1985): 229–44.

12. See Descartes, *Discours de la méthode* (1637), Part V. Concerning the animal-machine theory, see the chapter about Descartes's "La fable des machines," in Élisabeth de Fontenay, *Le silence des bêtes: la philosophie à l'épreuve de l'animalité* (Paris: Fayard, 1998). For a detailed examination of Descartes's views on animals

and their relations to medieval and ancient thought, see Thierry Gontier, *De l'homme à l'animal. Montaigne et Descartes ou les paradoxes sur la nature des animaux* (Paris: Vrin, 1998); and *La question animale. Les origines du débat moderne* (Paris: Hermann, 2011).

13. Julia Douthwaite, *The Wild Girl, Natural Man, and the Monster: Dangerous Experiments in the Age of Enlightenment* (London: University of Chicago Press, 2002), 17. See Dagognet, *L'animal selon Condillac* (Paris: Vrin, 2004), 68; Contreras, "Des mœurs des singes"; and Markovitz, "Remarques sur l'histoire du problème de l'âme des bêtes," *Corpus: Revue de philosophie* no. 16 (1991): 79–92.

14. Hoquet, *Buffon: Histoire Naturelle et philosophie* (Paris: Honoré Champion, 2005), 495; Lifschitz, "The Book of Job and the Sex Life of Elephants: The Limits of Evidential Credibility in Eighteenth-Century Natural History and Biblical Criticism," *Journal of Modern History* no. 91 (2019): 739–75, 758.

15. Buffon, "General Views of Nature. First View," *Natural History*, 10:340 (emphasis added); *HN*, 12:14. Cf. Titus Lucretius Carus, *De Rerum Natura*, 5:206–18.

16. See La Mettrie, *L'Homme-machine* (Paris: Éditions Denoël/Gonthier, 1981), 157.

17. Diderot, *Réfutation suivie de l'ouvrage d'Helvétius intitulé L'Homme*, in *Œuvres complètes*, 20 vols. (Paris, 1875–77), 2:323.

18. For the French materialists and the problem of animality, see Jean-Luc Guichet, "Âme des bêtes et matérialisme au XVIII^e siècle," in *De L'Animal-machine à l'âme des machines. Querelles biomécaniques de l'âme (xvii^e-xx^e siècle)*, ed. Jean-Luc Guichet (Paris: Publication de la Sorbonne, 2010), 135–51.

19. See the sections "Of the reason of animals" (Book 1), "Of the pride and humility in animals" (Book 2), and "Of the love and hatred of animals" (Book 2), in Hume's *Treatise of Human Nature*.

20. For Rousseau's thinking about animals, see Jean-Luc Guichet, *Rousseau, l'animal et l'homme. L'animalité dans l'horizon anthropologique des Lumières* (Paris: Les Éditions du Cerf, 2006).

21. Hoquet, "La comparaison des espèces," 397.

22. Buffon, "The Dog," *Natural History*, 5:313; *HN*, 5:195.

23. Buffon, "The Cat," *Natural History*, 6:6; *HN*, 6:7.

24. Buffon, "The Elephant," *Natural History*, 7:257; *HN*, 11:4.

25. Buffon, "The Dog," *Natural History*, 5:305; *HN*, 187. See also the following text dedicated exclusively to the essay on the dog: Buffon, *Le chien*, ed. Bruno Vincent (Paris: Arléa, 1994).

26. The notion of degeneration is central to understanding Buffon's place in the history of transformism. See Buffon, "On the Degeneration of Animals," in *Natural History*, vol. 10; *HN*, vol. 14.

27. Buffon, "The Pigeon" (1771), *Histoire Naturelle des oiseaux* (Paris: Imprimerie Royale, 1770–83), 2:496 (my translation), henceforth cited as *HNO*. N.B. this passage is not in the 1792–93 translation cited in note 29. According to Buffon, besides human beings, the climate is another important cause of change in animal forms (see *HN*, 9:126).

28. Buffon, "The Dog," *Natural History*, 5:340; *HN*, 5:225.

29. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 9 vols. (London, 1792–93), 1:17; *HNO*, 1:40.
30. Buffon, "The Dog," *Natural History*, 5:304; *HN*, 5:186.
31. Buffon, "The Dog," *Natural History*, 5:306; *HN*, 5:18.
32. With Louis-Jean-Marie Daubenton's writings in mind, Hoquet observes that the horse is the animal that is the most familiar to the anatomists of the period—after, of course, the human being ("La comparaison des espèces," 402).
33. Buffon, "The Horse," *Natural History*, 5:94; *HN*, 4:174.
34. Buffon, "Of the Nature of Man," *Natural History*, 3:327; *HN*, 2:438.
35. Buffon, "Of the Nature of Man," *Natural History*, 3:328; *HN*, 2:438.
36. Buffon, "Of Wild Animals," *Natural History*, 6:25; *HN*, 6:61.
37. Buffon, "Of Wild Animals," *Natural History*, 6:26; *HN*, 6:62. Cf. the introduction of "The Beaver," *Natural History*, 6:287; *HN*, 8:282.
38. See Buffon, "The Beaver," *Natural History*, 6:288; *HN*, 8:283.
39. "Yesterday, the King went to the park of Versailles and killed around 280 pieces. The Duke and the Prince of Conty were with the King, as well as several courtiers. The Duke used muskets and killed 120 pieces. The King authorised Mr. Courtenvaux and Mr. Souvise to use pistols: one killed 26 or 27 and the other about 15" ["Le Roi fut hier tirer dans le parc de Versailles et y tua environ 280 pièces. M. le duc et M. le prince de Conty avoient suivi le Roi à la chasse, et grand nombre de courtisans. M. le Duc avait fait porter des fusils, et tua 120 pièces. Le Roi avait permis à M. de Courtenvaux et M. de Souvise de tirer à coups de pistolet. Ils tuèrent, l'un 26 ou 27 pièces, et l'autre une quinzaine"]; Grégory Quenet, *Versailles, une histoire Naturelle* (Paris: La Découverte, 2015), 239.
40. Grimm, *Correspondance littéraire, philosophique et critique*, 16 vols. (Paris: Garnier frères, 1877–82), 3:303. Cf. Renan Larue, *Le Végétarisme des Lumières. L'abstinence de viande dans la France du xviii^e siècle* (Paris: Classiques Garnier, 2019).
41. Concerning the management of the *gibier*, see Quenet, *Versailles*, 114.
42. Buffon, "Of Carnivorous Animals," *Natural History*, 7:116; *HN*, 7:4; "Of Wild Animals," *Natural History*, 6:26; *HN*, 6:62. Buffon's understanding of humankind's destructive powers exists side-by-side with his views on the elevated place reserved for human beings. Thus, if one seeks a critique of mankind in Buffon, one must take into account the complexity of his position.
43. For instance, Buffon discounts the belief in India that elephants are the reincarnations of great men or ancient kings, which supposedly explains why they are treated with such respect and bestowed with luxurious ornaments. Buffon quips that since all this respect and luxury does not corrupt the elephants' souls, they "consequently" do not have "a human soul, and this circumstance should be sufficient to prove it to the Indians" ("The Elephant," *Natural History*, 7:261; *HN*, 11:9).
44. Buffon, "The Elephant," *Natural History*, 7:285–86; *HN*, 11:50.
45. Buffon, "The Elephant," *Natural History*, 7:286; *HN*, 11:52.
46. Buffon, "The Beaver," *Natural History*, 6:289, 301; *HN*, 8:285, 296.

47. Buffon, "The Beaver," *Natural History*, 6:289; *HN*, 8:285. For the limits of animal society in comparison with that of humans, see "The Beaver," *Natural History*, 6:287; *HN*, 8:283.

48. Buffon, "The Beaver," *Natural History*, 6:295; *HN*, 8:291.

49. Buffon, "Of Wild Animals," *Natural History*, 6:26; *HN*, 6:62.

50. See, for example, Martinez-Contreras, "Des mœurs des singes."

51. Canguilhem, *La connaissance de la vie* (Paris: Vrin, 1965). See also Jacques Roger, *Buffon*, 376.

52. Burkhardt, "Le comportement animal et l'idéologie de domestication chez Buffon et chez les éthologues modernes," in *Buffon* 88, 569–82.

53. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 1:5; *HNO*, 1:11.

54. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 1:17; *HNO*, 1:40.

55. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 1:5; *HNO*, 1:10.

56. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 1:19, 1:5; *HNO*, 1:45, 1:10. I have slightly modified the translation.

57. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 1:28; *HNO*, 1:67.

58. We reserve for another occasion a careful examination concerning these affinities. For the moment, we refer to Roger, *Les sciences de la vie*, 536; and, for the complexity of Buffon's writings on this topic, Dougherty, *La métaphysique des sciences*.

59. See Buffon, "Of the Nature of Animals," *Natural History*, 5:42 (memory), 5:78 (choice and intelligence), 5:54 (imagination); *HN*, 4:55, 4:95, 4:68. Regarding choice and intelligence, see also "Of Wild Animals," *Natural History*, 6:25; *HN*, 6:61.

60. Buffon, "Of the Nature of Animals," *Natural History*, 5:28; *HN*, 4:38.

61. In his *Traité des animaux* (1755), Condillac rejects Buffon's conception of sentiment independent of the production of ideas. This is probably the central point of his criticism of Buffon's automatism.

62. Buffon, "The Elephant," *Natural History*, 7:289; *HN*, 11:54.

63. Buffon, "On the Nature of Birds," *The Natural History of Birds*, 1:2; *HNO*, 1:5. I have slightly modified the translation.

64. Assoun, "Lire La Mettrie," in La Mettrie, *L'Homme-machine*, 54.

65. Descartes, letter to Henry More, 5 February 1649, in *Œuvres Philosophiques*, ed. Ferdinand Alquié, 3 vols. (Paris: Éditions Classiques Garnier, 2010), 3:884.

66. The soul of animals is directly related to the blood; it is "a fluid body which moves very fast, of which the most subtle part is called spirit" ("un corps fluide qui se meut très vite, duquel la partie la plus subtile s'appelle esprit"); Descartes, letter to Van Buitendijck, 1643, in *Œuvres Philosophiques*, 3:59). Concerning this, see Fontenay, *Le Silence des bêtes*, 382.

67. See Descartes, letter to Marin Mersenne, 30 July 1640, in *Œuvres Philosophiques*, 2:249.

68. See Descartes, letter to William Cavendish, Marquis of Newcastle, 23 November 1646, in *Œuvres Philosophiques*, 3:696.

69. Roger, *Buffon*, 221. At the time, Cartesian dualism was the orthodox doctrine of the Church.

70. See Roger, *Buffon*, 221; and Dagognet, *L'animal selon Condillac*, 66.

71. Buffon, "Of Domestic Animals," *Natural History*, 5:89; *HN*, 4:170.