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Marking the Boundaries: Animals in Medieval Latin Philosophy

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1. Introduction

Medieval philosophers were generally speaking not particularly interested in non-human animals ('animals' for short[1]) for their own right, and when they did discuss them, their aim was to shed light on human nature rather than to animals as such. Animals were regarded as "the other" that functions as a kind of mirror, which enabled philosophers to reveal more clearly what makes human beings special in comparison to the rest of the creation. This does not mean that medieval philosophers never wrote zoological works. They did, and some of them were clearly interested in animals and their psychological abilities for their own sake. Yet, in order to understand medieval conceptions of animals, we cannot limit ourselves to materials that relate directly to them. Many important ideas concerning animals can be found in commentaries on Aristotle's *On the Soul* and *Nicomachean Ethics*, in psychological sections of the commentaries on Peter Lombard's *Sentences*, and so forth. Even though the tone of these works is clearly anthropological and anthropocentric, the authors often reveal their views on animals while developing their ideas concerning human beings.

My approach in the present chapter is similar to the medieval one, although my aim is squarely opposed to it. Where medieval philosophers discuss animals in order to understand

[1] When talking about medieval views, the accurate expression would be 'non-human animals', because medieval philosophers thought that human beings are animals. I will use the shorter expression in order to make the text more readable.

human nature, I endeavor to make medieval conceptions of animals understandable by comparing them to their views on human beings. By looking at the various boundaries that were drawn between human beings and animals, we will be able to understand what medieval authors thought about animals—even if they themselves may have been more interested in human beings, when they negotiated the exact place of those boundaries.

The chapter is divided into three sections. Section one deals with the metaphysics of the animal soul, in comparison to the human soul. I shall underline the radical metaphysical difference between human beings and animals while pointing out certain aspects of medieval views, which show that animals were nevertheless considered to be similar to human beings in many respects. Section two is devoted to animal psychology. After presenting the basic framework of medieval faculty psychology and animal psychology, I shall discuss a couple of highly sophisticated abilities that were occasionally attributed to non-human animals. Finally, the last section briefly approaches medieval conceptions from an ethical perspective by considering animals as moral agents, moral patients, and moral examples.

The following discussion is based on the methodological presupposition that we can understand medieval animal psychology by looking at human psychology insofar as it deals with those psychological powers that medieval authors considered to be common to human beings and animals. In other words, animals and human beings were thought to be similar in relevant respects—to the extent that when humans do not engage in the psychological actions that are proper to human beings, they are very much like other animals. There were authors who thought that our rationality affects the functioning of our lower psychological powers, but it is misleading to think that as rational beings, our mental lives would be completely and radically different from those of other animals. I shall qualify and defend this methodological approach below, but it is important to be frank about it from the outset, not least because it explains why the discussion revolves around the demarcation line between human beings and

animals. By looking at the differences we are able to see where the similarities end and where they are challenged.

The overall aim of this chapter is to show that medieval views on animals were far more nuanced and heterogeneous than is usually thought. The emphasis is on those aspects of medieval views that portray animals as complex and sophisticated creatures—as creatures which are not so different from human beings as one might expect. It is worth keeping in mind that not every medieval philosopher accepted that animals are capable of all the highest abilities that will be discussed (at least it is not obvious that they did). But such abilities were frequently admitted, a point which casts doubt on the recurrent assumption that by downgrading animals, medieval thought underlies modern attitudes that allow their mistreatment. It is true that medieval philosophers were anthropocentric, but their interest in human beings was always a part of a general framework in which human beings were considered to be similar to other animals, or indeed, to *be* animals.[2]

2. Metaphysics

A long tradition stretching from Antiquity to the Middle Ages and beyond unanimously held that all living beings have a soul. In the most general sense of the term, having a soul meant being alive. Various philosophical traditions understood the metaphysical nature of the soul in different ways, but after the reception of Aristotelian natural philosophy during the twelfth and thirteenth centuries, medieval philosophers generally accepted the view that the soul is a form. It is a structural principle which organizes the matter of a body and makes it the kind of body that it is. Every living being was, according to them, a body that is organized in such a way that it is alive and capable of performing various psychological operations. The same

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[2] For an overview, which pays attention to the context of medieval discussions, see Pieter De Leemans and Matthew Klemm, “Animals and Anthropology in Medieval Philosophy,” in *A Cultural History of Animals in the Medieval Age*, vol. 2, ed. B. Resl (Oxford/New York: Berg, 2007), 153–77.

metaphysical view applied to all living beings; the bodies of plants, animals, and human beings were organized by their souls.

However, the tradition also saw differences between different kinds of souls. Aristotle distinguished living beings into three major categories—plants, animals, and humans—by appealing to a threefold division of kinds of souls. Plants have a vegetative soul, animals have a sensory soul, and human beings are endowed with rational souls. Each of these different kinds of souls enables a certain set of powers that distinguishes it from the others, but on each successive step, from a simpler type of soul to a more complex one, the previous powers are preserved. Animals are capable of all the operations and functions that are attributed to plants, and human beings surpass animals in many ways without losing any kind of power that animals have. The three types of souls form a hierarchy, but they share many central properties.

The sensory soul of animals was understood to be a form, a structural principle that organizes the matter of the body and provides a set of sensory powers for the animal. Unlike human beings, whose souls are immaterial and immortal, animals were taken to be nothing but organized living bodies. The life functions and psychological processes of animals were accounted for by appealing to the movement of matter and material changes in the body, especially in the heart and brain and through them in the veins and nerves. In order to account for the psychological powers, for instance perception and memory, medieval authors appealed to *animal spirit.* We should not be misled by the name, because animal spirit is matter, albeit a special kind of highly refined matter. The fine material spirit flows in the chambers of the brain and in the nerves, and its movement is the material counterpart of psychological functions.[3] Yet, it would be misleading to say without qualifications that

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[3] Ruth Harvey, *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance* (London: the Warburg institute, 1975), 4–61; Costa ben Luca, *De differentia spiritus et animae*, in *The Transmission and Influence of Qusta ibn Luca's 'On the Difference Between Spirit and the Soul'*, ed. J.C. Wilcox (Ann Arbor: UMI, 1985), 143–233.

medieval philosophers defended reductive materialism with respect to animals and their life functions. They were happy to say that all the psychological functions of animals are realized as material changes, as movement of matter in the veins and nerves, but at the same time their theory leaned heavily upon teleological assumptions which are incompatible with modern reductive materialism. The medieval conception of matter cannot be understood without a reference to the form as a structural principle that makes an animal body the kind of body that it is, and the introduction of forms immediately brings final causality, teleology, and even intentionality into the picture. A classic example is the description of anger both as boiling of blood around the heart and as a desire for revenge or punishment—the cognitive element is indispensable for understanding what anger is.[4] Thus, material changes do not explain the higher level phenomena completely. They are but one aspect of complex psychological processes that can be understood only by taking the intentional and cognitive aspect into account as well.[5]

As the soul is the form of the body, it explains why and how the body is capable of doing various things. The soul gives to the body different kinds of powers, which come in accordance to the hierarchy of the kinds of souls. The vegetative soul gives the ability to grow, take on nourishment, and generate new individuals of the same species. In addition to these life functions, the sensory soul of animals provides at least the ability to perceive the world through the external senses but often also other powers, such as memory, imagination, and the abilities to move and have emotions. Thus, we find medieval philosophers often making statements such as: "An animal is distinguished from a non-animal by the ability to

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[4] This description originates in Aristotle (*De anima* 1.1, 403a25–b19), and it was commonly accepted in the Middle Ages. See e.g. Thomas Aquinas, *Summa Theologiae*, ed. P. Caramello (Turin: Marietti, 1948–50) (hereafter *ST*), II-1.22.2. Aquinas explains the relationship between material and formal elements e.g. in *ST* II-1.44.1 & 37.4.

[5] For a discussion, see Robert Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of* Summa Theologiae *Ia 75–89* (Cambridge: Cambridge UP, 2002), 95–99.

sense and move, as becomes clear from the first book of *On the Soul*."[6] Finally, human beings were thought to have rational powers and freedom of the will, in addition to the powers that they share with animals, because humans have the most sophisticated kind of soul, the rational one.

From early on, medieval philosophers understood this Aristotelian view through a systematic taxonomy that is commonly known as the 'Porphyrian tree', the basic principles of which they found in Boethius' (c. 480-524) translation of Porphyry's *Isagoge*. This book is an introduction to Aristotle's *Categories*, and throughout the middle ages it was the first book that students read when they started to study philosophy. The central idea in the Porphyrian tree is that all individual beings belong to a systematic hierarchy, which is divided into a descending order of genera and species. The highest genus, substance, is divided into two species: corporeal and incorporeal. These species are in turn divided into subspecies by further distinctions, and so forth, until we arrive at the lowest level of individuals. According to this model, animals belong to the genus of living bodies, and they are distinguished from plants by their ability to perceive. The genus 'animal' is further divided into rational and irrational animals. All other animals are irrational, and human beings alone belong to the species of rational animals. As the *Isagoge* puts it: "Substance is itself a genus. Under it is body, and under the body an animate body, under which is animal; under the animal is rational animal, under which is man; and under the man are Socrates and Plato and particular men."[7]

Rationality marks human beings off from other animals. That may not sound a big difference (and indeed, from certain points of view it is not, as we shall soon see), but there were reasons why medieval philosophers tended to see this difference not only as a matter of

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[6] Thomas Aquinas, *In duodecim libros Metaphysicorum Aristotelis expositio*, ed. M.R. Cathala & R.M. Spiazzi (Marietti, Taurini-Romae, 1971) (hereafter *In Met.*), 7.11.

[7] Porfyrios, *Anicius Manlius Severinus Boethius Porphyrii Isagoge translatio*, ed. L. Minio-Paluello, Aristoteles Latinus I.6-7 (Bruges/Paris: Desclée de Brouwer, 1966), 9. The translation is from Porphyry, *Introduction*, trans. J. Barnes (Oxford: Clarendon Press, 2003), 6.

being able to *do* more things with one's mind but as a metaphysical difference. The ancient idea that rational thinking cannot be realized in material organs married well with the Christian belief in the immortality and immateriality of the soul. Human rationality was explained by arguing that there is a clear essential difference between human beings and other animals. Medieval philosophers were unanimous that the human soul is an immortal and rational entity, which is created directly by God.[8] The rational soul distinguishes humans from other living beings. We alone, among living bodily beings, belong also to another reality, the immaterial one that lies beyond our visible and tangible world. We alone are capable of intellectual thinking, making free choices, living after the death of the body, and having a special kind of relation with God. Animals have none of these. They are material, mortal beings, incapable of understanding universal essences, and not free in the intended sense.

The view that medieval authors saw a radical difference between human beings and animals is familiar and in many respects true. Yet, it is important to keep in mind that within the medieval taxonomy, so clearly depicted in the Porphyrian tree, human beings were counted as animals. Due to the extreme popularity of *Isagoge*, the taxonomy became a truism, to the extent that it was considered to be a logical truth that human beings are animals—a special kind of animals, to be sure, but animals nevertheless.[9] Now, there is a crucial lesson to learn from this: even though medieval authors made a clear metaphysical distinction between human beings and other animals, it was always a part of a more general framework which is based on a similarity between us and them.

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[8] Medieval philosophers followed different strategies to drive this point home, and in some cases they might have been uncomfortable with the expression 'entity.' For a discussion, see Carlos Bazán, "The Human Soul: Form *and* Substance? Thomas Aquinas' Critique of Eclectic Aristotelianism," *Archives d'Histoire Doctrinale et Littéraire du Moyen Âge* 64 (Paris: J. Vrin, 1997): 95–126.

[9] As can be seen, e.g., from logical exercises conducted in the Arts faculties of medieval universities. "Omnis homo est animal" was one of the unquestioned premises. See, e.g., Peter of Spain, *Syncategoremata*, ed. L.M. de Rijk, trans. J. Spruyt (Leiden: Brill, 1992), 296–99; Henry of Ghent, *Syncategoremata Henrico de Gandavo adscripta*, ed. H.A.G. Braakhuis & G.J. Etzkorn, Ancient and Medieval Philosophy, Series 2: Henrici de Gandavo Opera Omnia (Leuven: Leuven UP, 2010), 47–48.

I have emphasized the similarities and differences between human beings and other animals because the borderline looks different from different perspectives. From a metaphysical point of view, animals form a clear and distinct group of beings that inhabit this created world. They are distinct from lifeless objects, which do not have souls, and even though they are not so easily distinguishable from plants metaphysically speaking—the animal soul is not radically different from the vegetative soul, after all—from a psychological and functional perspective also this borderline is rather clear. And finally, animals differ radically from human beings, who are the only bodily creatures capable of turning to the superior intelligible world. Human beings, it was commonly thought, occupy the middle ground between spiritual and corporeal worlds, being members of both.

However, if we change our perspective and concentrate on those differentiating functions that separate human beings from other animals, we face certain philosophically intriguing problems. We may ask in what sense rationality makes us special. Porphyry's *Isagoge* and the medieval commentaries on it seem to suppose that every human being has a rational soul even if there is no possibility to actually use the highest rational functions that it provides, for instance due to severe brain damage.[10] However, Aristotle's philosophy offers ideas that easily lead to what might be called 'a functional interpretation' of rationality as the essential power that really makes human beings what they are. As is well known, Aristotle argues that things are what they are only when they can perform their functions: an eye that has lost the ability to see is an eye only by name, and a saw that cannot cut wood is not really a saw.[11] It is perhaps easier to give the defining function in the case of an eye than in the case of a complete animal or a whole human being, but in his zoological works Aristotle seems to

[10] I will not go to the problems, interpretations, and medieval discussions concerning the metaphysical picture that *Isagoge* draws. See Jonathan Barnes, "Commentary," in Porphyry, *Introduction*, trans. J. Barnes (Oxford: Clarendon Press, 2003), 21–311.

[11] *De anima* 2.1, 412b18–22; *Meteorologica* 4.12, 390a10–13. See also Thomas Aquinas, *Sentencia libri De anima*, ed. R.A. Gauthier, *Sancti Thomae de Aquino Opera omnia iussu Leonis XIII P.M. edita* 45.1 (Rome/Paris: Commissio Leonina/Vrin, 1984), 2.1, p. 71; trans. T.S. Hibbs in *Aquinas on Human Nature* (Indianapolis: Hackett Publishing Company, 1999), 22, §226.

classify living beings according to the functions they are capable of performing. He hesitates whether beings, which do not move and perhaps do not perceive either, should be classified as animals or as plants. Ascidians, sea anemones, sponges and the like defy clean categorization.[12]

From these ideas it is only a short step to argue that each individual human being may actualize the human essence more or less perfectly, depending on how well he or she is able to use the rational functions that separate humans from other animals. This kind of functional perspective may not have been the mainstream position in the Middle Ages, but it appears occasionally in various contexts. One anonymous author claims that:

> A human being is chiefly called a human being when he is able to perform his proper operation, which is reasoning (*ratiocinari*). When he cannot do this, he is called a human being only equivocally. The Commentator [i.e. Averroes] attests this clearly in the beginning of the eighth book of Physics. For he says that 'human' is said equivocally of a human being who is perfected by speculative sciences and of one who is not perfected, like it is said [equivocally] of a painted and real human.[13]

As the author indicates, this idea originates in Averroes' influential commentary on the *Physics*, which was translated into Latin in the thirteenth century.[14] It was repeated by various medieval authors, who claimed that individuals who do not actualize their full potentiality as human beings are "brute humans" or even simply brutes (*homines brutales*, *bruti*).[15]

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[12] For Aristotle's idea of the continuous scale of nature, see e.g. *Historia animalium* 8.1, 588a16–b3; Albertus Magnus, *De animalibus libri XXVI*, ed. H. Stadler (Münster: Aschendorffsche Verlagsbuchhandlung, 1916) (hereafter *De animalibus*), vol. 1, p. 224 & vol. 2, p. 1341–42, 1348. [Add back reference to Henry? xxx]

[13] Ps.-Boethius of Dacia, Sup. An. Pr., Pro.: f.31ra, as quoted by C. Marno, "Anonymi Philosophia 'Sicut dicitur ab Aristotile': A Parisian Prologue to Porphyry," *Cahiers de l'Institut du Moyen Âge grec et latin* 61 (1991): 143 note f.

[14] The anonymous author is alluding to the passage from Averroes quoted at the start of Peter Adamson's chapter in this volume.

[15] For a discussion and references, see Luca Bianchi, *Studi sull'Aristotelismo del Rinascimento* (Padova: Il Poligrafo, 2003), 41–61. Bianchi traces the discussions from the Middle Ages to the Renaissance and shows that the idea gained some degree of popularity among Renaissance philosophers. It is notable that some medieval

Moreover, the idea that individual human beings may be less than humans and even worse than any other animal species was a commonplace in medieval commentaries on Aristotle's *Politics*, where it was argued that those who are incapable of living together with other people are beasts, or at least poor specimens of the human species.[16] In line with this view, Peter of Auvergne claims in passing that "a human being is a human being due to the reason which is in good condition and not corrupted."[17]

Medieval authors did not mean to argue that human beings who are incapable of intellectual thinking would not be humans in the metaphysical sense of not having an immortal rational soul. Rather, the claims were usually made in order to show the value of philosophical life. The idea was that individuals who do not lead a life that is proper to human beings as human beings do not live up to their full potentiality and therefore do not actualize the human nature perfectly. This point was first and foremost a normative one, also in the moral sense that human beings should not live like animals but take control over their emotional reactions, actions, and cultivate their highest abilities of intellectual thinking. If one fails to live a morally good life, one falls to the level of animals and, in a sense, becomes an animal. In a famous passage of the *Consolation of Philosophy*, the Lady Philosophy explains to Boethius how virtuous people always get a reward while evil men cease to be what they are:

> And it also follows that whatever falls from goodness ceases to exist, and that evil men cease to be what they were, having by their wickedness lost their human nature, although they still survive in the form of the human body. It is goodness that raises a

authors drop off the qualification "does not have aptitude to be able to be perfected by" speculative sciences, thereby making the claim even more radical. See, e.g., Aubry of Reims, *Philosophia*, ed. R. Gauthier, in "Notes sur Siger de Brabant (fin) II: Siger en 1272-1275; Aubry de Reims et la scission des Normands," *Revue des Sciences Philosophiques et Théologiques* 68:1 (1984): 29–30.

[16] Thomas Aquinas, *Sententia libri Politicorum*, cura et studio fratrum praedicatorum, *Sancti Thomae de Aquino Opera omnia iussu Leonis XIII P.M. edita* 48 (Rome: Ad Sanctae Sabinae, 1971), 78b80–100.

[17] Peter of Auvergne, *Questiones super libros Politicorum*, Paris BN Lat. 16089, fol. 276va.

man above the level of humankind, and it therefore follows that evil thrusts a man down below the human condition, so that he no longer deserves the name of man. [...] All those who have put goodness aside have no right to be called men anymore, since there is nothing divine about them, but they have descended to the level of beasts.[18]

The fact that these claims are normative, however, does not entail that they are completely metaphorical. When medieval authors claimed that human beings may become animals by failing to live virtuous and intellectual life, they were serious in the sense that the kind of life they wanted us to avoid was in many ways similar to the life of real non-human animals. The Averroist idea shows, if nothing else, that the activities which are proper to human beings and separate us from animals are fairly high in the scale that begins with the vegetative powers and ends with the rational ones. Even though our rationality enables us to overcome certain aspects of our animality, our mental lives are not radically different from those of other animals. This similarity is reflected in the discussions concerning the functional point of view: it is not obvious that we differ from other animals except insofar as we use our rational powers that animals do not have. In our everyday lives we are much like other animals.[19] This is important to keep in mind, because it means that the clear metaphysical distinction defended by medieval authors does not translate into a clear psychological distinction.

The bottom line is that in order to understand medieval views on animals, we need not go far. Looking at our own lives stripped of certain rational aspects is a rather good heuristic tool to understand what kind of psychological processes other animals are capable of. That said, it is true that many a medieval philosopher thought that our rationality changes our

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[18] Boethius, *Consolation of Philosophy*, trans. D.R. Slavitt (Cambridge, Mass./London: Harvard UP, 2008), book 4, part 3, p. 118.

[19] This idea is reflected, e.g., in Giles of Rome's *De regimine principum*: "A human being can be considered in three ways: first, as they are similar to animals; second, in themselves; third, as they participate in angels [...] Therefore, everyone lives either like an animal, like a human being, or like an angel. Namely, one who lives a life of pleasures, lives like a beast; one who lives a political life, lives like a human being; and one who lives a contemplative life, lives like an angel. Philosophers distinguish therefore three lives or these three modes of living." (Giles of Rome, *De regimine principum* (Rome, 1607), 1.4, p. 11.)

sensory operations. One might argue that our mental lives are in fact radically different from those of other animals, because in our case reason pervades everything else. This argument must be taken seriously, but at the same time it must be remembered that is by no means clear how medieval philosophers would have responded to it. Arguably, there were differing opinions: some authors thought that rationality is an all-pervasive element of our mental lives, while others were willing to give it a more limited role.

A special context, in which the functional perspective was especially important for deciding whether certain beings should be classified among humans or animals, was related to pygmies and various fanciful creatures that populated the medieval imagination.[20] Albert the Great and Peter of Auvergne, among others, asked whether pygmies are human beings. In the background of this question was a theological worry. All human beings should be baptized, and the demarcation line between humans and non-humans was therefore an important theoretical question that potentially had practical implications. As human beings are, by definition, rational animals, the central question was whether pygmies and other borderline cases are capable of using reason.

Opinions differed. An anonymous thirteenth century author argued that pygmies are as much human beings as anyone who is born of human parents. By contrast, even though other primates appear similar to human beings, they are not. The crucial difference was that "some have the use of reason, such as pygmies, but others do not, such as apes."[21] In sharp contrast to this view, Albert the Great (d. 1280) went through a long and tedious path in order to show that pygmies fall short of those rational powers that make us human beings. I shall come back to his view in the next section, but it is important to note that the issue was decided on the basis of the functional perspective, by appealing to the powers and abilities

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[20] T. W. Köhler, *Homo animal nobilissimum*, vol. 1, (Leiden: Brill, 2008), 419–43.

[21] "Aliqua habent usum rationis sicut pygmei, alia non habent sicut simia." (Anonymous, "Utrum pygmei sint homines?", Paris BN lat. 15850, fol.16va–17rb.)

each kind of being has. If there is a being which looks like a human but displays no rational powers, it is not a human being in the proper sense of the term.[22]

Albert's view is objectionable to a modern ear, and for a good reason. Luckily, we do not need to accept it and its moral implications in order to see what his argumentation reveals about the human/animal boundary. The psychological capacities of pygmies show us how complex functions a creature may have without compromising the distinction between animals and human beings, and therefore medieval discussions concerning pygmies test the demarcation line between rational and irrational animals. Obviously the metaphysical perspective is important, as the crucial difference was between having a rational soul and not having one. Yet, the metaphysical and functional perspectives are not distinct from each other, because the nature of the soul was inferred partially from the functions that one is able to perform. From this point of view it is possible to declare, as a sixteenth century philosopher Antonio Montecatini (1537–99) once did in passing, that "if brute animals were capable of having a mind and learning, they would be human beings, not brutes."[23] Medieval philosophers did underline the metaphysical difference between human beings and other animals, but it is less clear whether this difference translates into a clear psychological distinction. In order to understand medieval conceptions of animals, it is necessary to ask: How far can we ascribe complex psychological operations to animals without making them human beings?

[22] Catherine König-Pralong has argued that Albert the Great distances human beings from other animals by emphasizing the rational and normative elements of human life at the expense of the biological elements. See Catherine König-Pralong, "Animal equivoque: De Lincoln à Paris via Cologne," in *Mots médiévaux offerts à Ruedi Imbach*, ed. I. Atucha et al., Textes et études du Moyen Âge 57 (Porto, 2011), 67–76.
[23] Antonio Montecatini, *In Politica Aristotelis Progymnasmata* (Ferrara : Victorius Baldinus, 1587), cap. 5, pars. 2, textus 23, p. 76.

3. Psychology

As we saw above, animals were defined as living beings which are capable of perception. This ability separates them from plants. Although this criterion seems to be rather simple at the outset, it involves certain complexities. It is not obvious, for instance, whether or not a certain species *has* the ability to perceive—I already mentioned the Aristotelian borderline cases, such as sea sponges. Even in the case of animals which undoubtedly perceive their surroundings, the cognitive process by which perception takes place is by no means simple. Medieval philosophers were interested in explaining how various modalities of perception differ from each other, what powers of the soul are involved in perception, and which other psychological processes might be found in animals—especially higher ones, such as sheep, dogs, apes and, sometimes, pygmies.[24]

The starting point is rather obvious. Perfect animals have five familiar external senses—sight, hearing, touch, taste, and smell—by which they perceive their surroundings. Not all animals have all of them, since some species lack one or several of the five senses. Medieval philosophers claimed, however, following a long tradition that stretches all the way to Antiquity, that no matter how simple an animal is, it has at least one external sense, the sense of touch.[25] Being able to feel one's surroundings or the changes in one's body was regarded as an ability that belongs to all animals, and thereby animals were considered able to feel pain and pleasure. Thus, to use a modern term, sentience was regarded as the criterion by which animals were distinguished from plants in the Porphyrian tree.

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[24] For discussion, see Simo Knuuttila & Pekka Kärkkäinen, eds. *Theories of Perception in Medieval and Early Modern Philosophy* (Dordrecht: Springer, 2008).

[25] See, e.g., Walter Burley, *Expositio de somno et vigilia*, ed. C.T. Thörnqvist in "Walter Burley's *Expositio* on Aristotle's Treatises on Sleep and Dreaming," *Cahiers de l'Institut du Moyen Âge Grec et Latin* 83 (2014): IV.1, 423.

Touch was considered to be the most material of the senses. It requires a direct contact with the object and involves a material change in the body of the perceiver.[26] The other senses were organized into a hierarchy, the peak of which is sight—the most noble of all the senses because the least material of them all. In contrast to the other external senses, sight does not involve any material change in the medium or in the sense organ.[27] Medieval discussions concerning sense perception centered on sight not only because it was taken to be the most noble of the senses but also because it presented the most challenging philosophical problems.

Another cluster of cognitive powers that animals (including human beings) have is related to post-sensory psychological processes. Animals were thought to be able to remember, imagine, and to evaluate whether the objects they perceive are useful or harmful to them. Thus, for instance, a dog recognizes its owner and a sheep immediately knows that a wolf is dangerous when it sees one, even if it has no previous experience of wolves.[28] These psychological abilities are post-sensory in the sense that they either take place after the perception of an external object, or add some special element to a bare perception of the perceptible qualities (color, smell, etc.) of an external object. It is possible to see a man without recognizing him as the owner, and it is possible to see a wolf without becoming afraid of it. The additional elements of recognizing and becoming afraid are not parts of a perceptual act in itself, but something that may or may not accompany perceptual acts. Medieval philosophers thought that the animal soul must contain a set of post-sensory powers that account for the special features that sometimes accompany perception. These powers were called 'the internal senses'—not because they would be means for perceiving something that is internal for the perceiving subject but because their organs are not external and visible.

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[26] See, e.g., Dominicus Gundissalinus, *Tractatus de anima* in "The Treatise *De Anima* of Dominicus Gundissalinus," ed. J.T. Muckle, Mediaeval Studies 2 (1940), cap. 9, 70.
[27] *ST* I.78.3.
[28] On Avicenna's use of this example, see above in Peter Adamson's contribution.

The idea that the soul has internal senses was not strictly speaking a medieval innovation. Aristotle, Galen and other ancient authors discussed various types of sensory cognition that go beyond simple perception of perceptual qualities. Augustine (354-430) seems to have been the first Latin author to use the term 'internal sense' (*sensus interior*),[29] and his psychological ideas influenced medieval views concerning these powers. However, the most important developments of this idea took place in the medieval period. Arabic authors, most notably Avicenna, developed a systematic understanding of the various powers of higher animals and human beings, and medieval Latin authors continued this tradition. It is not an exaggeration to say that in the Middle Ages—both in Arabic and Latin—the internal senses became the most important powers in the domain of animal psychology. Medieval Latin authors discussed the number of the internal senses, the criteria for distinguishing them from each other, their functions, and their mutual relationships, and much of their psychological discussion revolves around them or at least is connected to them.[30] Even human rationality required appealing to the internal senses, due to the widely accepted empiricist idea that all human knowledge either arises from sense-perception or at least requires it as a starting point. Perceptual information goes through the internal senses before arriving at the intellectual level, and the psychological processes that make intellectual understanding possible were not a minor detail in medieval psychological discussions but a central part of them.

This is not a place to provide even an overview of the medieval views concerning the internal senses. Suffice it to say that the list of internal senses that medieval philosophers usually attributed to higher animals included the following powers: the common sense,

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[29] Harry Wolfson, "The Internal Senses in Latin, Arabic and Hebrew Philosophic Texts," in *Studies in the History of Philosophy and Religion*, vol. 1, ed. I. Twersky & G.H. Williams (Cambridge Mass.: Harvard UP, 1973), 252.

[30] For a discussion and references, see Carla Di Martino, *Ratio particularis: Doctrines des sens internes d'Avicenne à Thomas d'Aquin*, Études de Philosophie Médiévale XCIV (Paris: Vrin, 2008); Juhana Toivanen, *Perception and the Internal Senses* (Leiden: Brill, 2013), 225–45.

imagination, estimative power, memory and, occasionally, cogitative power. Some authors rejected some of these powers as superfluous, and sometimes different terminology was employed, but the overall scheme remained rather stable. Yet we find medieval philosophers presenting various, even radically different, views concerning the details of the functions of these powers as well as their mutual relations. One of the more striking suggestions was that the sensory soul includes only one internal sense, the common sense. This suggestion was influenced by Augustine's remarks concerning the centralizing power of the animal soul, but it was defended mostly for philosophical reasons. A proponent of this view, a Franciscan philosopher and theologian Peter Olivi (ca. 1248-98), provided a detailed philosophical analysis of how the common sense is able to perform all the complex psychological operations that are necessary in order to account for animal action. His view was based on the idea that various functions are necessarily connected to each other—that it is not possible, say, to remember an object without imagining it. It was more economical to attribute various functions to one power rather than postulate several powers, and by claiming that there is only one internal sense, there was no problem in accounting for the interconnection of the functions.[31]

The psychological functions that these powers were thought to perform were manifold. Combining and comparing the information received from various external senses; perceiving the so-called common sensibles (figure, movement, number etc.); imagining of objects that are not present; remembering and recognizing past events and objects; evaluating external objects in terms of their contribution to the well-being of the percipient; and second-order perception (that is, perceiving that one perceives) were all thought to be functions that are necessary for explaining animal behavior. The central idea in this kind of psychological

[31] Petrus Ioannis Olivi, *Quaestiones in secundum librum sententiarum*, ed. B. Jansen, Bibliotheca Franciscana Scholastica Medii Aevi 4–6 (Florence: Collegium S. Bonaventurae, 1922–26) (hereafter Summa II), q. 62–66, 589–614; Juhana Toivanen, *Perception and the Internal Senses*, 247–65.

approach—commonly called ‘faculty psychology’—was that if we see a certain kind of behavior in animals, we must attribute to them psychological powers without which the behavior cannot be explained. Thus, because dogs are able to remember that they have been beaten with a stick, and sheep run away from wolves even if they have no previous experience of them, we must assume that dogs are capable of remembering the beating, and sheep are somehow aware of the dangerousness of a wolf in their vicinity, even though they do not suffer pain from the perception. Scientific explanation of these phenomena calls for attributing the corresponding internal senses to these animals.

Finally, human rational powers mark the other end of the spectrum. The rational soul gives human beings a set of abilities that medieval philosophers denied to other animals. A typical list of psychological operations of which animals are incapable would contain at least the following: animals do not understand the essences of things; they do not grasp universals; they cannot speak, for speech is nothing but an external expression of internal rational concepts; they cannot control their emotional impulses but act immediately on the basis of their emotions without the possibility of being checked by reason; they do not have the freedom of the will; they cannot reason from premises to a conclusion; and they are not aware of themselves. It is less clear, however, to what extent rationality influences all the lower levels of psychological abilities. Occasionally medieval authors touch upon the role of human rationality in perception, and some differences in the functioning of the internal senses between human beings and other animals were often spelled out.[32] However, a typical approach was (arguably) that our rationality may affect the way we *use* the information that we get from the senses, but the sensory processes as such are similar in human beings and

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[32] Albert the Great argues that even though animals may perceive more acutely than human beings, human senses are more perfect precisely because they convey more intellectual information (*De animalibus* 21.1.1, 1323).

animals. This similarity is significant, because it allows us to see what kind of beings animals were thought to be from a psychological perspective.

Rational abilities aside, medieval discussions concerning sense perception and the internal senses apply to animals even when the author's main intention is to discuss the elementary features of human psychology. Especially when the differences are explicitly taken up and the author explains that human beings are capable of using some of their internal senses in ways that are not possible for animals, it is reasonable to assume that he deems the other operations as similar. Overall, it is clear that animals were not considered to be insensible automata. The difference between humans and animals is more in the level of sophistication. For instance, Aquinas argues (following Avicenna) that human beings are capable of imagining things that they have never seen by combining elements from various mental images and actively evoking memories of things we have almost forgotten.[33] We can imagine golden mountains, and we can try to remember what we had for dinner yesterday even if we do not recall it at the moment. By contrast, other animals can imagine only things they have seen before (that is, either a mountain or a pile of gold, but *not* a golden mountain) and they cannot actively search from their memories. This difference in psychological abilities is explicitly taken up by Aquinas, which underlines that animal psychology is not, after all, completely alien to human beings. It is but a simpler version of human psychology.

In order to see how sophisticated psychological abilities medieval authors attributed to animals, let us look at three examples, which can be found from various medieval authors: (1) the ability to speak; (2) the ability to reason; and (3) a certain kind of self-awareness. My intention is not to claim that these examples would represent typical ways of thinking about animal psychology; rather, I take them up in order to show that some medieval philosophers were prepared to concede fairly advanced psychological process to higher animals, and thus

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[33] *ST* I.78.4.

to draw the line between animals and humans fairly high. Other authors may have had more restrictive views, but they were nevertheless far from thinking that 'animal psychology' is an oxymoron.

(1) The first of these psychological abilities is suggested by Albert the Great. His view is significant, because he explicitly deals with the demarcation line *and* he attributes rather sophisticated abilities to animals. With respect to cognitive operations, higher animals differ from human beings mainly because they are incapable of understanding universal essences and deducing conclusions from premises. As we have seen, Albert thinks that pygmies are animals, but he considers them in many ways special among the animal kingdom. Many animals can remember past events and seek things that not present at the moment, and some are even able to learn from experience. Further, some animals understand human speech and can learn to obey commands.[34] Pygmies are so advanced in both of these skills that they have what Albert calls "the shadow of reason,"[35] which is a power that is above the estimative power but falls short of being a rational power proper. The former was often used to explain the seemingly rational actions of animals, as well as their ability to know which things in their environment are harmful and which are useful to them. Some of the functions that were attributed to it were complex, but Albert thinks that the abilities of pygmies require a higher capacity. By the shadow of reason, pygmies can imitate human arts, perform practical reasoning (although incompletely) and even use language: "Some [animals] thrive so much in training the sense of hearing, that they even indicate their intentions to each other—like pygmies who speak although they are irrational animals."[36] Language was usually considered to require rationality, and therefore it was denied to any other bodily

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[34] *De animalibus* 21.1.2, 1326–27. There are animals which cannot remember anything, Albert claims, and mentions flies which return immediately after they have been driven off by slapping. His famous example of learning from experience is a weasel which knows how to use a leaf of a certain plant to fight off the poison of a serpent.

[35] *De animalibus* 21.1.2, 1328–29.

[36] *De animalibus* 21.1.2, 1327–28; ibid., 1.1.3, 18. Albert mentions practical reasoning and imitation of arts in ibid., 21.1.2, 1327 & 3, 1332.

creature but human being. Albert's view is thus untypical, although he sees a difference between human language and the language of pygmies: "And therefore, although pygmies speak, they do not discuss about universal things but rather their voices refer to particular things."[37] Human beings can understand universals and discuss about them—that is, we are able to understand essences of things and operate with them—whereas pygmies speak only about particular objects.

Albert's general idea is easy to understand, but his claim about the language of pygmies is problematic. After all, language seems to presume some kind of generality, for otherwise there will be a distinct word for every individual thing in the world, and this makes language use not only superfluous but also impossible. Albert may think that pygmies do have general concepts that refer to several individuals of the same kind without being able to understand the essence of those individual objects.[38] This seems to call for some kind of ability to grasp similarity that is not based on the essences of things. Perhaps Albert thinks that already the sensory soul of animals enables apprehending individuals as belonging to the same species, as well as distinguishing members of different species from each other. This ability would not require understanding the essences of these individuals—after all, understanding an essence of a thing may be more like grasping a scientific definition than grasping similarity—and thus it could be attributed to non-human animals which do not have rational soul and reason. This kind of ability could function as the basis of the language pygmies speak.

Unfortunately Albert does not explain his view in any detail, but there are other medieval authors who suggest this kind of idea. An often repeated example, which seems to require the ability to recognize that an object is similar to other objects of the same kind, was

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[37] *De animalibus* 21.1.2, 1328; Irven Resnick, & Kenneth Kitchell, "Albert the Great on the 'Language' of Animals," *American Catholic Philosophical Quarterly* 70:1 (1996): 41–61.

[38] He claims that pygmies can reflect upon their experiences, without abstracting universal concepts from them (*De animalibus* 21.1.3, 1328), which seems to suggest that they are capable of entertaining some kind of proto-concepts.

a dog which is afraid of *all* sticks, because it has been beaten with *a* stick in the past. This Avicennian example was used to prove the existence of one of the internal senses (either the common sense or the estimative power—the dog apprehends the form of the stick and connects it with the sensation of pain, or it apprehends an intention of harmfulness together with the stick it perceives[39]), but for our purposes the crucial point is that animals learn from experience and they learn to avoid certain *kinds* of objects, not only the one individual object which gave them the experience in the first place. Medieval philosophers do not usually discuss the ability to generalize explicitly, but there is at least one author who argues for it while developing his theory of perception. Namely, Roger Bacon (c. 1214-94) attributes it to all animals in his *Perspectiva*:

> But it is clear that a dog recognizes a man, whom it has seen before, and that apes and many other animals also do this. And they distinguish between things they have seen of which they have memory, they recognize one universal from another—as man from dog or wood—and they distinguish different individuals of the same species. Thus, this cognition [...] belongs to brute animals as well as to humans, and therefore it happens by a power of the sensory soul.[40]

The central point here is that animals distinguish one species from another, and apparently they are able to apprehend members of one species as similar to each other in such a way that they are aware of their similarity. Bacon explains that animals differ from human beings because they do this by some kind of natural instinct and not by deliberation, but the crucial point is that animals are able to do this. One way to explain this idea is to say that animals

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[39] Respectively, Albertus Magnus, *De homine*, ed. A. Borgnet, B. Alberti Magni Opera Omnia 35 (Paris: Vivès, 1896), q. 35, a. 1, 308; and John of la Rochelle, *Summa de anima*, ed. J.G. Bougerol (Paris: Vrin, 1995), 2.101, p. 248.

[40] Roger Bacon, *Perspectiva*, in *Roger Bacon and the Origins of* Perspectiva *in the Middle Ages*, ed. D.C. Lindberg (Oxford: Clarendon Press, 1996), 2.3.9, 246–47. The translations of Bacon's work are by Lindberg, although I have occasionally amended them.

perceive natural kinds, even though they are incapable of grasping universal concepts. They do not understand the definitions of things and cannot form syllogisms, but it seems possible to recognize that two individuals of the same kind are similar to each other without knowing their universal essence.[41]

(2) Another ability that Bacon attributes to animals in the same context is a certain kind of ability to reason. He lists several cases in which animals act in an orderly fashion, making one thing for the sake of another. For instance, he tells a story about a cat which, upon seeing a fish in a large stone container, pulled a stopper and let the water out in order to catch the fish. This kind of process is akin to reasoning and, Bacon explains, it:

> occurs in an infinity of cases in which brute animals consider many things which are ordered to one thing which they intend to do, as if they were inferring a conclusion from premises. However, they do not organize their reasoning in [syllogistic] mood and figure, and they do not distinguish the end from the first actions. Nor do they perceive that they accomplish this kind of process, because their thinking proceeds as it does by natural instinct alone.[42]

Animals act in certain ways in order to achieve aims that are not an immediate result of their action. However, because they cannot deliberate the process, the situation is beyond their comprehension if they do not immediately see what needs to be done. By contrast, human beings may deliberate the possible courses of action and come up with a solution that was not immediately obvious to them.

It needs to be emphasized that although Bacon and other medieval authors use the term ‘natural instinct’, they do not necessarily mean that animals would be unconscious of their actions. Animals may not be aware of the complex process or of the reasons behind their

[41] To the best of my knowledge, medieval philosophers do not develop this idea explicitly, and therefore this interpretation remains somewhat speculative.

[42] Roger Bacon, *Perspectiva* 2.3.9, 250.

action, they do not reflect upon various possible courses of action, and they do not decide to perform, or refrain from performing, the action in question.[43] However, these limitations do not mean that they would be unaware of their actions and the objects that are involved in them. Consciousness in animals (or in human beings, for that matter) is evidently a problematic issue, given that medieval philosophers do not identify 'consciousness' as a philosophical problem.[44] They do, however, discuss many phenomena that are nowadays considered to be relevant for consciousness, and it is fairly clear that they consider it obvious that cognitive processes involve some kind of phenomenal first-person experience. At least medieval authors think that animals dream, act intentionally, and learn from experience. All of these psychological phenomena are difficult to explain without admitting that animals have some kind of awareness.[45]

(3) A typical limitation that medieval philosophers saw in animals' cognitive abilities was their lack of self-awareness. The metaphysical grounding for this limitation was that material entities cannot turn upon themselves. Because animals do not have immaterial souls, they are incapable of taking their own minds as objects of cognition. They are incapable of thinking of themselves as cognitive subjects. This limitation was related to the idea that animals cannot control themselves the way human beings do, because controlling one's actions requires the ability to distance oneself from the immediate experiences and emotions.

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[43] Dominik Perler, "Why Is the Sheep Afraid of the Wolf? Medieval Debates on Animal Passions," in Emotions and Cognitive Life i*n Medieval and Early Modern Phi*losophy, edited by M. Pickavé & L. Shapiro (Oxford: Oxford UP, 2012) , 32–52. See, e.g., Albertus Magnus, *De Anima* ed. A. Borgnet, B. Alberti Magni Opera Omnia 5 (Paris: Vivès, 1890), liber 3, tract. 1, c. 3, 319; Thomas Aquinas, *Quaestiones disputatae de veritate*, in *Sancti Thomae de Aquino Opera omnia iussu Leonis XIII P.M. edita* 22.3 (Rome: Ad Sanctae Sabinae, 1973), q. 24, a. 1, 680–81.

[44] Sara Heinämaa et al., "Introduction," in *Consciousness: From Perception to Reflection in the History of Philosophy*, ed. S. Heinämaa et al., Studies in the history of philosophy of Mind 5 (Dordrecht: Springer, 2007), 1–26. See also Toivanen, *Perception and the Internal Senses*, 173–75.

[45] See, e.g., Summa II q. 58, 506 (a dog that dreams); ibid., q. 63, 601 (a dog that learns); ibid., q. 62, 588–89 (an animal that opens eyes in order to see). Aquinas points out in *ST* II-1.26.1 that animals differ from inanimate nature because their desires follow apprehension, and that human beings differ from animals because their desires follow apprehension in such a way that there is a possibility of rational control. He does not think that the crucial difference would be awareness. See also *ST* II-1.6.2; Thomas Aquinas, *In Met.* 1.1.13.

It is easy to overestimate the significance of the lack of self-awareness in animals, however. Even though medieval philosophers denied to animals a certain kind of intellectual self-awareness, at least some of them were ready to claim that animals are aware of themselves in a more simple way. Such an idea was suggested by Peter Olivi, who argued that animals are aware of their own bodies and the mutual importance of their body parts:

> When a dog or a snake sacrifices one of its members in order to save its head or sacrifices some part in order to save the whole, then it prefers the whole over the part and the head over the other member. Therefore, these animals must have some common power which shows both extremes simultaneously, their mutual comparison, and the preference of one over the other—although it does not do this with the same fullness and degree of reflective judgment as does the intellect.[46]

Olivi's point is that animals appear to protect their vital parts at the expense of other members when they are threatened. A dog avoids being hit in the head by averting a blow with its paw, for instance, and this ability shows that it is on some level aware that the paw is of lesser importance to its well-being than the head. Later Olivi explains that animals are aware of the mutual importance of their body parts because their common sense can turn towards itself in an incomplete way.[47] The distinction between intellectual self-awareness and self-awareness that can be attributed to animals boils down to a difference between having explicit awareness of oneself as a cognitive subject (i.e. taking one's mind as an object of a cognitive act) and being aware of oneself as a living, cognitive and bodily being and a subject of one's cognitive acts. Animals cannot turn their attention to their minds as objects, but the fact that they try to preserve themselves in existence and avoid all kinds of harms calls for some kind

[46] Summa II q. 62, 587.
[47] Summa II q. 62, 595 & q. 67, 615–16.

of self-awareness. Certain kinds of action cannot be accounted for without appealing to primitive self-awareness.[48]

4. Morality

As animals were considered to have a rather sophisticated cognitive life, one might expect that medieval philosophers would have raised questions concerning their moral status. Morality was, after all, closely related to psychological considerations. However, they usually did not draw the conclusion that the commonalities between humans and animals would give a reason to treat animals more benevolently. The treatment of animals was not considered in moral terms, and the moral status of animals was not seen as a philosophical problem that needs to be treated in any explicit manner. Thus, in order to get a hold of the moral status of animals in medieval philosophy, it is necessary to do some interpretative work and read between the lines. One should also keep in mind that there is not much modern research on the moral status of animals in medieval philosophy, and therefore the following points should be taken as preliminary proposals rather than final results.

With this caveat in mind, we may nevertheless approach animals and their relation to morality by using a threefold heuristic model, which helps us to understand how multifaceted the medieval philosophical and cultural imagery of animals was. Animals can be considered as moral agents, moral patients, or moral examples.

(1) The first perspective concerning moral agency is by far the clearest of the three. Medieval philosophers were unanimous that animals are not moral agents in the proper sense of the word. The rationale behind this view was that moral action requires psychological freedom. Human beings are moral agents because they have a free will (*liberum arbitrium* or *libera voluntas*) by which they are capable of choosing their actions. The will was understood

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[48] See Juhana Toivanen, "Perceptual Self-Awareness in Seneca, Augustine, and Olivi," *Journal of the History of Philosophy* 51:3 (2013): 372–79.

as a power of the soul, as a rational appetite or desire, which enables human beings to detach themselves from their immediate emotional reactions and act instead on the basis of rational considerations. Obviously the way in which this idea was articulated and conceptualized varied from author to author—especially significant was the opposition between intellectualism and voluntarism, which developed in the late thirteenth and early fourteenth centuries[49]—but all accepted that the type of freedom that is required for moral agency comes only with the rational soul.

Without free will, animals are bound to follow their emotional reactions. The behavior of animals is principally caused by desire for self-preservation and pleasure as well as avoidance of harm, which give rise to a variety of emotions: love and hate, desire and aversion, joy and sadness, fear and hope, and so forth.[50] Emotions were considered to be psychophysical phenomena, which involve movements of the animal spirit and the heart but which also include a cognitive element, and they were generally considered to be common to human beings and animals.[51] When an animal perceives an object that is either useful and pleasant, or painful and harmful to it, one of its internal senses, the estimative power, apprehends this affective aspect and triggers an emotion. To use the typical medieval example that we already saw above, when a sheep perceives a wolf, its estimative power evaluates the wolf as harmful and dangerous, and this evaluative perception gives rise to the emotion of fear. The actions of the sheep are ultimately caused by emotions, and in this case the fear makes the sheep flee the wolf.[52]

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[49] See Tobias Hoffmann, "Intellectualism and Voluntarism," in *Cambridge History of Medieval Philosophy*, ed. R. Pasnau (Cambridge: Cambridge UP, 2010), 414–27.
[50] Again, the classification of various emotions varied from author to author. See Simo Knuuttila, *Emotions in Ancient and Medieval Philosophy* (Oxford: Clarendon Press, 2004), 177–255.
[51] Aquinas, for one, thinks that evaluative perception is the formal cause of an emotion. See Peter King, "Aquinas on the Emotions," in *The Oxford Handbook of Aquinas*, ed. B. Davies & E. Stump (Oxford UP, 2012), 214–15. For a detailed study, see Stepn Loughlin, "Similarities and Differences between Human and Animal Emotion in Aquinas's Thought," *The Thomist* 65 (2001): 45–65.
[52] *ST* I.81.3. For medieval discussions, see Perler, "Why Is the Sheep Afraid of the Wolf?", 32–52.

A crucial aspect of this general medieval view is that the sheep does not have control over its flight, because it is not psychologically free. The emotional responses of animals are automatic and instinctual in the sense that all individuals of the same species react uniformly to similar stimuli. Human beings, by contrast, are able to prevent the emotion from turning into action.[53] Animals can be habituated to some extent, but even then they do not exercise direct control over their actions. Rather, their emotional reactions are modified by training, and this modification counts as indirect control at most.[54] It is precisely because animals lack the ability to control their action when confronted with emotional situations that they are not moral agents. They cannot exert cognitive control over their emotions like human beings do, which means that they are not morally responsible for their actions.[55]

In spite of this, medieval times witnessed a practice of prosecuting animals in courts of justice. On the basis of the extant records of these legal procedures it may seem that animals were considered to be legal persons, who can be held responsible for their actions—after all, the procedures were not simply ceremonial, as there are cases in which the prosecuted animals were acquitted. However, it is unclear what we should think about this practice. One possible explanation for the apparent conflict (between the idea that animals are not responsible for their actions and the idea that they can be held accountable for them) is to say that there is a distinction between legal and moral responsibility, which means that animals could be held legally responsible even though they are not moral agents properly speaking. However, we do not know enough of the rationale behind these processes to make definite conclusions, and the only thing we can be fairly confident about is that these records

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[53] See note 43 above.
[54] *ST* II-1.50.3 ad2; King, "Aquinas on Emotions," 215–16.
[55] See, e.g., *ST* II-1.6.2 ad 3.

reveal an understanding of the status of non-human animals that differs radically from our own.[56]

(2) Another question concerning the moral status of animals pertains to their role as moral patients. One might think that because animals were seen as sentient beings with rather complex mental lives, they would have enjoyed some kind of moral worth and that their treatment would have been regulated by morality. However, this concern was not central in the Middle Ages. Philosophers did not ponder whether animals should be treated in a special way due to their sentience. Thomas Aquinas, for instance, denies any intrinsic value to animals and thinks that irrational beings are not proper objects of moral concern. Killing an animal is wrong only if it happens to be someone else's property, and the only reason to refrain from cruelty to animals is that it may incline the perpetrator to do the same to other humans.[57]

This does not necessarily mean, however, that animals may be treated in just any way we please. Several medieval authors (including Aquinas) accepted Ulpian's definition of natural law, which they found in an influential collection of Roman law, *Corpus iuris civilis*: "Natural law (*ius naturale*) is that which nature has taught to all animals; for this law is not specific to mankind but common to all animals, which are born in land and sea, and also to birds [...] because we see that other animals, wild beasts included, are rightly understood to be acquainted with this law."[58] This definition suggested that animals participate in the general moral order that regulates the whole creation. Medieval authors were not particularly interested in explaining how animals follow the natural law, and when they took a stand on the issue, they were happy just to say that animals do this by a natural instinct and

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[56] All modern studies concerning these cases are based on E.P. Evans' pioneering work, which was published more than a hundred years ago (*The Criminal Prosecution and Capital Punishment of Animals* (London/Boston: Faber and Faber, 1987; originally published by William Heinemann, London: 1906)).

[57] *ST* II-2.64.1; Thomas Aquinas, *Liber de veritate catholicae Fidei contra errores infidelium seu Summa contra Gentiles*, ed. P. Marc, C. Pera, P. Caramello (Torino: Marietti, 1961), 3.112.

[58] *Corpus iuris civilis,* vol. 1, *Digesta*, ed. T. Mommsen, retract. P. Krüger (Berlin 1908; reprint Hildesheim 1993), 1.1.1.3–4.

automatically.[59] This solution obviously leaves many questions open, but it nevertheless shows that the behavior of animals, and the kind of life that is natural for them, was conceptualized in legal and moral terms.

The term *ius* was also employed to denote what we know as a subjective right. A famous proponent of this approach, Jean Gerson (1363–1429), argued that even though rights in a proper sense belong only to rational beings, all creatures have subjective natural rights in a broad sense: the sun has a right to shine, birds have a right to build nests, and so forth.[60] Although this concession does not necessarily imply that preventing animals from following their natural inclinations would be a moral issue—that is, the rights of animals are not claim rights—it is significant that Ulpian's definition was not rejected outright. Animals may not have rights in the same sense as we do, but the language of rights can be applied to them nevertheless.

Whether medieval authors took animals as mere instruments, which can be used to benefit humans without any constraint, is a complicated question. Medieval authors approached this question in the context of a passage from Aristotle's *Politics*, which suggests that plants exist for the sake of animals, and that animals exist for the sake of human beings.[61] Regardless of whether Aristotle meant this claim to be taken literally, medieval philosophers were eager to accept it, partially because they found a similar (but not necessarily identical) suggestion from the first book of *Genesis*, where humans are given a dominion over all creation. Yet, they felt the need to ask whether it is true that animals and plants exist for the sake of humankind, and although they gave a positive answer, sometimes it was pointed out that there are limitations to the use of animals. So, for instance Nicholas of Vaudémont, a

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[59] *ST* II-1.91.2.
[60] Jean Gerson, *Oeuvres Completes*, vol. 3, ed. P. Glorieux (Paris, 1962), 141–2; Annabel Brett, *Liberty, Right and Nature: Individual Rights in Later Scholastic Thought* (Cambridge: Cambridge UP, 1997), 83–85.
[61] *Pol.* 1.8, 1256b7–26. Henry cross-ref? XXX

fourteenth century Parisian arts master—after claiming that plants and animals can be used to satisfy the needs of humans (food, clothing, etc.)—argues that:

> From this it follows as a corollary that if someone appoints plants and animals to any other end than to maintaining human life, he does not use but abuses them. This is clear, because when someone appoints something to an end that is not proper to it, he is said to abuse that thing. Secondly, it follows that if a human being uses plants or brute animals more than is sufficient, he is said to abuse them just like the first one.[62]

Animals may be used to sustain human life, but Nicholas argues that there is a limit in using them. They should not be abused by seeking anything that goes beyond the necessities of life. Nicholas appears to put his argument in moral terms by claiming that even though human beings have right to use animals, we should not do this more than is absolutely necessary. The argument is surprising, but on the other hand, medieval philosophers believed that although human beings were created to rule other animals, they were also given the task of taking care of God's creation, and the permission to eat animals was received only after the great flood—it was not the practice in the original state of mankind[63]. Moreover, as we have seen, medieval authors were far from conceiving animals as metaphysically equal to lifeless instruments. To what extent this metaphysical difference, or the psychological abilities of animals, implied anything concerning their moral status is not so clear. Despite of Nicholas' concession, animals were not typically considered as moral patients. When the abuse of animals was criticized, the implication usually was that acting cruelly toward animals corrupts the person who is acting and disposes him to act cruelly toward other human beings.

(3) Regardless of their intrinsic value (or the lack of it), animals bear moral relevance in medieval thought in a special way: they were widely used as moral examples. Medieval

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[62] Nicholas of Vaudémont (pseudo-John Buridan), *Questiones super octo libros Politicorum*, reprint of Paris 1513 edition (Frankfurt: Minerva, 1969) (hereafter *QPol*), fol. 14ra.
[63] *Gen.* 9.2-3.

bestiaries follow the ancient tradition and provide not only descriptions of various species of existent or imaginary animals but also accounts of moral lessons that human beings can learn from them. Different animals represent different virtues allegorically and serve as examples for proper conduct. Certainly the point was not that animals would be more virtuous than human beings, because moral virtue is possible only for rational beings. Rather, animals were thought to be created so as to instruct human beings in moral and religious matters.[64]

Another way in which animals served as moral examples is related to the idea that despite their rationality, human beings are also animals. This affinity with other animals and the idea that morality requires us to control our impulses, which stem from our animal nature, meant that animals are like images of what human beings become if they fail to live up to moral standards. We saw something of this already in section one, when we encountered the claim that human beings who fail to use their reason live the life of an animal. This idea was conceivable partly because animals were considered to be in many ways similar to human beings, a proposal with normative implications. Human beings who fail to control their lives in accordance to rational norms and morality are like animals. By looking at other animals we see what kind of lives those people live, who cannot control their emotional reactions. In this sense, animals functioned as a kind of mirror, “a moral other”, which enables us to see what morality requires of us. A person who follows his instincts and emotions without trying to take rational control over them, lives the life of an irrational animal and thus allows himself to be dominated by his own animality.

Yet, in one sense animals were considered to be better off than immoral human beings. Medieval philosophers emphasize, echoing Aristotle, that human beings who live in separation from other humans due to their deprived nature, are bestial and worse than brute

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[64] See, e.g., Debra Hassig, *Medieval Bestiaries: Text, Image, Ideology* (Cambridge: Cambridge UP, 1995). A good example is Thomas of Cantimpré’s *Bonum Universale De Apibus* (Douai: B. Belleri, 1627).

animals.[65] Sometimes they suggest that this is true only insofar as the cause for solitude is moral badness. Even vicious humans are better than beasts due to the perfection of human nature, but they are worst of all animals in a normative sense, just because they have the ability to transcend their animal nature.[66]

5. Conclusion

We have seen that medieval conceptions of the relation between animals and humans were multifaceted. The dividing line looks different when viewed from different perspectives. The metaphysical difference is radical and clear, but approaching the boundary only from a metaphysical perspective does not do justice to the complexity of medieval views. Psychological and functional perspective allows us to understand that animals were considered to be sophisticated creatures, which are in many respects close to us. Moreover, even though medieval philosophers usually did not consider the moral status of non-human animals as an important question, it is too simple to say that animals were seen simply as instruments to be used for the good of humans.

The foregoing discussion does not claim to be exhaustive, as it only scratches the surface of the views of a few medieval authors. Moreover, I have concentrated on philosophical texts and philosophical conceptions, thereby leaving aside the rich historical material that could be used to reveal medieval attitudes to animals in religious, legal and medical contexts, as well as in everyday life. The philosophical discussions show, nevertheless, that medieval conceptions of animals share at least one feature: they depict animals as complex creatures. Philosophers were far from thinking that animals are different

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[65] See, e.g., Thomas Aquinas, *Sententia libri Ethicorum,* cura et studio fratrum praedicatorum, *Sancti Thomae de Aquino Opera omnia iussu Leonis XIII P.M. edita* 47/2 (Rome: Ad Sanctae Sabinae, 1969), 7.5, p. 399-400. Aquinas mentions that these people may eat human flesh; on the philosophical implications of cannibalism see Cecilia Muratori's contribution below.

[66] Nicholas of Vaudémont, among others, appeals to various senses of 'being worst' which are based on a distinction between moral badness and "natural" badness. See *QPol* 1.5, fol. 6vb–7ra.

from us in *all* respects, and the idea that they might be unconscious machines never occurred to them. They attributed a great deal of complexity to animal psychology, and they were able to use animals as the "other" to which human beings can be compared just because animals were considered to be similar to us, yet different in certain relevant ways. Due to this fundamental similarity, medieval philosophers were able to ask what makes human beings special among the rest of the animal kingdom.[67]

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Abbreviations

De animalibus	Albertus Magnus, *De animalibus libri XXVI*
In Met.	Thomas Aquinas. *In duodecim libros Metaphysicorum Aristotelis expositio*
QPol	Nicholas of Vaudémont (pseudo-John Buridan), *Questiones super octo libros Politicorum*
ST	Thomas Aquinas, *Summa Theologiae*
Summa II	Petrus Ioannis Olivi, *Quaestiones in secundum librum sententiarum*