

Material Souls and Degrees of Reasoning (John Buridan, Nicole Oresme)

Despite various differences, all of the thinkers we have examined so far – including Albert – agreed that there is at least one crucial difference between human and nonhuman animal souls. In their view, only human beings have rational souls or, more precisely, only humans possess *immaterial* intellectual faculties. For many of them, this lack of immaterial faculties is the main reason why nonhuman animals cannot reason. Even someone like Albertus Magnus, who ascribes certain basic forms of reasoning to nonhuman primates, leaves no doubt that these forms lack many features of intellectual reasoning, most importantly, universals or concepts, for universal cognition and concept formation usually require immaterial faculties (see Part 2). Consequently, those authors struggled with the question of how there can be human-like operations in souls whose nature is quite different from the nature of human souls. But what happens if one questions this difference? What if human and nonhuman souls are very much the same?

In the fourteenth century in particular, these questions were raised and addressed by authors such as John Buridan and Nicole Oresme. Both of them explicitly sympathised with the view that all souls, regardless of whether they belong to a human or a nonhuman animal, are ‘material forms’ (*formae materiales*). To be clear, neither Buridan nor Oresme declared this to be their own original position. Rather, they noted that it goes back to Alexander of Aphrodisias.¹ Nevertheless, both tried to find arguments in support of Alexander’s view.² This is not an easy task because the view that the souls of both human and nonhuman animal are material forms gives rise to various puzzles. For instance, in the field of theology, the question is how one can defend the immortality of the human soul if it is, as Buridan puts it, ‘extended, deduced from the potency of matter, generated, and corruptible like the soul of a dog or a donkey’.³ In psychology, this gives rise to the question of how one can

1 On the medieval reception of Alexander see Pluta (1996).

2 The most recent and comprehensive reconstruction of Buridan’s arguments is Klein (2016).

3 See, for instance, John Buridan, *Quaestiones de anima* (2nd compilation), Paris, Bibl. Nat., Cod. lat. 15888, f. 70ra, as quoted in Pluta (1996), 95f.: “In hac materia sunt tres opiniones magis famosae. Una fuit Alexandri, quod anima intellectiva humana est forma materialis,

coherently account for many of the obvious differences that exist between the cognitive powers of humans and nonhuman animals. For even if one says that many nonhuman animals act quite human-like, one cannot deny that humans excel other animals in many respects. But how does one account for many of the obvious differences in cognition if there is no obvious difference with regard to the souls' nature?

According to Buridan and Oresme, there is a relatively simple answer to this question. In their view, the rational souls of humans differ from the souls of other animals with regard to material complexion and complexity. The soul of a donkey is less complex a material form than the soul of a human being.⁴ This affects the soul's operations, and so the cognitive operations of a donkey's soul are less complex than those of a human soul. The cognitive capacities of donkeys, in turn, excel those of less developed animals, such as shellfish. Hence, material differences produce all kinds of cognitive differences across the animal kingdom. However, all species differ only 'gradually' (*gradatim*) from each other, as Nicole Oresme points out.⁵ In brief, the more complex the soul of an animal, the closer its capacities are to those of the human species. But still the question is, how close do other animals actually come to us? In particular, can they can reason as we can?

For Buridan, at least highly developed animals, such as nonhuman primates (*simia*), 'are capable of reasoning to some extent' (*quodammodo rationabiles*). But dogs and other nonhuman animals also 'reason and syllogise' (*rationantur et syllogizant*), although they reason not 'as subtly and completely' (*ita*

extensa et deducta de potentia materiae, generabilis et corruptibilis, ut est anima canis aut asini." For Aquinas, for instance, only nonhuman animals' souls are educed from matter; see Davids (2017), 63–67. On possible sources of Buridan's version of the Alexandrian doctrine see Hoenen (1993).

- 4 See *ibid.*: "Et dicebat hoc non debere negari propter magnam subtilitatem hominis vel eius ratiocinationem, quoniam hoc dicebat provenire ex nobilitate complexionis corporis humani vel ex nobilitate animae humanae super alias animas [...]." Actually, it is not entirely correct to say that the human soul is more *complex* because '*complexio*' simply refers to the material composition of the soul. Thus, a difference in complexion does not necessarily imply a difference in complexity. However, Buridan points to the 'nobility' (*nobilitas*) of the human soul which could refer to its complexity.
- 5 Nicole Oresme, *Expositio et quaestiones in Aristotelis De anima*, lib. III, q. 4, ed. Patar (1995), 335: "Et ideo videmus <quod> aliqua animalia imperfecta et modicae cognitionis nec discurrunt, sicut conchae marinae et talia huiusmodi. Et alia sunt perfectioris cognitionis, et alia adhuc perfectioris, et ita gradatim intantum quod aliqua videntur discurrere et habere notitias similes cognitionibus humanis, sicut sunt simiaeae [sic] aut talia animalia; tamen adhuc quantum ad hoc homo superexcedit omnia alia animalia."

subtiliter ac complete) as humans and nonhuman primates.⁶ The example he gives in this context is similar to the one presented by John Duns Scotus (see Chapter 19): a dog wants to go to its master, but since there is a pit blocking the road it cannot take the most direct way. Therefore, it takes a detour in order to get to its master even though this way is much longer. While Scotus argues that the dog finds its way by means of a sensory appetite, Buridan claims that the dog ‘reasons and syllogises that falling into the pit is not good, therefore [one should make a detour]’. Thus, the dog does not follow its natural instinct but makes some sort of rational decision. Both its behaviour and the cognitive process triggering this behaviour resemble, and may even be the same as, the behaviour and cognition of a human being.

There is obviously at least one serious objection that can be raised against Buridan’s theory, namely, the objection that his description of the dog’s cognition is unnecessarily anthropomorphic. Even if one agrees that a *human* being would take a detour on the basis of reasoning, one cannot infer from our *human* cognition to the cognition of *nonhuman* beings. Even though dogs and other animals might be clever animals too it seems strange to say the dog’s solution to the above-mentioned problem is the result of syllogising. One could even argue that it is incoherent to make such a claim because, as we have seen in Chapter 12, Buridan denies the capacity of concept formation to nonhuman animals. Consequently, it seems inconsistent to claim that the dog forms a premise such as ‘Falling into the pit is not good’ because this presupposes the capacity to form and arrange concepts such as ‘pit’, ‘good’, ‘falling’, and so forth.

It seems that Buridan would actually agree with this. He would agree that the dog does not actually form premises and conclusions like we do, primarily because it does not possess concepts such as ‘pit’ or ‘good’ and so forth. Hence, if we describe or formalise the dog’s reasoning in the same way in which we would describe our reasoning, we do indeed anthropomorphise its cognition. But the actual point Buridan wants to make here is that it is similarly flawed to argue that the dog’s soul is essentially different from our soul. For how could this be proven? If we try to prove it by referring to the things we can do in

6 See *ibid.* and John Buridan, *Quaestiones de anima* (2nd compilation), Paris, Bibl. Nat., Cod. lat. 15888, f. 70ra, as quoted in Pluta (1996), 95f.: “[...] sicut dicemus simiam <esse> ingeniosam super cetera animalia et quodammodo esse rationabilem, immo et canes et alia animalia ratiocinantur et syllogizant, quamvis non ita subtiliter ac complete sicut homo vel simia. Quod apparet, quia, si canis videt dominum suum et vult ire ad ipsum et in directa linea inveniat magnam foveam, non intrabit in illam, sed quaerit aliam viam, licet longiorem, quod non faceret, nisi ratiocinaretur et syllogizaret, quod non est bonum cadere in foveam et cetera.” On this see also Pluta (2015), 281–283.

comparison to the things dogs can do, we are likely to fail because any difference can be explained by some material difference, as noted above. Therefore, Buridan makes a suggestion which could be summarised as follows: instead of denying the capacity of reasoning to other animals, one could speak of different *degrees of reasoning*. While our reasoning is quite 'subtle and complete', the reasoning of dogs is less so. Nonetheless, the dog is reasoning, and the degree of subtleness or completeness of its reasoning depends on the complexion and complexity of its soul. This also applies to other animals: monkeys, for instance, are even smarter than dogs, whereas shellfish are comparatively dumb.

Like Buridan, Nicole Oresme also states that some of the higher animals 'seem to think and seem to have cognitions similar to human kinds of cognition' (*videntur discurrere et habere notitias similes cognitionibus humanis*). And like Buridan (and Albert), he stresses the particular position of primates (*simiae*).⁷ Because of their human-like 'physiognomy' (*physiognomia*), he says, their psychology is very likely to be human-like, too. However, man's exceptional position remains uncontested insofar as only humans possess the capacity to communicate by language. In Oresme's view, this has a huge impact on the capacity of reasoning, because without linguistic vehicles one cannot reason properly. From what he says in this connection, it is not entirely clear whether he actually thinks that nonhuman primates can 'reason' (*ratiocinari*) because he says that 'if they could speak, they would reason like humans' (*si possent loqui, ratiocinarentur sicut homines*).⁸

This passage could, on the one hand, be understood to mean that language is a necessary prerequisite for reasoning. Consequently, creatures without language cannot reason. On the other hand, one could also read Oresme as claiming that if nonhuman primates had language, their reasoning would be as perfect as human reasoning. Nonetheless, they do engage in reasoning even though their reasoning is inferior to human reasoning in the sense that it is a non-linguistic form of reasoning. No matter which reading is to be preferred, it is clear that neither the position of Nicole Oresme nor that of John Buridan comes at the price of giving up man's exceptional position. Man's standing on top of the ladder of beings (or animals, more precisely) remains undisputed.

7 See n5 above.

8 See Nicole Oresme, *Expositio et quaestiones in Aristotelis De anima*, lib. III, q. 4, ed. Patar (1995), 335: "Unde, quia exterior figura quodammodo est signum dispositionis interiorum, ita de physiognomia: inde est quod in quibusdam illa animalia quae magis accedunt ad similitudinem hominis quantum ad figuram sunt maioris industriae, sicut dicebatur de simeis intantum quod videtur aliquibus quod, si possent loqui, ratiocinarentur sicut homines, quavis tamen in quibusdam ita perfecte."

But unlike the other thinkers covered in this part, they do not consider this special position to depend upon the immateriality of the human soul. Instead, they argue that cognitive superiority is a matter of material complexity. This argument might strike one as problematic since it seems to blur the lines between humans and nonhuman animals. For if we say that other animals reason too we give up human privilege with respect to this power. Reasoning is no longer a peculiar human capacity then, or reasoning is at least no longer what makes humans a peculiar species of animals.

To this Buridan and Oresme would possibly respond that *human* reasoning is still a peculiar form of reasoning for many of the above-mentioned reasons: it is linguistic, more subtle, etc. Furthermore, humans reason about all kinds of matters, practical as well as theoretical, while the reasoning of dogs, non-human primates, and other animals is mainly practical and relatively simple. Nonetheless, it counts as a form of reasoning because all reasoning, regardless of whether it takes place in a human or in a nonhuman soul, is 'material reasoning', as one could call it. Reasoning (or proper reasoning at least) is not dependent on the immaterial nature of certain faculties. This theory creates serious theological problems, as has been mentioned, because it could potentially threaten the special status of human beings, especially as regards the immortality of their rational souls. But as far as psychology is concerned, it has an obvious strength: it can easily account for many human-like behaviours in nonhuman animals because most, if not all, kinds of human capacities can, in one way or another, be found in other animals, too.

As we have seen in this part, one can also give alternative explanations for such behaviours. One can, for instance, say that they are brought about by some natural inclination or by sensitive appetite, as Thomas Aquinas and John Duns Scotus claim. Or one can, like Roger Bacon and Albertus Magnus, argue that they are the results of processes taking place in the cogitative power or in some 'shadow of reason'. Regardless of which explanation one prefers, it has become clear that they constitute different ways of dealing with the behaviours of those animals that by definition lack the faculties of intellect and reason. As we have seen, there are at least some late medieval thinkers for whom this lack does not necessarily imply the incapacity to engage in reasoning, despite the differences that exist between the reasoning of human and nonhuman animals. This does not mean that these thinkers present a more coherent account of animal rationality than others. It simply means that they chose a different approach. We shall take up the differences that exist between their approaches in Part 6.

Before that, we will, however, examine another aspect of animal rationality, namely, prudence. Unlike concept formation, judging, and reasoning, prudence is not a part of the triad of intellectual operations. Nonetheless, it

gave rise to very similar questions because, on the one hand, prudence seems to require intellect and reason, since acting prudently usually means to act with foresight or planning. But, on the other hand, nonhuman animals exhibit various kinds of prudent behaviours, for example, insofar as they store food for the future. Hence, the question is: Can they be prudent at all and, if so, are they as prudent as we are?