

# 10

## A DIFFERENT KIND OF MIND?

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### 1 Introduction

Aristotle famously characterized human beings as animals whose soul contains a rational principle, and Scholastic philosophers codified this idea in the classical definition of man as a rational animal.<sup>1</sup> It is clear that authors writing in this tradition meant to claim, not just that rationality is a characteristic trait of humankind, but that it sets us apart from other animals in a fundamental way. This is indicated in the traditional way of representing Aristotle's picture of the natural order, the so-called "Porphyrian Tree" (Figure 10.1).

The fact that rational animals appear on a separate branch of this tree reflects the classical doctrine that we rational animals are not just another *species* of animal but a different *kind* of animal, one whose distinctiveness constitutes a new category of animality. Since the Aristotelian tradition thought of animals in general as distinguished from other living things by their possessing what we would now call *mental* capacities (specifically, capacities for perception and voluntary movement), we may express the Aristotelian view – anachronistically but not inaccurately – by saying that we rational animals have a *different kind of mind* from other animals.

This view of human mentality was dominant for millennia, but these days it is the object of mounting skepticism. No one doubts, of course, that there are many significant differences between human minds and the minds of other animals, but a number of well-known results in comparative psychology and cognitive science appear to cast doubt on the idea of a single, categorical difference. For on the one hand, many animals traditionally classified as "nonrational" behave in ways that plainly reflect considerable intelligence and representational sophistication. And on the other hand, we "rational animals" prove on examination to be a good deal less rational than we would like to think, exhibiting systematic tendencies to accept unsound inferences, make unreasonable choices, and give confabulated rationales for our own beliefs and actions.

Before taking sides in this dispute, however, we should ask what the classical doctrine means. In the first place, what is "rationality"? In spite of its familiarity, this notion is somewhat obscure. There are, of course, various well-known claims about the distinctive capacities of rational animals: that only they can speak a language, engage in conceptual thought, draw inferences, understand the difference between right and wrong, etc. But these allegedly distinctive attributes are presumably meant to be consequences of a more basic cognitive difference, not parts of

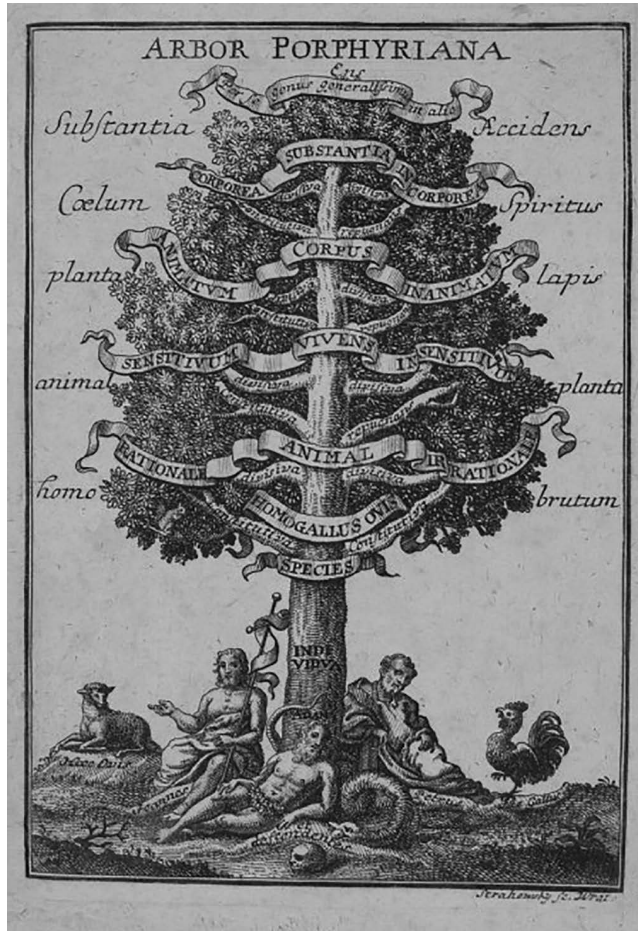


Figure 10.1 Porphyrian Tree by B. Strahowsky (1750), National Library of Poland

the definition of rationality itself. And in any case, one’s answer to the question of what counts as speaking a language, drawing inferences, etc. is liable to be affected by one’s view about the nature of rationality. If the capacity for inference is taken to be distinctive of rational animals, for instance, then where one draws the line between genuine inferences and noninferential cognitive transitions will depend on one’s view of what makes a transition between representations genuinely rational in character. So our problem is to understand what rationality itself is, and this is not immediately clear.

Moreover, whatever rationality is supposed to be, it is unclear what might be meant by the claim that rational minds differ “in kind” from the minds of other animals. After all, there are many significant differences among the cognitive capacities of animal species: some possess the capacity for pattern recognition, others for episodic memory, still others for metacognition, etc. If every difference in cognitive capacities entails a difference between kinds of minds, then kinds of minds are cheap, and the claim that rational minds differ in kind from nonrational ones loses its special interest. But if not just any such difference entails a difference between kinds of minds, then what is our criterion for a difference “in kind”? Again, the answer is not obvious.

It is common in the popular press, and also in some scientific and philosophical work, for discussions of whether rational minds differ in kind from nonrational ones to take a position in this dispute without giving much attention to these preliminary questions. My focus here, by contrast, will be exclusively on the preliminaries: what rationality is, and what could be meant by the claim that its presence gives rise to a different kind of animal mind. I aim to give a brief and opinionated sketch of what the claim that rational minds differ in kind from nonrational ones could mean, and how it could be motivated. In answering these questions, my primary concern will be, not to capture the views of any particular historical advocate of the difference-in-kind thesis, but to indicate what I take to be the most plausible and interesting understanding of this idea.

## 2 What is rationality?

What, then, does it mean to call an animal “rational”?

In one sense, the term “rational” is applied to things that meet a certain normative standard. To call an act rational in this sense is, roughly, to say that it is well-proportioned to available reasons, and to call an agent rational is to say that she is disposed to perform such acts. When Aristotelian philosophers defined human beings as rational animals, however, this normative sense of rationality was surely not the one they had in mind. They did not intend to claim that human beings are distinctively *successful* at acting in ways well-supported by reasons: they were well aware that humans pay heed to reasons only very imperfectly, and can easily be swayed by nonrational forces. They intended to claim, rather, that human beings are, in a distinctive way, *capable* of acting from an appreciation of reasons (where acting is understood to include not only moving one’s body but performing cognitive acts such as judging, inferring, and so on). Thus, Aristotle thought of rational animals as possessing a distinctive kind of capacity (a *dunamis meta logou*: a capacity imbued with reason), and he distinguished between merely acting *in accordance with* the right reason (*kata ton orthon logon*) and acting *from* the right reason (*meta tou orthou logou*).<sup>2</sup> A rational capacity is a capacity to act, not just in ways that are in fact supported by reasons, but from an appreciation of reasons.

To say that human beings are rational animals in this capacity-oriented sense is to claim that our central animal capacities – those that guide and govern our particular kind of animal life when it goes well – have this character: that they enable us, not just to act in ways that are in fact supported by reasons, but to act *from an appreciation of* such reasons. It is not to claim that we exercise these capacities with any particular regularity, or that when we do exercise them, we generally do so well (i.e., in ways that are rational in the normative sense). So – contrary to what some critics assume – the claim that human beings are rational animals is not open to swift refutation by studies showing that humans are regularly or even systematically disposed to make judgments and draw inferences in ways that are not normatively rational.<sup>3</sup> Since the claim at issue concerns our cognitive capacities, not our cognitive dispositions or practices, there is no direct route from such observations to a disproof of the claim that human beings are rational animals.<sup>4</sup>

Can more be said to clarify the contrast between acting in ways that are supported by reasons and acting from an appreciation of reasons? A common way to introduce this contrast is to draw attention to the intuitive difference between engaging in an activity with understanding and engaging in it without understanding. Thus, a person who computes the result of  $12 \times 17$  by consciously applying a rule for solving multiplication problems understands why she gives the answer she does, but a person who reaches her answer through sheer numerical intuition, without grasping a rule that requires the answer she gives, lacks such understanding. Similarly, a

person who considers whether a certain bridge is safe and reaches a conclusion on the basis of observations she takes to support this conclusion understands why she draws this inference; but a person who simply becomes convinced that the bridge is safe without awareness of which facts persuade her does not draw a comprehending inference, even if her conviction in fact results from the very same observations. Rational capacities are capacities that enable their bearers to act with understanding in the way that conscious rule-following and comprehending inference exemplify.

In general, then, rational activities are characterized by a certain intelligibility from the subject's own perspective, an intelligibility that involves the subject's understanding *why* she acts as she does. The relevant sort of understanding, however, is not merely a collateral or *post facto* understanding. It is not merely that, if a subject S performs a rational activity A for reason R, S will *in consequence* be aware that R is her reason for A-ing. Rather, S's taking R to be a reason for A-ing must itself explain (in a characteristically rational way) S's A-ing.<sup>5</sup> It is the capacity for this kind of *directive* understanding – an understanding that is the ground of one's doing what one takes there to be reason to do – that distinguishes rational animals as such. In virtue of this capacity, they are intelligent in a special sense: their thoughts and actions can be guided by an assessment of reasons, and they can adjust their beliefs and actions by reflecting critically on such assessments.

To claim that only rational animals are intelligent in this sense is not to deny that nonrational animals may exhibit other very significant forms of intelligence. It is not to deny that they may show flexibility and creativity in finding means to their ends, draw on information acquired in one context when solving problems in another, different context, or make subtle adjustments in their beliefs in response to evidence. Though some advocates of the rational-nonrational distinction have made more ambitious claims, sensible defenders of this distinction should not maintain that only rational animals can exhibit these sorts of intelligence. They should claim, rather, that only rational animals can exhibit them *in virtue of being able to reflect on their own reasons for belief and action*. That rational animals can reflect on their own reasons for belief and action presumably explains why they show *greater* flexibility, creativity, and capacity for generalization than their nonrational brethren, but there is – to my knowledge, anyway – no sound argument for the claim that only beings who are capable of reflecting on their reasons in this sense are capable of forming beliefs and performing actions in a way that responds systematically to the rational significance of their perceptions, desires, etc. And indeed, there is strong evidence that many kinds of animals traditionally classified as “nonrational” can succeed at tasks that require the kinds of intelligence distinguished above.<sup>6</sup>

What it means to speak of an act as “guided by an appreciation of reasons” obviously needs further clarification. It is a main task of a theory of rationality to clarify this idea. Here it is only possible to note a few constraints on the needed clarification. In the first place, it is *not* a requirement on an act A's being guided by an appreciation of some reason R that the subject who does A should consciously think that R supports doing A. A person may do A because she takes R to support doing A without ever consciously considering whether R supports doing A, or whether she should do A for this reason. This reflects a general point about the relationship between taking P to be the case and consciously thinking that P: to take P to be the case is to be in a certain cognitive state, and such a state may obtain even if no conscious event of thinking that P ever occurs (though it may indeed be true that taking P to be the case disposes one to think that P if one considers the question whether P). Many rational activities (e.g., my just now reaching for my water glass because I was thirsty and believed there was water in it) occur without any conscious thought about what one is doing. The marks of my reaching's being a

rational activity – one guided by an appreciation of reasons – are that I understand my reasons for reaching, and that I would not reach if I did not take these considerations to speak in favor of my so acting.

It is also not a requirement on an act A's being guided by an appreciation of some reason R that the subject who does A should have command of concepts such as *is a reason for*, *is evidence for*, etc. It seems clear that a child might do A from an appreciation of reasons for doing A, or believe P in virtue of taking there to be evidence that P, well before she possessed these sorts of sophisticated concepts. And even for those of us who have mastered such concepts, what is essential to our appreciation of reasons is not our ability to think thoughts involving such higher-order concepts, but our ability to understand and respond relevantly to certain kinds of "why?" questions about first-order propositions we believe and actions we perform. If my decision to do A is challenged by someone who asks "Really, why do A?", I can understand what kind of response is being demanded – namely, one that identifies considerations that speak in favor of A-ing – even if I lack sophisticated concepts of rational appraisal such as *is a reason for*. Likewise, if my belief that P is challenged by someone who asks "Why accept P?", I may be able to respond relevantly to this challenge without possessing concepts such as *is evidence for*. To have the capacity to believe and act in ways guided by an appreciation of reasons consists fundamentally in a capacity to understand such questions (which one may put to oneself even when they are not put by another person) and to govern one's beliefs and actions according to one's satisfaction with one's own answers to them.

### 3 Interpreting the Difference-in-Kind Thesis

With this preliminary characterization of rationality in place, we can turn to the Aristotelian definition of human beings as rational animals. It is worth distinguishing three claims implicit in this definition. First, there is the basic claim:

*Classificatory Claim (CC)*: Human beings are rational animals.

In suggesting that (CC) can serve as a *definition* of human beings, Aristotelians also implied:

*Uniqueness Thesis (UT)*: Human beings are the only (mortal) rational animals.

Finally, their views about the structure of definitions by genus and differentia implied:

*Difference-in-Kind Thesis (DKT)*: Rational animals differ in kind from nonrational animals.

Critics of Aristotle's position often focus on (CC) or (UT), but it should be clear on reflection that (DKT) is the claim of greatest conceptual interest. (UT) seems to be a thesis that, if true, is merely a contingent fact: if there is such a thing as rationality, it should be possible for other animal species besides *homo sapiens* to exhibit it. As for (CC), if *homo sapiens* is a natural kind, and if being rational is an essential property of this kind, then (CC) may be a necessary truth; but if so, it is not a conceptual truth, but a substantive fact about the nature of this kind.<sup>7</sup>

(DKT), by contrast, is a claim, not about the cognitive capacities of any particular animal species, but about the conceptual relationship between two modes of being: being an animal and being a rational animal. (DKT) asserts that the difference between these modes must be understood in a certain way. What way is that? For the Aristotelian tradition, the notion of a

“difference in kind” has a specific meaning: it means that the concept *animal* is a proper *genus* (i.e., a proper kind), and that the modifier *rational* is a proper *difference* within this genus. A proper genus must be something that would be an appropriate and fundamental answer to the question about what a given thing *is*, rather than an answer to the question what it *is like* in some respect or other.<sup>8</sup> Thus, “animal” is a proper genus term, whereas a descriptive term such as “two-footed” is not. As for what counts as a proper difference, Aristotle says:

Not only must the common nature attach to the different things, e.g. not only must both be animals, but this very animality must also be different for each . . . For I give the name of ‘difference in the genus’ to an otherness that makes the genus itself other.<sup>9</sup>

That is, a proper difference in a genus *G* must be not merely a trait that some but not all *G*’s possess, but a characteristic whose presence *transforms what it is to be a G*. So if being rational differentiates the genus *animal*, it must, as Aristotle says, make the very animality of rational animals different from that of nonrational animals. And given that the Aristotelian tradition understands animality as defined by capacities of perception and voluntary movement, it follows that these capacities must take a distinctive form in rational animals.

We can get some grip on this idea by relating it to a much-discussed topic in recent philosophy of perception: whether the content of perception is “conceptual” (i.e., whether, in order for our perception to present things as being a certain way, it is necessary for us to possess the concepts required to specify how our perception presents things to be). A common argument for the nonconceptualist position is that nonrational animals can surely acquire information about their environment through perception, though they presumably do not possess the concepts required to specify how their perception presents things to be. Hence, it seems, acquiring information through perception cannot require possessing concepts.

This argument assumes, however, that if a nonrational animal can perceive without possessing appropriately related concepts, then the same must hold true of a rational animal. It assumes, in effect, that there is no fundamental difference between rational and nonrational perceptual capacities. This assumption is disputed by some contemporary conceptualists, for instance, by John McDowell, who writes:

If we share perception with mere animals, then of course we have something in common with them. Now there is a temptation to think it must be possible to isolate what we have in common with them by stripping off what is special about us, so as to arrive at a residue that we can recognize as what figures in the perceptual lives of mere animals . . . But it is not compulsory to attempt to accommodate the combination of something in common and a striking difference in this factorizing way . . . Instead we can say that we have what mere animals have, perceptual sensitivity to features of our environment, but we have it in a special form.

(McDowell 1994: 64)

We could call the sort of view McDowell recommends a *transformative theory* of rationality, since it takes the nature of our perceptual capacities themselves to be affected by the presence of rationality, in a way that makes rational perception different in kind from its nonrational counterpart.<sup>10</sup>

Transformative theories of rationality contrast with *additive theories*, which hold that the capacities which make us rational can be added to capacities for perception and voluntary movement that remain essentially similar to those of nonrational animals.<sup>11</sup> Nonconceptualists about

perceptual content typically hold just this sort of view. According to Gareth Evans, for instance, the content of perception itself is nonconceptual, but

we arrive at conscious perceptual experience when sensory input is not only connected to behavioral dispositions. . . – perhaps in some phylogenetically more ancient part of the brain – but also serves as the input to a *thinking, concept-applying, and reasoning system*; so that the subject’s thoughts, plans, and deliberations are also systematically dependent on the informational properties of the input.

(Evans 1982: 158)

Evans reserves the term “conscious perceptual experience” for perception whose informational content is made available to a special rationality system that forms conceptual representations and reasons about their significance. He assumes, however, that the “sensory input” taken up by this system is itself stored in a “nonconceptual” format, which means (given Evans’s usage) that the operations of the perceptual system do not themselves draw on the rationality system. Our perceptual system itself is supposed to be essentially similar to the perceptual systems of nonrational animals.

Versions of the dispute between additive and transformative theories of rationality can arise for any cognitive capacity shared by rational and nonrational animals. For any such capacity C, the additive position will hold that, even in rational animals, C is intrinsically independent of any distinctively rational capacities, so that its being “shared” with nonrational animals amounts to its being essentially similar to the corresponding nonrational capacity. The transformative position, by contrast, will maintain that rational animals possess C in a special form. What rational and nonrational animals “share”, on this view, is not a separable *factor* that is present in both, but a generic *structure* that is realized in different ways in the two cases. So the explanatory commitments of the two approaches can be diagrammed as shown in Figure 10.2.

The real question at stake in disputes about whether the minds of rational animals differ “in kind” from those of nonrational animals, I would suggest, is whether the cognitive differences by which we distinguish “rational” from “nonrational” animals are to be theorized in the way indicated by the diagram on the left or the diagram on the right (in Figure 10.2). (DKT) amounts to the claim that the right-hand diagram is correct.<sup>12</sup>

If (DKT) is true, then the difference between rational and nonrational animals is more closely analogous to the difference between animals and plants than to, e.g., the difference between animals with the capacity for echolocation and animals without this capacity. Bats, who can echolocate, have a capacity that distinguishes them from other animals, but recognizing this

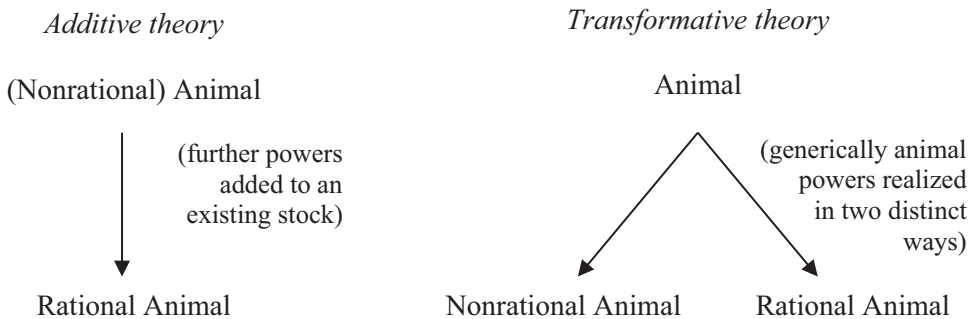


Figure 10.2 The structure of additive and transformative theories

distinctiveness does not require us to think of bats as characterized by a different kind of *animality* from non-echolating animals. But the difference between animal life and plant life does not merely consist in the presence of certain further capacities: what it is for an animal to be alive is – arguably – different from what it is for a plant to be alive. The difference here does not consist in an isolable capacity, but in a global transformation of the kind of living being that bears capacities. Advocates of (DKT) make a similar claim: that rationality does not merely add an isolable capacity to animal life, but globally transforms the nature of animal life itself. One might accept that human beings possess distinctively rational capacities, and that this sets them apart from other animal species, without accepting this claim of global transformation.

#### 4 Motivating the rational-nonrational distinction

A full theory of rationality would need to say more about all these topics, but I will turn in closing to a different question: how we might argue for a basic distinction between rational and nonrational cognitive capacities.

It might seem that the motivation for this distinction must take the form of an “inference to the best explanation” of the observed differences between the cognitive abilities of humans and other animals. Such a motivation would emphasize, e.g., the striking differences between human symbolic communication and nonhuman communicative behaviors, the contrasts between the complex and evolving institutions of human society and the relatively simple and constant forms of behavior that characterize nonhuman animal societies, etc. It would argue that only the presence of capacities to reflect on reasons can explain these fundamental differences.

Advocates of the rational-nonrational distinction will certainly regard such contrasts as reflections of the difference between rational and nonrational cognition, but they need not rest their case on such contrasts. For if human beings *are* rational animals, then each of us is in a position to recognize our own capacities to believe and act for reasons, not by observing human behavior and comparing it with the behavior of other animal species, but simply by reflecting on our own cognition and action. A rational animal, we said, is one capable of acting from an appreciation of reasons for acting. Hence, if we are such beings, when we exercise this capacity, we will be aware of our own reasons for acting, and so will be in a position to recognize, on reflection, that we possess the capacity to act from an appreciation of reasons. We can then frame the idea of a nonrational animal by abstracting from this capacity in ourselves and considering which kinds of animal capacities could remain in its absence. When we turn to survey the natural world, we may discover species of animal life that exhibit this other kind of mentality, but our case for the rational-nonrational distinction need not rest on such a survey.

Indeed, the primary interest of the rational-nonrational distinction does not depend on any concern with making comparisons between humans and other animals. The distinction is important because it helps us to define the specific character of our own cognitive capacities. Having drawn the rational-nonrational distinction, we are in a position to consider what it is to form beliefs and perform actions, not just automatically, but on the basis of an appreciation of reasons, and to ask whether animals with the capacity to act in such ways must have correspondingly distinctive capacities for perception and voluntary movement (i.e., whether (DKT) is true). These are projects, not of self-aggrandizement, but of self-understanding. The thesis that human beings are rational animals is significant, then, not because it would vindicate human “specialness”, but because it represents one of the most profound attempts to comprehend the basic character of our own capacities for thought and action, an attempt that enables us to formulate the fundamental question about how perception can supply us with knowledge and how thought can govern our actions.<sup>15</sup>



## Notes

- 1 For Aristotle's claim, see *Nicomachean Ethics* I.13 (1102a26–28), and cf. *De Anima* II.3 (415a8) and *Topics* II.5 (112a18–20). All quotations from Aristotle are from the translations in Aristotle 1984.
- 2 For the distinction between rational and nonrational capacities, see Aristotle, *Metaphysics* VIII.2. The distinction between acting in accordance with and acting from reason is drawn at *Nicomachean Ethics* VI.13 (1144b26–7).
- 3 See, for example, Stich 1985.
- 4 For further discussion, see Boyle 2012.
- 5 The phrase “in a characteristically rational way” is needed to rule out cases like Donald Davidson's imagined mountain climber, who wants to be rid of the weight and danger of the person she is belaying, suddenly thinks that she could simply let go of the rope, and is so shocked at having this thought that she loses her composure and lets go (Davidson 1980, p. 79). Here the climber takes the possibility of getting rid of the weight and danger to be a reason to let go of the rope, and this explains her letting go, but not in a characteristically rational way. How to characterize the normal way in which reasons explain action, and (relatedly) how to characterize the normal “basing relation” that connects belief with epistemic reasons for belief, are matters of controversy. For present purposes, however, what matters is simply that there are such characteristic forms of explanation.
- 6 For discussion of relevant evidence, see, for instance, the essays in Parts II–VI of Hurley and Nudds 2006 and many of the essays in this volume.
- 7 We shall see, however, that this substantive fact may have important implications for the epistemological basis of the rational–nonrational distinction.
- 8 Cf. Aristotle, *Topics*, I.4 (102a32–102b3).
- 9 Aristotle, *Metaphysics*, X.8 (1057b39–1058a7).
- 10 Note that one could accept this while rejecting many of the further claims that McDowell makes about perceptual content. One need not accept that the content of perception is restricted by the repertoire of concepts possessed by the perceiving subject, that it is propositional in structure, etc.
- 11 When I speak of a capacity C of a rational animal as “essentially similar” to the corresponding capacity of a nonrational animal, I mean that an account of how C functions need not itself appeal to distinctively rational powers, such as the power of conceptual representation or comprehending inference (supposing, as many authors do, that these powers are distinctive of rational creatures). Obviously there can be tremendous variation in how (e.g.) animal perceptual capacities function, but all such capacities will count as essentially similar in my sense so long as their functioning does not itself draw on any specifically rational abilities.
- 12 For further discussion, see Boyle 2016.
- 13 I'm grateful to Jake Beck for comment on an earlier draft.

## Further reading

Aristotle's *De Anima* and *Nicomachean Ethics* (in Aristotle 1984) are classic expressions of the idea that human beings differ in kind from other animals in virtue of their rationality. For recent critical discussion of this idea from an empirically informed perspective, see the essays collected in S. Stich, *Knowledge, Rationality, and Morality* (Oxford: Oxford University Press, 2012). An influential defense of the rational–nonrational distinction is D. Davidson, “Rational Animals”, *Dialectica*, 36:4 (1982), pp. 317–327. Hurley and Nudds 2006 is a collection of essays on the topic with contributions from philosophers and scientists.

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