Are Humans the only Rational Animals?

1. Introduction

The issue: Many philosophers have suggested that rationality is what sets apart humans from other animals. Yet, cognitive ethologists and other empirical scientists commonly describe the behaviour of non-human animals as rational.

Question 1: What is the notion of rationality in play?

Question 2: How can we check whether the relevant notion of rationality applies to human and non-human animals alike?

1. Addressing Q1: varieties of rationality

**Non-psychological notions**

Biological rationality: behaviour which is adaptive or conducive to survival is rational. (Dawkins 1986, Kacelnik 2006: § 2.4) [eye-blink; leopard frog]

Economical rationality: behaviour which maximises utility is rational. (Kacelnik 2006, Stephen and Krebs 1986) [foraging of starlings and redshanks]

Intentional stance: behaviour explained by states of information that, *at some level*, may be described as beliefs and desires count as rational. (Dennett) [thermostats]

These three notions of rationality apply to behaviour which, *at the individual level*, is best explained without appealing to the content of psychological states of agents. The notion of rationality that matters for assessing the claim that only humans are rational, by contrast, applies primarily to behaviour that is motivated by the content of the agent’s psychological states.

Example: catching the ball vs the many bodily adjustments involved in catching the ball.

**Psychological notions**

Rationality as responsiveness to reasons: beliefs and actions that results from the agent’s response to available reasons is rational.

Example: Jack and Jill.

Responsiveness to reasons 1 (unreflective rationality): beliefs and actions which are sensitive to relevant facts about the environment and to one’s psychology (i.e. the available reasons) are rational. (Dretzke 2006, normative externalism)

Denying rationality to non-human animals in this sense requires denying that they have intentional states, or that they act on the basis of them.

Responsiveness to reasons 2 (reflective rationality): beliefs and actions which result from reflective assessment ofone’s reasons are rational.

This is the relevant notion:

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…In virtue of this capacity, [rational subjects] 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. (Boyle 2018: 112)

1. Addressing Q2: Epistemic thinking

**What does it take to respond to reasons reflectively? Looking at one’s reasons *as reasons***

NOT:

* Consciously thinking that reasons R supports believing P or doing A. [Example of inferential belief.]
* Command of concepts such as is <reason for> <evidence for>. [Theoretically loaded concepts: very few people, if any, have a full command of them.]

RATHER:

* The capacity to individuate reasons, and assess the normative link they have with some action or belief.
* Adult humans do so when they answer “why?” questions. [BBC example.]

Thinking about one’s reasons as a form of higher-order thinking.

**Epistemic higher-order thinking**

Epistemic concepts: They represent features of the epistemic activity of agents. Examples: <evidence>, <reliability>, <knowledge>, <truth>.

First-order epistemic thinking: produces a doxastic attitude (belief, disbelief, suspension of judgment) towards a proposition P without involving the processing of any epistemic concept. [e.g.: <grass is green>]

Higher-order epistemic thinking: produces a doxastic attitude (belief, disbelief, suspension of judgment) towards a proposition P through the processing of some epistemic concept. [e.g.: <that guy is unreliable>]

**Testing epistemic higher-order thinking in non-linguistic agents**

Goal: observe action or behaviour that is best explained by invoking the suggestion that they have entertained a thought which included an epistemic concept. E.g: <the evidence is misleading>, <the source of information is unreliable>.

Rough idea:

1. Expose agents to a reliable and an unreliable source of information
2. Check that they are sensitive to the difference (say, by more convincingly following the indications of the reliable source than those of the unreliable ones)
3. Expose them to the unreliable source in a new context: if they exhibit immediately considerable hesitation in following the new suggestions, we would have reason to think that they have processed a thought like <the source of information is not unreliable>
4. Conclusion: Back to reflective rationality

Suppose that we will find evidence of processing of epistemic concepts in non-human animals. What would that show?

* NOT that they can have thoughts about thoughts or about someone’s beliefs (e.g. <proposition P is false>, <my belief was not reliably formed>).
* However, a thought like <the source of information is not reliable> goes beyond first-order thinking (in the epistemic sense).
* It may suggest that the difference between human and animal rationality is one of degree, not kind.