

# Practical Animal Reasoning

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## Abstract

In his latest paper on animal agency, Glock (2019) presents a series of arguments to the extent that non-linguistic animals are capable of acting rationally and for reasons. This notwithstanding, he still denies them the ability to conceptualise reasons *as* reasons. I will argue that, in using Glock's account, one *can* in fact claim that non-linguistic animals are capable of conceptualising reasons as reasons. For this, I will apply Glock's own criteria for concept-possession to the concepts of a *reason* and of *intention*. My argument will thus be twofold. First, I will directly argue for the idea that animals can conceptualise reasons as reasons. Second, I will refer to empirical research suggesting that animals attribute intentions to others. If the ability to conceptualise intentions really is necessary for conceptualising reasons, then this research should provide further plausibility to the claim that animals can conceptualise reasons as reasons. I thus submit that my arguments will further improve upon Glock's account by (1) showing that animals can *conceptualise reasons as reason*, (2) lending further support to the idea that non-human animals can *act rationally*, and (3) providing some initial foundation for the claim that they can *reason*.

## 1. Introduction

Glock<sup>2</sup> argues (against many traditional views)<sup>3</sup> that non-human, non-linguistic animals are capable of acting rationally, for reasons, and in light of reasons. However, he stops short of arguing that animals can also reflect upon these reasons. This is because it seems that one has to be able to conceptualise them *as* reasons in order to reflect upon them. As such, he holds that the ability to reflect upon reasons depends on one's familiarity with the *concept* of a reason. The possession of this

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<sup>2</sup> Glock 2019.

<sup>3</sup> Cf. Alvarez 2010; Brandom 2010; Davidson 1982, 2001; Frankfurt 2004, pp. 18-19; Hacker 2007; Hampshire 1959; Marcus 2012; McDowell 1996; Stoecker 2009.

concept, in turn, requires a certain linguistic repertoire and thus excludes animals to the extent that they lack linguistic competences. I will argue, however, that, in using Glock's<sup>4</sup> own criteria for concept-possession, one *can* actually claim that animals can conceptualise reasons *as* reasons. My arguments will thus further improve upon Glock's current account in three ways: (1) by showing that animals can conceptualise reasons as reasons; (2) by lending further support to the idea that non-human animals can act rationally; and (3) by providing some initial grounds for the claim that animals can reason.

The paper will proceed as follows. Section 2 will be concerned with presenting Glock's<sup>5</sup> arguments for animals as rational agents, capable of acting for reasons and in light of reasons. In Section 3, I will present an objection, anticipated by Glock, which claims that language is necessary in order to act in light of reasons. Based upon this objection, I will then argue that non-linguistic animals can conceptualise reasons as reasons in Section 4. My argument for this idea will be twofold. First, I will directly argue that animals can conceptualise reasons as reasons according to Glock's account of concept-possession. One might object, however, that one can understand reasons as reasons only if one understands intentions as such. Thus, second, I will refer to empirical research suggesting that animals attribute intentions to others. If the ability to conceptualise intentions really is necessary for conceptualising reasons, then this research should provide further plausibility for the claim that animals can conceptualise reasons as reasons. Note that I will continue to talk of 'animals' mostly without qualification, however as the paper progresses it should become clear which non-linguistic animals I am referring to – namely those who satisfy Glock's conditions for agency. These would plausibly include chimpanzees, pigs, jays, and other animals that are similarly cognitively equipped.

## 2. Rational Animal Agency

According to Glock, animals are capable of not only acting, but of acting rationally, intentionally, for reasons, and in light of reasons.<sup>6</sup> This section will be dedicated to outlining Glock's account. Briefly, the idea is that animals pursue goals (or desires), while being guided by their descriptive representations of their environment (i.e. beliefs). So, animals act rationally insofar as they act upon personalised goals; intentionally because they act on belief-desire pairs; and they act for reasons because intentional action implies action for reasons. Finally, since facts and reasons are coextensional, animals act in light of reasons because they act in light of facts. Now, let me elaborate.

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<sup>4</sup>Glock 2010, 2019.

<sup>5</sup>Glock 2019.

<sup>6</sup>Ibid.

Glock begins by arguing that animals can act. Start with the fact that animals exhibit behaviour.<sup>7</sup> An activity constitutes behaviour if and only if that activity is “aimed at satisfying needs guided by perception”.<sup>8</sup> In order to count as action, such behaviour requires two more differentiations. First, the agent needs the ability to decouple stimulus from response – i.e. the same stimulus needs to allow for differing responses. This ensures flexibility and intelligence in behaviour by enabling the subject to learn from past experience and adjust its behaviour accordingly. As such, it is because of this stimulus/response decoupledness that dogs can learn to not attack strangers, or to only ‘do their business’ outside – same stimuli, differing responses. Second, there needs to be “a *differentiation of cognitive* states like belief and *conative* states like desire”.<sup>9</sup> This allows the agent to use its descriptive representations of its environment in order to further its goals (or desires).

Were cognitive and conative states not decoupled, the would-be-agent would exhibit mere ‘pushmi-pullyu representations’. These representations are in themselves insufficient for action in the relevant sense.<sup>10</sup> They are such that a given belief is necessarily linked to a given desire, and thus necessarily results in activity. Consider this often-cited example: Leopard frogs will (allegedly) snap their tongue at anything that (a) is in their visual field and (b) is a black spot. So, their representation of a black spot immediately results in the snapping of their tongues — this, irrespective of whether the black spot really is a fly, and irrespective of whether they are actually hungry. This is not real action. Action needs consideration, guidedness, and independent motivation.

So, if an agent exhibits flexible behaviour that is guided by its descriptive representations of its environment and directed towards individual goals, then this constitutes action. There certainly are animals that exhibit such behaviour.<sup>11</sup> Consider chimpanzees identifying and using different tools to satisfy their needs and desires (i.e. hunting for ants or termites), or pigs seeking a puddle of mud because (and only if) they want to ‘bathe’ in it. Hence, certain non-human animals act. Next, let’s consider the claim that non-human animals can act *rationally*.

Glock differentiates between “four general conceptions of rationality”<sup>12</sup>:

According to the first, it is the capacity to maximize satisfaction of one’s interests or goals; according to the second, it is responsiveness to reasons; according to the third, it is the ability to reason – draw theoretical and/or practical inferences and to avoid

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<sup>7</sup> Ibid., pp. 647-58.

<sup>8</sup> Ibid., p. 649.

<sup>9</sup> Ibid., p. 650.

<sup>10</sup> Cf. Millikan 1995; and Millikan 2005, chapter 9.

<sup>11</sup> See also Call and Tomasello 2008; Glock 2010, 2019; Held et al. 2001; Krupenye et al. 2016, 2017; Krupenye and Call 2019; Millikan 2005, 2006.

<sup>12</sup> Glock 2019, p. 656.

inconsistencies; according to the fourth, it is the ability to justify one's actions and beliefs to others.<sup>13</sup>

He sets aside the first conception because in order to be subject to rationality's normative constraints, one has to first have the general capacity for rational action. In a slogan, capacity precedes normativity.<sup>14</sup> The third conception amounts to the capacity to reason which seems to presuppose certain linguistic capacities, and is thus bracketed as well. Lastly, Glock rules out the fourth conception since he believes that it begs the question in favour of lingualism because it again presupposes certain linguistic capacities and thus "excludes animals *ab initio*".<sup>15</sup>

It is the second notion (*reasons-responsiveness*) that goes in the right direction, by emphasising a feature that is common to all four conceptions – a feature that rationality shares with intelligence. An animal's intelligent actions are based on their stimulus/response decoupledness. This decoupledness ensures that they are capable of acting flexibly when confronted with familiar as well as novel situations and problems, learning from past solutions, and even transferring and adapting relevant information. These features and capacities also prominently figure in rationality. Glock adheres to an *internalist* interpretation of rationality. Internalism about rationality holds that what it is rational to do is what one *most wants* to do of all the personal goals one has adopted. Such goals need not be very sophisticated. A dog's goals might just involve *chasing the cat* and *chasing the tennis ball* – and she might in fact opt for the latter simply because she has learnt that this activity brings just as much joy while avoiding sanctions from humans. As such, she chooses her goals flexibly, adaptively, and based on past experience. Since some intelligent animals adopt personalised goals in light of their past experience, such animals count as rational given that they can act upon these goals.<sup>16</sup> Thus, "intelligent animals with goals of their own can act rationally".<sup>17</sup>

Notice that this already implies that animals can act *intentionally* and *for* reasons within a certain tradition. If an agent acts in order to achieve a goal of its own, then it acts "*with the intention* of achieving the goal".<sup>18</sup> Now, this can be understood in two ways.<sup>19</sup> In a minimal sense, ascribing an intention is just ascribing the pursuit of a goal. Intentional explanations are explanations that involve the pursuit of goals. In a broadly Davidsonian framework, on the other hand, 'rationalisations' are

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<sup>13</sup> Ibid.

<sup>14</sup> Cf. Dretske 2006 for a similar argument to that extent. The idea is that I cannot be evaluated as *rational* or *irrational* if I am merely *a-rational*, *pre-rational*, or *non-rational* (and thus do not even have the general capacity for rationality).

<sup>15</sup> Glock 2019, p. 656.

<sup>16</sup> See also Dretske 2006 and Millikan 2006 for other (but similar) accounts of minimal rationality.

<sup>17</sup> Glock 2019, p. 658.

<sup>18</sup> Ibid.

<sup>19</sup> Note that Glock's position is compatible with both.

explanations of actions in terms of beliefs and desires, where beliefs and desires together *constitute* intentions.<sup>20</sup> Hence, such rationalisations are intentional explanations of action. It is this sense of ‘intention’ that I will from now on adopt. Additionally, rationalisations are taken to explicate the reason(s) for which the agent in question acted. As Glock puts it: “In a perfectly clear and established sense, a goal or intention with which an action is performed counts as a *reason* for which the action is performed”.<sup>21</sup> In other words, acting with an intention is sufficient for acting for a reason. Now, recall that *action* itself already implied descriptive representations of one’s environment (i.e. beliefs) and the pursuit of goals (or desires). As such, since beliefs and desires constitute intentions, if one acts upon one’s goals (or desires), then one acts intentionally and thus also for a reason. As already mentioned, some non-human animals act upon personal goals.<sup>22</sup> Hence, they act intentionally and for a reason. Now, there are two immediate questions to consider next: What we should believe *reasons* to be, and what it means to *act in light of them*.

Glock adopts an *objectivist* position when it comes to reasons.<sup>23</sup> This is just to say that reasons are not mental states, but facts. My reason for taking an umbrella is not my belief that it is raining, but the *fact* that this is so. More specifically, it is neither my act of *believing*, nor the *content* of my belief that counts as a reason – rather, it is the *fact* that it rains that counts. Reasons and facts are coextensional. Hence, one does not have to be aware of one’s mental states in order to be aware of the reasons one has for acting. An awareness of one’s surroundings suffices – i.e. an awareness of the facts of one’s environment. This does not commit one to externalism about rationality because objectivism centres around facts *as perceived by the agent* – it is still perspectival. As such, it does not matter whether it ‘actually’ rains – it just needs to seem to me that this is in fact so. This notwithstanding, it is not mental states that provide reasons for action, but rather “*what is believed* or *what is desired*,” where this refers to facts.<sup>24</sup> As such, when one represents the world, one represents reasons. Animals have representations of their environment (i.e. of the facts surrounding them).<sup>25</sup> Hence, they have representations of reasons. It is in this sense that they also *have* reasons to act. And when they do act, they will act in light of the facts that obtain (or potentially obtain)<sup>26</sup> around them. Hence, animals can act in light of reasons.

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<sup>20</sup> Cf. Davidson 1963.

<sup>21</sup> Glock 2019, p. 660.

<sup>22</sup> See footnote 10.

<sup>23</sup> Cf. Alvarez 2010.

<sup>24</sup> Glock 2019, p. 661.

<sup>25</sup> See footnote 10.

<sup>26</sup> Glock believes that one can also act on ‘potential facts’ in order to explain how one can act for reasons (i.e. facts) that really are not there (cf. Glock 2019, p. 664). Alternatively, one might refer to *apparent reasons* (cf. Alvarez 2010).

This section was dedicated to elucidating Glock's arguments for animals as rational agents capable of acting rationally, intentionally, for reasons, and in light of reasons. Action is behaviour that involves stimulus/response decoupledness, as well as cognitive/conative state decoupledness. Within a certain tradition, cognitive and conative states (i.e. beliefs and desires) together constitute intentions. Hence, the capacity for action implies the capacity for intentional action, which in turn implies the capacity to act for reasons. Finally, since reasons and facts are coextensional, acting in light of reasons is equivalent to acting in light of facts. Since animals certainly act in light of the facts obtaining in their environment (through their representations of these facts), they act in light of reasons. Now, notice that this is not yet to say that animals represent reasons (i.e. facts) *as reasons*. That is, their representations of the facts surrounding them does not yet have to take the form of a reason – it might just be that they represent reasons (i.e. facts) *as facts*, without that involving the concept of a reason. In the next section, I will consider this issue more closely by way of an objection that Glock anticipates – the *Lingualist Objection*.

### 3. The Lingualist Objection

Glock<sup>27</sup> concludes his paper by considering a possible objection to animals' ability to act in light of reasons. The objection holds that the ability to conceptualise reasons *as reasons* is necessary for acting in light of reasons, which in turn implies certain linguistic capacities. This section will be dedicated to laying out what this *Lingualist Objection* amounts to exactly. Further, I will briefly indicate which premise Glock himself rejects. As I will argue in the next section, however, he could resist the argument on even further grounds. This will be the subject of Section 4.

The *Lingualist Objection* proceeds as follows: One has to be able to *reflect* upon one's reasons in order to act in light of them. The ability to reflect upon reasons, however, requires the ability to think about them *as reasons* – to *conceptualise* them as reasons – where this entails a certain minimal linguistic repertoire. Animals do not possess this linguistic repertoire. Hence, such animals cannot reflect upon reasons *as reason*, which implies that they cannot act in light of them. Here's a roughly formalised version of this argument in order to clarify it:

- (P1)  $(InLight \rightarrow ReflR)$
- (P2)  $(ReflR \leftrightarrow ReflRasR)$
- (P3)  $(ReflRasR \rightarrow ConceptualiseR)$
- (P4)  $(ConceptualiseR \leftrightarrow LingComp)$
- (P5)  $(Animal \rightarrow \neg LingComp)$

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<sup>27</sup> Glock 2019.

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|------|---------------------------------------|----------------|
| (C1) | ( <i>Animal</i> → ¬ <i>ReflRasR</i> ) | [from P2 – P4] |
| (C2) | ( <i>Animal</i> → ¬ <i>InLight</i> )  | [from P1 & C1] |

Let me elaborate. First, some theorists claim that in order to act in light of reasons, one has to be able to reflect upon them.<sup>28</sup> Intuitively, I cannot be properly said to act in light of reasons if I cannot weigh them, consider them, prioritise some over others, in short, reflect upon them. Second, Glock (*contra* his opponents) holds that reflecting on reasons *as* reasons is both necessary and sufficient for reflecting on them at all. It is certainly sufficient, but it is also necessary since those views suggest that one cannot reflect upon reasons if one cannot recognise or understand them as such. Third, conceptualising reasons *as* reasons is necessary for reflecting upon them. Here's another way to think about this. The lingualist can concede that facts and reasons are *extensionally* equivalent. That is, in enumerating every possible fact, one simultaneously enumerates every possible reason. The problem is that in order for it to be true (*de re*) that animals reflect upon reasons, they have to reflect upon them *as* reasons. Although reasons are extensionally equivalent to facts, it would not be sufficient for them to merely reflect on facts *as facts* precisely because the way in which they conceptualise these facts makes all the difference as to whether it is true (*de re*) that they reflect upon *facts* or upon *reasons*. One would have to reflect on a reason *in the guise of a reason* in order for it to be true (*de re*) that one reflects upon reasons at all (and not just mere facts). In yet other words, one reflects upon reasons rather than facts only if one conceptualises (understands, regards) them *as* reasons and not as mere facts.<sup>29</sup> The lingualist holds, however, that animals which lack even basic linguistic competence fail to live up to this demand.

So, fourth, linguistic competence seems to be both necessary and sufficient for conceptualising reasons as reasons. Linguistic competence should here be taken as that kind of competence we would intuitively ascribe to linguistic animals like ourselves. So, it is *not* about mere communicative competence in the broader sense, but rather about language-related abilities in the strict sense. It is, after all, the *Lingualist* Objection. The reason why Glock holds that such linguistic competence is sufficient for conceptualising reasons as reasons is that small children can recognise reasons as reasons “by answering ‘why?’ questions by ‘because ...’.” They are able to have a “partial grasp of the concept of a reason” in virtue of their linguistic capabilities.<sup>30</sup> So it is their ability to verbally justify themselves that explains their ability to conceptualise reasons as reasons. Now, why is language necessary for this? First, according to proponents of the Lingualist Objection, language just is necessary for the possession of concepts in the first place – especially those of such an abstract

<sup>28</sup> Cf. Brandom 2010; Davidson 1982; Frankfurt 2004, pp. 18-19; Hacker 2007; McDowell 1996.

<sup>29</sup> Plausibly, this is (at least in part) because the verb “reflecting” is a psychological verb and thus creates an intensional context (cf. Wild 2008, chapter IV).

<sup>30</sup> Glock 2019, p. 669.

nature like the concept of a *reason*.<sup>31</sup> In other words, according to the Lingualist Objection, acting in light of reasons implies the ability to reflect upon them. Reflecting on reasons implies reflecting on them *as* reasons, which requires the ability to conceptualise them. Concept-possession, however, is possible only through language. Hence, non-linguistic animals cannot conceptualise reasons. Second, Glock himself concedes that “reflecting on reasons as reasons comes in degrees, *depending on the linguistic repertoire*”.<sup>32</sup> Given the aforementioned implication relations, language is both necessary and sufficient for conceptualising reasons *as* reasons.

In the end, Glock concedes that “*in so far as* reflecting on reasons requires reflecting on them as reasons and therefore mastery of the concept of a reason, it depends on some mastery of the idiom of intentional explanations”.<sup>33</sup> He can concede this because he counters the Lingualist Objection by rejecting (P1) – he argues that reflecting on reasons as reasons is not necessary for acting in light of reasons. Briefly, “A couldn’t develop a capacity to reflect on A’s reasons if A didn’t *have* reasons [to act in light of in the first place]”.<sup>34</sup> Demanding that the capacity to reflect upon reasons precede one’s having reasons would just result in an infinite regress. Thus, he holds that animals can act in light of reasons despite their inability to conceptualise them as reasons. I would argue, however, that he could do more than this. First, he could also explicitly reject (P4) – the idea that linguistic competences are *necessary* for conceptualising reasons as reasons. As I will argue in the following section, non-linguistic animals can conceptualise reasons as reasons. Second, I believe that, given my arguments, he can also account for more types of rationality in animals than he himself suggests. Recall Glock’s four conceptions of rationality from Section 2: (i) maximisation of one’s interests, (ii) reasons-responsiveness, (iii) the capacity to reason, and (iv) the capacity to justify one’s actions and beliefs. Recall further that Glock sets aside conceptions (i), (iii), and (iv). If what I will argue is correct, then Glock’s account also provides some grounds to believe that animals can (iv) justify their actions – just in a non-linguistic manner. Moreover, my arguments will provide a first step towards rethinking whether non-linguistic animals might not actually be able to *reason* – i.e. conception (iii). I will discuss the implications of my additions to Glock’s account in the conclusion. Let me now turn to my arguments for why non-linguistic animals can conceptualise reasons as reasons.

#### 4. Conceptualising Reasons Without Language

Relying on Glock’s account of concept-possession, I would like to suggest that it is possible for non-linguistic animals to conceptualise reasons *as* reasons.<sup>35</sup> In order to

<sup>31</sup> Cf. Brandom 2010; Davidson 1982; Frankfurt 2004, pp. 18-19; Hacker 2007; McDowell 1996.

<sup>32</sup> Glock 2019, p. 669 (emphasis mine).

<sup>33</sup> *Ibid.*, p. 669.

<sup>34</sup> *Ibid.*

<sup>35</sup> Cf. Glock 2010. See also Schmidt 2015 for another ability-account of concept-possession.



argue for this, I need to establish two things. First, it needs to be possible that non-linguistic animals can possess concepts. Second, animals need to be capable of conceptualising something as abstract as a *reason*. I will argue for each of these claims in turn. The latter claim will be argued for in two different ways. The first is to present a direct argument for the plausibility of animals' abilities to conceptualise reasons. The second way amounts to an indirect argument for this idea by granting plausibility to a possible necessary condition for conceptualising reasons – namely, the ability to conceptualise intentions.

Non-linguistic animals can have concepts of concrete objects (e.g. tables, rocks, ants, etc.). Glock himself provides an account of how this is possible. He argues that concept-possession is an ability – namely, the ability to *classify* objects. Classification here means “[recognising] *x* as being *F* rather than non-*F* or *G*”.<sup>36</sup> This, in turn, involves judgment, where judgment is nothing but “a deliberate response to a question”.<sup>37</sup> But wouldn't that require language after all? Not necessarily. For Glock, “questions are in the first instance linguistic fallout from problems”, and animals are certainly capable of “facing a problem and deciding in a flexible manner on which options to pursue”.<sup>38</sup> As outlined in Section 1, their stimulus/response and belief/desire decoupledness secures exactly this. Hence, since animals can discriminate between options in a deliberate manner, they can judge things to be an *F* rather than a non-*F* or a *G*. This, in turn, is sufficient for their possessing a given concept. Consider the following example given by Glock:

Take a chimpanzee that has learnt to use different tools in the pursuit of *dorylus* ants and *macrotermes* termites. It is plausible to maintain that it judges its prey to be of one kind rather than another, and similarly for its tools. [...] In short, judgement arises out of a capacity for deliberate discrimination in the context of problem-solving, a capacity that we share with some animals that are highly sophisticated without possessing language.<sup>39</sup>

Since the chimpanzee – call her Ruth – can differentiate between termites and ants, it seems that she can recognise termites *as* termites rather than non-termites or ants. That is, Ruth can conceptualise termites *as* termites. Of course, Ruth might not conceptualise them *as termites* in our sense. But she does seem to conceptualise them *as something*. There is a way in which she represents and classifies them. Note that Glock himself seems to limit his argument to concepts about concrete objects. I believe he need not do this. In fact, he can claim that animals can conceptualise

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<sup>36</sup> Ibid., p. 30.

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

something as abstract as a reason.

#### 4.1 *The Direct Argument: Conceptualising Reasons as Reasons*

Start with a minimal condition of what it takes to regard a fact *as a reason*. Following Scanlon, one could suggest that, minimally, regarding a fact as a reason is regarding it as “a consideration that counts in favour of” a given action.<sup>40</sup> Now, consider this example again: “My reason for taking an umbrella is that it is raining, *not* that I *believe* that it is raining; for it is the weather rather than my own mental state that makes taking an umbrella *good in my eyes*”.<sup>41</sup> So, the weather (i.e. a given fact) is what makes a specific course of action appear *good in my eyes*. Call this making something *conatively salient*. Thus, I propose that, in the most minimal possible sense, regarding facts as reasons is regarding them as *sources of conative salience*. It is regarding them as that which makes certain courses of action, objects, states of affairs etc. good or desirable in the agent’s eyes.<sup>42</sup> Regarding a fact as a reason, then, is regarding it as that in virtue of which something appears to me *in the guise of the good*.

Which brings me to the final question: Can animals conceptualise reasons as reasons? For this claim to hold, it would need to be true that our chimpanzee – Ruth – conceptualises the termites as a reason for choosing one tool rather than another – as a source of conative salience. Recall that ‘conceptualisation’ here amounts to deliberately discriminating between “*x as being F rather than non-F or G*”.<sup>43</sup> So, Ruth would need to be able to deliberately discriminate between the fact that there are termites as being a source of conative salience rather than not. In other words, she would need to be able to identify the termites as that in virtue of which one specific tool stood out (i.e. became conatively salient) from the others, to the extent that she actually chose that tool. How would one determine whether that was the case? Paradigmatically, by *asking* whether that was the case. As already mentioned, Glock holds that language is sufficient for possessing the concept of a reason precisely because it allows one to communicate one’s reasons and answer ‘why’-questions.<sup>44</sup> But saying that language is necessary would arguably beg the question in favour of lingualism. We need to consider the possibility that a similar mechanism can take place without one’s verbal articulation of it. Now, recall further that Glock holds that “questions are in the first instance linguistic fallout from problems”.<sup>45</sup> Ruth faces a problem when she spots the termites – the problem which tool to use. Now, arguably, in picking one tool rather than another, Ruth provides us with an answer

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<sup>40</sup> Scanlon 1998, p. 17.

<sup>41</sup> Glock 2019, p. 662 (last emphasis mine).

<sup>42</sup> Of course, this should be taken to mean ‘*pro tanto* good’ and not ‘*all things considered* good’ since there can still be conflicting reasons.

<sup>43</sup> Glock 2010, p. 30.

<sup>44</sup> Glock 2019, p. 669.

<sup>45</sup> Glock 2010, p. 30.

to that problem: she picks that specific tool *because* it is termites she wants for lunch. The termites are that in virtue of which a specific tool appeared conatively salient to Ruth – she regarded the fact that there are termites as a reason for choosing that specific tool. Were another chimpanzee to be confused about her picking this tool rather than another, Ruth could (and plausibly *would*) provide a perfectly useful answer simply by pointing to the termites. This behaviour would testify to her understanding of the termites as being the reason why she picked that specific tool. But what if she never actually exhibits this behaviour? Glock has an answer to this as well: “Concept-possession must belong to the category of potentiality. For unlike concept-exercise, concept-possession is enduring or static rather than episodic or occurrent”.<sup>46</sup> Thus, even if Ruth never actually has to provide answers for such queries, we can plausibly ascribe to her the possession of the concept of a reason in virtue of her general capacity to answer such ‘why’-problems with ‘because’-behaviour.

Notice, incidentally, that this also provides some grounds for the claim that non-linguistic animals can act rationally in another of Glock’s senses: (iv) justifying one’s actions and beliefs to others. In a perfectly coherent sense, justifying one’s action can consist in pointing towards the reason(s) one had for performing it. More specifically, motivating reasons imply explanatory reasons, which in turn imply minimally justificatory reasons. If the fact that it rains motivates me to take my umbrella, this fact also explains my action and minimally justifies it. Already Davidson noticed that motivating reasons also minimally justify one’s action (even if not very well).<sup>47</sup> And again, justification need not be a verbal exercise. First, because it would again beg the question in favour of linguism, and second because “questions are in the first instance linguistic fallout from problems”.<sup>48</sup> So, in answering ‘why’-problems with ‘because’-behaviour, Ruth not only indicates what made this course of action appear good in her eyes, she also explains her action and minimally justifies it. That is, in pointing towards the termites, Ruth provides some justification for her taking the termite-tool. And again, capacity precedes normativity. The capacity to justify *at all* precedes the capacity to justify *well*. The fact that there are *termites* might be a bad justification for taking the *ant*-tool, but it is a justification nonetheless.<sup>49</sup> Hence, if non-linguistic animals exhibit such behaviour, they (minimally) justify their actions and thus at least partially satisfy Glock’s fourth conception of rationality. More specifically, they satisfy the practical aspect of this rationality conception. It is, of course, an empirical question whether animals do act in that way. But I take it that findings on social learning in non-human animals

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<sup>46</sup> Ibid., p. 27.

<sup>47</sup> Davidson 1963, pp. 690-91.

<sup>48</sup> Glock 2010, p. 30.

<sup>49</sup> Again, cf. Dretske 2006 for similar ideas concerning capacity preceding normativity.

should testify for the plausibility of this claim.<sup>50</sup> Thus, I submit that non-linguistic animals can (minimally) justify their actions.

There is a possible objection lurking, however. Recall that Glock believes that “*in so far as reflecting on reasons requires reflecting on them as reasons and therefore mastery of the concept of a reason, it depends on some mastery of the idiom of intentional explanations*”.<sup>51</sup> The objection points out that it is the understanding and use of *intentional explanations* that does most of the work here. After all, how can one conceptualise something as a reason if one does not understand what it means to intentionally pursue a goal? One might thus argue that one can conceptualise reasons as reasons only if one can conceptualise intentions as such. The latter would, for instance, involve the ability to deliberately ascribe intentions to others (or oneself). Hence, one would first have to establish that Ruth can ascribe an intention to herself before one can jump to the conclusion that she can conceptualise the termites as sources of conative salience.

#### 4.2 *The Indirect Argument: Conceptualising Intentions*

So, suppose the following conditional holds true: If animals can conceptualise reasons as reasons, then they can conceptualise intentions as such – the latter thus being a necessary condition for the former. If what I have just argued is correct, then the antecedent holds. This would already suffice to establish that the consequent holds as well. This notwithstanding, I will now present a further argument for the plausibility of the consequent – for the claim that certain animals can conceptualise intentions according to Glock’s account. So even if the critic were correct in pressing this conditional, we have independent reason to believe that animals can satisfy its consequent. This should, in turn, grant further plausibility to the claim that animals can conceptualise reasons as reasons. To argue for this, I will rely on empirical data gathered by Held and colleagues.<sup>52</sup> More empirical evidence for the idea that various animals ascribe intentional states to one another is available.<sup>53</sup> I will rely on Held and colleagues merely for illustrative purposes.<sup>54</sup>

Held and colleagues conducted experiments that suggest that pigs can conceptualise intentions.<sup>55</sup> For this, they let a hierarchically dominant pig (DP) and a hierarchically subordinate pig (SP) forage for food in a specific area that was appropriately

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<sup>50</sup> Cf. Krupenye and Call 2019; Seyfarth and Cheney 2015; Wild 2008, pp. 162-79.

<sup>51</sup> Glock 2019, p. 669.

<sup>52</sup> Held et al. 2001.

<sup>53</sup> Cf. Call and Tomasello 2008; Hare 2011; Krupenye and Call 2019; Krupenye et al. 2016, 2017; Legg, Ostojic, and Clayton 2016.

<sup>54</sup> Note that Held et al. 2001 studied pigs. They did this purposely because they wanted to show that it is not just chimpanzees that display such sophisticated mental capacities (cf. p. 210). I take it that this also further strengthens my overall point.

<sup>55</sup> Held et al. 2001.

prepared (by placing food at certain locations, for instance). In a first round, both pigs simply searched for the food. Then they were put back, the food was replaced, and only the SP was allowed to search again. The food was located at the exact same spots. Thus, the SP was trained to believe that the food will be placed at the exact same location as immediately before. The DP remained ignorant about this. In a second round, the experimenters put the food in different locations and let only the SP search for it. When they then let both pigs forage again, the DP had to search for food, while the SP merely had to *relocate* it – it already knew where the food was. Now, what happened was that the DP would very soon give up its search and follow the SP instead. This was a robust result. The best explanation for this is that the DP realised that the SP was *knowledgeable* about the location of the food. But this alone is certainly insufficient to explain the DP's behaviour. The DP also needed to realise that the SP *wanted* to locate the food. Notice, however, that this just *is* what it means to attribute *intentional action* to one's conspecific.

Again, intentional action is action which is “to be explained by reference both to what they want [...] and to what they believe [...]”.<sup>56</sup> Beliefs and desires together constitute intentions. The DP abandoned its search and went along with the SP *because* it realised both that the SP *knew* where the food was and *wanted* to go there. Both attributions are necessary to explain the DP's actions in this way.<sup>57</sup> That is, had it believed that the SP merely *guessed* where the food was, it plausibly would not have abandoned its own search. Similarly, had the DP believed that the SP knew where the food was without *wanting* to find it, it plausibly would not have followed it either. But what this means is that the DP had to effectively discriminate between the SP's being knowledgeable rather than ignorant, and as desiring rather than not desiring the food – it recognised the other pig “*as being F rather than non-F or G*”.<sup>58</sup> If this is true, however, the DP displayed “some mastery of the idiom of intentional explanations”.<sup>59</sup> This is because attributing such a belief-desire pair *just is* attributing an intention. All of this put differently: the best explanation for why the DP abandoned its own search and followed the SP is because it attributed an appropriate belief and desire (i.e. an intention) to the SP.<sup>60</sup> In doing so, the DP discriminated between the SP's wanting rather than not wanting to find the food and knowing rather than guessing where it was. But cognitive and conative states together constitute *intentions*. According to Glock's own criteria, the DP thus conceptualised the SP's intentions.<sup>61</sup>

<sup>56</sup> Glock 2019, p. 660. See also Section 2.

<sup>57</sup> For further evidence that lower-level, non-intentional explanations will not do see Krupenye et al. 2016, 2017, as well as Krupenye and Call 2019.

<sup>58</sup> Glock 2010, p. 30.

<sup>59</sup> Glock 2019, p. 669.

<sup>60</sup> See footnote 56.

<sup>61</sup> Notice that, at the bare minimum, the DP would have to recognize the SP's goals. That is, would it not understand that the SP's goal was the food, it would not have abandoned its own search. Now,

Possibly, if one can conceptualise reasons as reasons, then one can conceptualise intentions as such. Given this entailment relation, I have now presented two separate arguments for the idea that animals can conceptualise reasons as reasons. One argument directly for the truth of the antecedent, implying the consequent, and one for the plausibility of the consequent, providing further reasons to believe in the truth of the antecedent. In other words: if what I have argued is correct, then we have reason to believe that animals can conceptualise reasons as reasons. The idea is that animals are plausibly capable of identifying certain objects as that in virtue of which something became conatively salient to them – as that in virtue of which something appeared *good in their eyes*. Their behaviour would certainly suggest that this was the case. I have also presented an independent argument for the claim that animals are capable of conceptualising intentions. The two arguments work independently from one another, but also support each other. I thus submit that Glock can claim that animals can conceptualise reasons *as* reasons. Since animals are non-linguistic, he can thus reject (P4), as well as (P1). Notice, however, that the above argument is still moot when it comes to (P3). Conceptualising reasons as reasons is necessary for reflecting upon them, but not necessarily sufficient. This notwithstanding, it goes some way towards our getting a better grasp of animals' possible ability to reflect upon the reasons they have.

## 5. Conclusion

Glock argues that animals are capable of acting rationally and for reasons. He rejects the claim that they can reflect upon their reasons. This is because reflecting upon one's reasons requires one's being able to conceptualise them as reasons. I have argued, however, that Glock can actually claim that animals can conceptualise reasons as reasons. This is because in his picture behaviour fulfils basically the same function as language when it comes to problem-solving and answer-giving. When Ruth picks the termite-tool rather than the ant-tool, she does this *because* she wants termites for lunch. The termites are that in virtue of which the termite-tool became conatively salient to Ruth. Plausibly, she can deliberately discriminate between the termites and non-termites or ants *as* that which made the termite-tool seem *good in her eyes*. But this just *is* what it means to conceptualise reasons *as* reasons. Moreover, empirical research suggests that some animals are capable of deliberately attributing intentions to others. This implies their ability to conceptualise intentions according to Glock's account.<sup>62</sup> Thus, I have presented two independent arguments for the idea that animals can conceptualise reasons as reasons. The first is a direct argument for

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recall that intentional explanations might also just imply reference to goals. If this were the case, then there is another sense in which the DP understood the SP's intention – by understanding that it *pursued a goal* rather than a *non-goal* or thinking it merely *wandered around*.

<sup>62</sup> Glock 2010.

this, while the second is indirect in so far as it suggests that a possible necessary condition for conceptualising reasons as reasons is fulfilled by animals.

As such, I take it that my arguments imply three expansions upon Glock's own account. The first is, of course, that in using Glock's account, one can actually claim that non-linguistic animals are capable of conceptualising reasons *as* reasons. The second and third improvements revolve around the different conceptions of rationality that Glock provides. More specifically, I believe that he can account for more than he himself has claimed. As already suggested in Section 4.1, and this is the second expansion, I submit that Glock can account for the practical aspect of the kind of rationality that demands the capacity to justify one's actions and beliefs (iv). This is because reference to one's motivating reasons also involves some minimally justificatory behaviour. The third and final expansion is the following: if what I have said thus far is correct, then I have also provided some initial grounds for the claim that animals have the capacity to *reason* – i.e. Glock's conception (iii). Reasoning, as Glock sketches it, involves the capacity to “draw theoretical and/or practical inferences and to avoid inconsistencies”.<sup>63</sup> Now, cashing out practical-inference-drawing in my terms would amount to something like the idea that conative salience can (or should) be transmitted if the objects/actions/etc. stand in the right relation towards one another. Conative salience should, for instance, be transmitted from ends to means – if I value an end, I ought to value its means. But yet again, capacity precedes normativity. So, let's reconsider the case of Ruth. The reason why Ruth wants termites for lunch is, in the first instance, the fact that she is hungry. The fact that she is hungry makes termites conatively salient to Ruth. Now, plausibly, this is also what gives rise to her wanting to use the termite-tool. But this just means that the conative salience attached to the termites in virtue of her being hungry was transmitted to the termite-tool. Just as the termites became conatively salient because of the fact that Ruth is hungry, the termite-tool gained conative salience in virtue of its being a means towards Ruth's end. This, I believe, is a first sketch of what we might want to call a *minimal practical inference* – the transfer of conative salience.<sup>64</sup>

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<sup>63</sup> Glock 2019, p. 665.

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