

# Is there a problem in attributing beliefs and intentionality to animals?

Anne Quain

In Dr Seuss's story, 'What Was I Scared Of?'<sup>1</sup> the protagonist<sup>2</sup> confronts a pair of levitating green trousers in a dark wood at night. In spite of the fact that this is a rather strange situation in which to find oneself, and that this other being is completely unknown to her, our heroine - I shall henceforth refer to her as Everyperson - immediately reacts as if these pants were behaving in accordance with some sort of purpose or intention. This is evident in her account of the situation:

I wasn't scared. But, yet, I stopped.  
What *could* those pants be there for?  
What *could* a pair of pants at night  
Be standing in the air for?<sup>3</sup>

Although this account seems absurd because it takes the novelty of the situation for granted, what Everyperson is doing is something which most of us have engaged in at some time in our lives: interpreting the behaviour of another being *as if* that being possessed beliefs and intentions. In other words, Everyperson adopts what is sometimes called the 'Intentional Stance'<sup>4</sup> towards the pants (which shall be known henceforth as GP - short for Green Pants). As Dr Seuss's tale unfolds, Everyperson is able to determine, to what degree of precision it remains unclear, the intentions of GP through acts of communication - most importantly, verbal language. Everyperson and GP thereby become

---

<sup>1</sup> Dr. Seuss, 'What Was I Scared Of?' in *The Sneetches and Other Stories* (William Collins Sons & Co, London, 1961).

<sup>2</sup> Although the protagonist is a hare-like creature (i.e. a non-human animal), Seuss expects us to unproblematically identify with her as an intentional being. For the purposes of this article, I will adopt the intentional stance toward this protagonist.

<sup>3</sup> Seuss, 'What Was I Scared Of?' - original emphasis

<sup>4</sup> This phrase was made famous by Daniel Dennett in his book of the same name, in 1987. I will discuss the intentional stance in more detail in Part I of this article.

friendly acquaintances and engage with each other without further problems.

In real life, such a situation would not be so clear cut. Philosophers and scientists alike have realised that there are many problems in attributing beliefs and intentions to other beings. For instance, even if we allow that Everyperson's initial judgement had been confirmed by the end of the tale, most of us would agree that her immediate attribution of intentionality to the pants was an intuitive reaction, based on little direct evidence of the presence of beliefs or intentions.

At this point we might ask, 'Well then, what *is* intentionality? and where do beliefs and desires fit into this picture?' My task in Part I of this article is to answer these questions. I will show that the common assumptions regarding intentionality tend to lead to more stringent conditions for intentionality in relation to non-human animals than to humans. The impact of such a double-standard on our perception of non-human animal intentionality has been enormous. However, I will leave the question of whether or not this is a tenable position aside for the greater part of this article, and focus on the alleged problems of attributing beliefs and intentions to all *non-human animals*, as this has been the main focus of the current philosophical debate about intentionality.

I will discuss the nature of intentionality as it is attributed to non-human animals in Part II, along with the assumptions inherent in our views of what constitutes evidence for such. This leads to a discussion of the issue of anthropomorphism in Part III.

In Part IV I will discuss the main issues pertaining to language as an indication that a being is intentional. I will examine arguments such as those of Regan and Stich, in which the issue of anthropocentrism, in relation to the language debate, is highlighted.

In Part V I will discuss a popular alternative to the intentional stance - animal behaviourism - which appears to have been adopted by cognitive ethologists everywhere. Just as it was shown to be a very narrow and problematic approach to human psychology some decades ago, I will argue that behaviourism is equally inapplicable to non-human animals.

I will relate the issue of attributing beliefs and intentions to non-human animals to the important ethical issues which are at stake in the question of non-human intentionality in Part VI.

In conclusion, I will re-evaluate Everyyperson's position in the light of this discussion. My own intention is to show that those problems in attributing beliefs and intentions to non-human animals, and indeed other unclassified beings such as GP, which cannot be avoided through exercising caution, are not enough to justify dismissing the intentional stance.

## Part I

The intentional stance is the strategy of interpreting the behaviour of an entity (person, animal, artefact, whatever) by treating it *as if* it were a rational agent who governed its "choice" of "action" by a "consideration" of its "beliefs" and "desires".<sup>5</sup>

Adopting the intentional stance towards a given being entails assuming that the behaviour of this being can be explained and understood in terms of its beliefs, desires and intentions, that is, *what it thinks and feels*. An example of an intentional explanation would therefore be: 'the cat is scratching on the kitchen cupboard because he *thinks* the cat food is in there'. Copeland contrasts intentional explanations, which refer to *mind* states, with explanations which refer to *brain* states, such as 'explanations of behaviour that are couched directly in terms of electrical activity in the agent's cortex'.<sup>6</sup> Intentional explanations, then, focus on the *content* of the mind - primarily, beliefs and desires - which are assumed to play some sort of causal role in relation to the behaviour of living beings. In order to explain this role, it is important to say a word about beliefs and desires themselves.

Beliefs and desires are intentional because they are 'about' something - they exist in virtue of the fact that they have some sort of representational content. Thus, I do not just have beliefs - I have a belief *that my friend is downstairs*, or a desire *to see my friend*. We can therefore say that beliefs and desires exhibit intentionality because they are extensive. When we adopt the intentional stance, we assume that behaviour is motivated by the interaction between a desire and one or more congruent beliefs. Thus my behaviour of going downstairs and saying hello to my friend Taliessin could be said to be indicative of my

---

<sup>5</sup> D.C. Dennett, *Kinds of Minds* (Phoenix, London, 1996), p.35.

<sup>6</sup> B.J. Copeland, *Artificial Intelligence: A Philosophical Introduction* (Basil Blackwell, Oxford, 1993), p.56.

belief that Taliessin is downstairs, coupled with my desire to see her. Similarly, an intentional explanation of the behaviour of a polar bear might be that 'the bear is pounding on the ice above the den of a seal because it has the belief that a seal is under the ice, and the desire to eat that seal'. We derive the animal's intentions from its (apparent) beliefs and desires.

Such conclusions regarding intentions are likely to be based on the premise that the being in question, whether human or not, is *aware* of what it is doing and why: that it is conscious. Consciousness, like beliefs, is intentional, and thus one must be conscious *of* something.

Some philosophers (such as Dennett<sup>7</sup> and Carruthers<sup>8</sup>) have argued that an additional *type* of belief exists, without which an intentional being cannot be said to be conscious. This is known as a 'second-order belief', which is simply a belief *that I believe such and such*.<sup>9</sup> To be conscious, argue these philosophers, a being must apply the belief *that it has beliefs* to its beliefs of everything else, otherwise the consciousness has no object. Second-order beliefs are much more abstract entities than 'ordinary' beliefs, and they are less likely to be manifested in behaviour other than verbal. It is impossible to say whether or not non-human animals possess such beliefs at all. Carruthers and others emphatically deny such beliefs to non-human animals without being able to prove or disprove such claims.

It is ultimately the issue of consciousness of non-human animals that is at stake in the various debates about intentionality, and which has thus rendered the attribution of intentionality to non-human animals problematic. But besides these controversial issues, the intentional stance itself, as a 'strategy of interpreting behaviour',<sup>10</sup> is not above criticism.

## Part II

One of the major problems in attributing intentionality to non-human animals is the nature of the intentional stance which most of us tend to

---

<sup>7</sup> Dennett, 'Kinds of Minds'

<sup>8</sup> P. Carruthers, *The Animals Issue* (Cambridge University Press, Cambridge, 1992)

<sup>9</sup> This explanation of second-order belief is paraphrased from Carruthers, 'The Animals Issue', p.178.

<sup>10</sup> Dennett, 'Kinds of Minds', p.35.

adopt. As Dennett has pointed out on numerous occasions, inherent in this stance is the assumption that the being towards which we adopt this stance is a *rational* being, whose beliefs and desires are *accurately reflected in, and verifiable through observation of, their behaviour*.<sup>11</sup>

There are a considerable number of problems with such a stance. The first is that the assumption of rationality is based on a secondary assumption that the being in question will always reason to act *in favour of its own best interests*, and thus that he/she knows what these are. This is quite a stringent condition to apply to non-human animals, because we cannot even say this of human beings, particularly young children or the mentally ill. There is a tendency to fail to allow for the possibility that non-human animals can, at times, be irrational - just like humans. This attitude is obvious in David Attenborough's explanation of polar bear behaviour in the documentary *Polar Bear*.<sup>12</sup> Two young bears engage in what appears to be aggressive behaviour, without doing serious physical harm to one another. Attenborough explains that that the polar bears are engaging in play fighting *to prepare for their lives as adult male bears*, as if the bears *desire* to be strong adult bears, and *believe* that 'play-fighting' will make them so. This explanation overlooks other possibilities, such as the possibility that the bears may be engaging in this activity for no other reason than that they enjoy doing so.

The reason for this oversight is that the assumption of rationality usually leads to plausible explanations. Should we fail to take rationality as a starting point, it would be an almost impossible task to predict the most likely course of action of an intentional being. The problem is that when non-rational or irrational behaviour *appears* rational from an external point of view, the explanation which is derived may fit the situation whilst simultaneously failing to reflect the beliefs and desires behind the action.<sup>13</sup>

Alternatively, we may mistake the 'rational' behaviour of animals for irrational behaviour. Dennett gives the following example of a frog which swallows a baited fishing line:

---

<sup>11</sup> See especially D.C. Dennett, *The Intentional Stance* (MIT Press, Massachusetts, 1987).

<sup>12</sup> D. Attenborough, *Polar Bear*, Produced by Martha Holmes and Keith Schole for BBC Worldwide, Ltd., Sydney: ABC Video.

<sup>13</sup> We are not freed from this dilemma automatically if we assume rationality whilst granting that we are sometimes wrong in this assumption, for we have to be able to *recognise* situations in which the agent is not or has not been rational. This brings us back to our original question of interpretation.

The frog has made a mistake, but *exactly* which mistake(s) has it made? What did the frog “think” it was grabbing? A fly? Airborne food? A moving dark convexity? We language users can draw indefinitely fine distinctions of content from the candidate frog-thought.<sup>14</sup>

Adopting the intentional stance, we therefore run the risk of grossly misinterpreting the behaviour of non-human animals, and with it attributing imprecise or incorrect beliefs and intentions. This error can occur in varied cases. In Dennett's example, it occurs due to the imprecision with which we ascribe particular intentions to a non-human animal. Error may also occur in relation to the degree of precision with which we isolate a behaviour which warrants an interpretation.

Thus another problem with adopting the intentional stance is that we tend to apply the intentional stance to the whole of the non-human animal's behaviour, assuming a rational explanation for *all* of it. This approach allows no room for the errors which non-human animals make, such as choosing an impractical location to build a nest, or wandering off and being unable to find a way back to a community or colony. We simply explain these as if the animals behaviour is an accurate reflection of its belief-desire, and that we are interpreting it correctly.

In fact, in the case of non-human animals, the only way we measure the ‘truth’ of an intentional account is against the standard of rationality: if the explanation is reasonable and fits the picture, it is very likely to be taken as an accurate and adequate explanation. This is problematic because, as I have shown in this section, a rational explanation may not give an accurate account of the beliefs and desires held by non-human animals. Moreover, many rational explanations are available for the one behaviour: there is no foolproof way of deciding which of these is the appropriate explanation.

### Part III

Here we expose the underlying anthropomorphism of the intentional stance: we treat all intentional systems as if they were just like us - which of course

---

<sup>14</sup> Dennett, ‘Kinds of Minds’, p.51.

they are not.<sup>15</sup>

Fortunately for GP, GP's beliefs and desires were of such a nature that Everyperson's interpretive strategies culminated in a more-or-less accurate view (once corrected) of what GP's behaviour was *really* signalling. Everyperson simply based her interpretation on the assumption that GP was just like herself.

Anthropomorphism is a problem which arises because the intentional stance is a strategy for interpreting behaviour, and is necessarily applied from a point of view. Thus the attribution of intentionality is subject to the limits of the interpreter. Nagel illustrates this view in his essay, 'What is it like to be a bat?', in which he argues that 'the subjective character of experience...is not analysable in terms of any explanatory system of functional states, or intentional states'.<sup>16</sup> He emphasises the fact that there are elements of subjective experience which are inaccessible to observers. The implication is that these elements may constitute data which are fed back into the mind, undetectably influencing behaviour. Thus we can have a case where, in what we perceive to be the exact same set of circumstances and environment, an immeasurable qualitative difference may cause a being to interpret the context in a different way.

Nagel's essay is typically assumed to be a polemic against anthropomorphism. Nagel does indeed argue against the practice of assuming that we can know everything about the experience of another creature (and therefore whether or not to attribute beliefs and intentions to a particular creature). But if we take Nagel's argument in the strongest sense,<sup>17</sup> the implication is that human experience is so different to the experience of non-human animals that we cannot possibly gather the evidence required to attribute intentions and beliefs to them. If we accept this conclusion, there is no reason to attribute beliefs and intentions to non-human animals in the first place, as even if we did, their beliefs and intentions may be so different to those which we understand that we are no closer to understanding non-human animals than we were in the first place. In other words, Nagel's stance

---

<sup>15</sup> Ibid., p.43.

<sup>16</sup> T. Nagel, 'What is it Like to be a Bat?' in *The Mind's I: Fantasies and Reflections on Self and Soul*, composed and arranged by D.R. Hofstadter and D.C. Dennett (Penguin, Hammondsworth, 1981).

<sup>17</sup> As for instance Dennett has done. See *Kinds of Minds* in particular for such an interpretation of Nagel's argument.

can lead to an anthropocentric<sup>18</sup> position in regard to beliefs and intentions.

If we reject anthropomorphism altogether, this may lead to the attitude that not only does it render an interpretation of non-human animal behaviour unscientific, but that the fruits of an interpretation tainted with this bias are wrong. This can lead to the situation which Dennett describes in *Kinds of Minds*:

So where we recognise that much of what we think of the awfulness of pain...involves imagining...anthropomorphic accompaniments, we generously decide that they are just accompaniments, not "essential" to the brute phenomenon of sentience.<sup>19</sup>

Dennett's remark brings to our attention the fact that the conclusion that anthropomorphic interpretations are wrong does not follow from the premise that such interpretations *can be* incorrect or inaccurate. We must be careful not to jump to conclusions in either direction if we are really to be faithful to a scientific approach. We should not dismiss the fact that 'anthropomorphic interpretations' often *appear* to explain the beliefs and intentions of non-human animal behaviour adequately, and certainly allow us to predict their behaviour much of the time.

Furthermore, if we hold that humans evolved from a non-human ancestry, we must accept that we will be similar to non-human animals in a number of determined as well as a number of as yet undetermined ways. Apparently 'anthropomorphic' explanations may be closer to the truth than some would argue. To dismiss them would therefore be a mistake. As Dennett states of the issue:

What we may tend to overlook...is the possibility that we are subtracting, on one path, the very thing we are seeking [ie. the correct explanation of non-human animal behaviour] on the other.<sup>20</sup>

---

<sup>18</sup> Such a stance is said to be anthropocentric (as opposed to anthropomorphic) because it preferences the human perspective and experience over any other perspective or experience, namely that of non-human animals. In this case, the implication of the anthropocentric viewpoint is that only what humans have experienced as a belief or intention can be recognised as such. If the experience of a non-human animal is so alien to us that we cannot discern its beliefs or intentions, the anthropocentric philosopher (if one will permit what I see to be a gross contradiction in terms) will conclude that the animal in question is not an intentional being as all. They do so because they are looking for a distinctly human type of belief or intention.

<sup>19</sup> Dennett, 'Kinds of Minds', p.128.

As for anthropocentrism, this is a problem which needs to be overcome even by those championing the existence of consciousness in non-human animals. A case in point is Tom Regan's discussion, in which he effectively divides animals into two *distinct* and mutually exclusive groups<sup>21</sup>: humans and non-human animals.<sup>22</sup> This approach is useful to some extent, but it tends to render invisible or even insignificant the differences between animal species in relation to the intentionality debate. It may well be that *some* animals have beliefs and intentions, whilst others do not. Such a possibility is denied in Regan's sweeping statement that 'even if primates show that they are able to use a language [and thereby show that they have beliefs and intentions], they would prove to be the exception rather than the rule'.<sup>23</sup> This quotation illustrates the dangers of the anthropocentric tendency to group a large variety of animals together when it comes to intentionality. It leads to an 'all-or-nothing' stance, embodied in the view that all animals (except for humans, which are noticeably absent from this group) have beliefs or intentions, or none of them do.

If we are to attribute beliefs and intentions to non-human animals, we must avoid an anthropocentric stance. However, we must not confuse anthropocentrism with anthropomorphism. To dismiss anthropomorphism completely may be (to borrow a phrase from Stitch), 'to throw out the baby with the bathwater'.<sup>24</sup> Ideally, we need to tread the very fine line between the insights which emerge from the so-called 'anthropomorphic' approach on one hand, and the biases of anthropocentrism on the other.

## Part IV

And now, we meet quite often,  
Those empty pants and I,  
And we never shake or tremble

---

<sup>20</sup> Ibid.

<sup>21</sup> This division is usually taken for granted as fact in the intentionality debate, as is reflected in the approach to this very article.

<sup>22</sup> See especially T. Regan, *The Case For Animal Rights* (University of California Press, Los Angeles, 1983), pp.66-7.

<sup>23</sup> Ibid., p.39.

<sup>24</sup> S. Stitch, *From Folk Psychology to Cognitive Science: The Case Against Belief* (Cambridge University Press, Cambridge, 1983), p.4.

We both smile  
And we say  
“Hi!”<sup>25</sup>

At the end of Dr Seuss’s tale, GP and Everyperson establish verbal communication, being fortunate enough to both use language, and the *same* language at that. Language is a medium we use to establish whether or not beliefs and intentions can be attributed to another being. If I say ‘I am going to put the cat outside because I think he wants to go to the toilet’, (assuming we are in the same language community), you can make sense of my behaviour immediately, and you might then hesitate to bring the cat back inside immediately, even if you desire to. If you are not sure about what beliefs and intentions are behind my behaviour, you can simply ask me and I can give a detailed verbal response.

Of course, I can always lie to you. Or it may be the case that I am unable to articulate something, or even that what I do say is misinterpreted. But by and large, we can say that it is very likely that a human being uses language to express *a* desire or *an* intention, even if to deceive. From this we can infer that a person who uses language is an intentional being.<sup>26</sup>

In this account, I have presented language as a medium for the articulation of pre-established beliefs and desires. These may still be present if language is not - it is simply more difficult to ascertain their presence in this case. However, some philosophers and scientists have argued that language facilitates the construction of beliefs and desires, and without it, no being can be said to be intentional at all.<sup>27</sup>

Even when we take for granted the assumption inherent in this argument, that non-human animals do not use language, the argument remains problematic. Firstly, such an argument assumes that language *precedes* beliefs and intentions. If this is the case we cannot explain how human babies, as non-linguistic beings, make the transition to linguistically proficient beings, because we cannot argue that these babies learn by believing that words resemble particular concepts.<sup>28</sup> But we DO know that young children learn language, and that before doing

---

<sup>25</sup> Seuss, ‘What Was I Scared Of’?

<sup>26</sup> I will leave out a discussion of the philosophical creature, the Zombie, who exists for the purpose of undermining this conclusion. I feel that Dennett deals with Zombies very well in *Consciousness Explained*, 1991.

<sup>27</sup> See D. Davidson, ‘Rational Animals’ *Dialectics*, 36/4 (1982) and Stich, ‘From Folk Psychology to Cognitive Science’ for arguments of this type.

<sup>28</sup> This point is also made in Regan, ‘The Case for Animal Rights’, p.44.

so, must rely on a selection of non-verbal behaviour (such as crying at the sight of a dog; laughing, smiling and waving one's arms about when mum opens the refrigerator etc) in order to express beliefs and desires. Experience teaches us that beliefs and language must be distinct in order for the former to precede the latter.

Secondly, by arguing that language is a necessary condition for intentionality, we risk identifying particular linguistic constructions with certain beliefs. An example of such a position is given by R.G. Frey, as discussed by Regan:

According to Frey, animals lack beliefs because *what* is believed (the object of belief) is that a given sentence is true; and since animals lack linguistic proficiency, they cannot believe that any sentence is true. That being so, they cannot believe anything and so, given that beliefs are necessary for desires, they cannot desire anything.<sup>29</sup>

The type of argument put forward by Frey and others leads to 'paradoxes of intentionality',<sup>30</sup> which occur when belief *tokens* are confused with belief *types*, or vice-versa. According to Frey's logic, Fido the dog cannot be said to believe that the cat is up tree X, unless he believes 'Lambie [or the name or some other representation of the cat in question] is up tree X', or something almost word-for-word similar.

Such an argument seems preposterously strong: it not only excludes non-human animals, but also non-English speaking humans, young children and anyone else who is unable, for whatever reason, to formulate such a sentence. If we admit that these beings can believe something is true without possessing the token or sentence for that belief, then we must allow that possessing a particular belief-token cannot be a necessary criterion for having a belief. Regan extends this objection to argue that if a belief-type cannot be reduced to a belief-token, it makes no sense to claim that belief is constituted by a token.<sup>31</sup>

Philosophers such as Davidson, Stich and Frey, in holding that language is an essential criterion in attributing intentionality to other beings, seem to overestimate the role played by language in moulding beliefs. But language and beliefs are different things. This is evident at

---

<sup>29</sup> Ibid., p.39.

<sup>30</sup> This phrase is one of Copeland's. For further discussion, see Copeland, 'Artificial Intelligence', pp.199-200.

<sup>31</sup> See Regan, 'The Case for Animal Rights', p.41.

times when we are aware that language is inadequate for our purposes, and we must communicate our beliefs and desires as best we can. It is also evident at other times, we find that expressing a belief or desire verbally can clarify it for us.<sup>32</sup> The tension between language on the one hand and our beliefs, desires and intentions on the other supports the notion that these are separate and distinct faculties, even if they do usually function interdependently.

Those who adopt the position that language is necessary for intentionality often assume that non-human animals do not have language. Such an assumption discounts the possibility of non-verbal communication, which, although not as complex as a verbal language, indicates the presence of beliefs and desires. If the argument about language is based on the premise that human language is the only way we can ascertain the presence of *second-order beliefs* (assuming, for the moment, that these are a necessary condition for intentionality), it does not follow that a lack of verbal language signifies a definite lack in second-order beliefs.<sup>33</sup>

Another objection to this argument is the controversial point that several studies have shown the ability of non-human animals to use human languages such as sign language.<sup>34</sup> These studies and others like them consistently undermine the assumption that language is an exclusively human faculty. If it is through language that second-order beliefs emerge, we must, in the light of these experiments, acknowledge that second-order beliefs can be attributed, at least to the non-human animals who have so far successfully demonstrated some degree of linguistic competence.

The subject of non-human animal communication is one which is highly controversial, partly because there is no clear-cut method of distinguishing those instances of animal behaviour which constitute an act of communication from those which are not intended to communicate anything. This is another difficulty arising from the human position.

---

<sup>32</sup> Dennett draws attention to this matter in *The Intentional Stance*: 'Language enables us to formulate highly specific desires, but it also forces us on occasion to commit ourselves to desires altogether more stringent in their conditions of satisfaction than anything we would otherwise have any reason to endeavour to satisfy'. (p.20).

<sup>33</sup> See Part 1.

<sup>34</sup> An exposition of such studies is beyond the scope of this article. See for instance the work of Sue Savage-Rumbaugh, or discussion in *The Great Ape Project*, ed. P. Singer and P. Caveleiri (Fourth Estate Publishers, London, 1993).

It is perhaps for this reason that the major studies pertaining to non-human animal communication have all been based on the view that an animal has language if it has the ability to adopt *human* language. The view that non-human animals may have a language limited to their species does not seem to constitute, in the eyes of scientists, sufficient evidence that they use language.<sup>35</sup>

However, one can object that basing judgements about the linguistic faculty of non-human animals on their ability to use human language is a very anthropocentric view. As with the arguments about rationality, this 'language' criterion seems to demand much more for non-human animals<sup>36</sup> than it does for humans as subjects of a similar situation.

## Part V

But then a strange thing happened.  
Why, those pants began to cry!  
Those pants began to tremble.  
They were just as scared as I!<sup>37</sup>

The above stanza captures Everyperson's act of applying the intentional stance perfectly. She observes GP's behaviour, assumes that GP must be similar to her, and infers beliefs and intentions from GP's behaviour based on this similarity. Of course, the interpretation that GP is scared is made after Everyperson's previous - and incorrect - interpretation resulting in the conclusion that GP's beliefs and desires are malignant.<sup>38</sup>

---

<sup>35</sup> For example, see Regan, 'The Case For Animal Rights'.

<sup>36</sup> In Savage-Rumbaugh's work, Bonobo Chimpanzees are expected not only to learn a language, but to communicate in a variety of ways which they are not used to (such as communicating via an electronic keypad). We expect the Bonobos to learn new behaviours *as well as* an entirely new language. On the human scale, this would be like asking of human subjects that they learn and adopt the principles of echolocation using squeals instead of words. While such an experiment can teach us a lot about the way human beings learn, it does not necessarily lend decisive insight into our linguistic abilities.

<sup>37</sup> Seuss, 'What Was I Scared Of?'

<sup>38</sup> One can argue that Everyperson is still justified in applying the intentional stance, as she was correct in assuming that GP was trying to run to her. It may in fact be the *precision* of Everyperson's judgements that are the grounds for the errors: Everyperson expects too much of the intentional stance, just as Dennett shows we expect to know too much about the intentions of a Frog in order to judge whether it is being rational or not. (See Part II).

A possible solution to the problem of ascribing beliefs and intentions to non-human animals which avoids the pitfalls of adopting the intentional stance is simple: do not attribute beliefs and intentions *at all*. In spite of the fact that such a view is counter-intuitive, it has been taken up by many scientists as if it were an established truth. This dogmatism, as Griffin<sup>39</sup> terms it, is widely known as 'behaviourism'. Though outmoded in relation to humans, 'the behaviouristic viewpoint has been accepted, implicitly, if not explicitly, by most ethologists studying animal behaviour'.<sup>40</sup>

The behaviourist doctrine, in relation to animals, holds that the intentional explanations of non-human animal behaviour are human constructions which have no basis in fact whatsoever; instead, all behaviour is in response to 'independent variables' or environmental stimuli only (including the chemical and neural environment of the brain and body).<sup>41</sup> Thus behaviourists attempt to account for animal behaviour in terms of environmental histories and/or chemical analysis of brain states.

A problem with the behaviourist position is that it is very limited because it requires the study of complex behavioural histories. Heyes and Dickinson adopt a behaviourist approach in experiments designed to determine the presence of animal beliefs. They emphasise the impact of the environment on animal behaviour, as can be seen in the following passage:

Our analysis suggests that in order to find out whether any given example of animal action is intentional it is essential to measure the effects on that action of changes in the animal's environment *which could be expected to alter the content of the animal's mental states*.<sup>42</sup>

I have emphasised what I believe to be the key element of this passage, which highlights the interpretive function of behaviourism. This passage thus allows us to see that the criticism that adopting the intentional stance is based on *mere interpretation and speculation* can also be leveled at behaviourists.

---

<sup>39</sup> See D. Griffin, *Animal Thinking* (Harvard University Press, Harvard, 1984), pp.18-24.

<sup>40</sup> *Ibid.*, p.19.

<sup>41</sup> In explaining the doctrine of behaviourism I have made use of the entry on the aforementioned from *The Cambridge Dictionary of Philosophy*, 1995, p.67.

<sup>42</sup> C. Heyes and A. Dickinson, 'The Intentionality of Animal Action', *Mind & Language*, 5/1, (1990), p.94 - emphasis added.

In predicting animal behaviour, the intentional stance has the advantage over behaviourism: the former is quicker and less complicated than the latter. Furthermore, the behaviourist, without recourse to a mind, runs into problems when trying to explain the faculty of memory in non-human animals, or prima facie random behaviour. Overall, assuming beliefs and intentions in animals seems to 'fit' the picture altogether better than behaviourism, which Griffin rejects outright, 'not so much because it belittles the value of living animals, but because it leads to a seriously incomplete and hence misleading picture of reality'.<sup>43</sup>

It has been argued by others that the intentional stance cannot be discarded in favour of behaviourism, because the latter is simply a redescription strategy, which attempts to draw the same conclusions as would be drawn from the intentional stance, by simply employing a more dense vocabulary. Routley makes this point, arguing that

each new redescription, obtained for instance by iteration of "something like", is in turn intentional, and requires itself elimination - not to say explanation (unless "something like...something like belief" collapses back to the problematic "something like belief").<sup>44</sup>

The point is that, in the end, we are no nearer to possessing a self-standing, complete explanation of behaviour even if we adopt the behaviourist stance. Instead, we end up with an infinite regress of intentional explanations.

Those who would hold a behaviourist view of non-human animals and deny the same for humans are in a tenuous position. Given our similarities with non-human animals (illustrated by the fact that the intentional stance often does work in predicting the behaviour of non-human animals), it seems unreasonable to assume that intentionality can actually be applied to humans if it cannot also be applied to non-human animals. Griffin expresses this point beautifully:

Accepting the reality of our evolutionary relationship to other animals, it is unparsimonious to assume a rigid dichotomy of interpretation which insists that mental experiences have some

---

<sup>43</sup> D. Griffin, *Animal Thinking*, (Harvard University Press, Harvard, 1984), p.24.

<sup>44</sup> R. Routley, 'Alleged Problems in Attributing Beliefs and Intentionality to Animals', *Inquiry*, 24/4, (1981), p.411.

effect on the behaviour of one species of animals  
but none at all on others.<sup>45</sup>

Thus if we assume the behaviourist position, we can see that the problem in *not* attributing beliefs and intentions to non-human animals bleeds into the problem of attributing beliefs and intentions to *any* animals, including humans.

## Part VI

I put my arm around their waist  
And sat right down beside them.  
I calmed them down,  
Poor empty pants  
With nobody inside them.<sup>46</sup>

Having recognised GP's status as an intentional being, Everyperson shows consideration for the feelings and well-being of GP. In this stanza it is evident that whether or how we attribute beliefs and intentions to non-human animals is directly related to certain ethical considerations about our interactions with non-human animals. The standard 'scientific' viewpoint is that non-human animals are not intentional beings, and that they are therefore not within our sphere of moral concern. This view is espoused by Carruthers, who concludes that

the arguments of Regan and Singer for extending  
the principle of equal consideration of interests to animals...were  
in any case founded on a false  
premise. For both assume that animal desires and  
animal experiences are relevantly similar to our  
own - in particular, that they are conscious ones.<sup>47</sup>

If Carruthers' argument is correct, and animals are not 'appropriate objects of moral concern',<sup>48</sup> we may be able to perform animal experiments or practise factory farming without overstepping any moral boundaries. The fact that our current practices relating to non-human animals operate without considering non-human animal

---

<sup>45</sup> As quoted in Regan, 'The Case for Animal Rights', p.35.

<sup>46</sup> Seuss, 'What Was I Scared Of?'

<sup>47</sup> Carruthers, 'The Animals Issue', p.191.

<sup>48</sup> *Ibid.*, p.193.

interests as equal to our own would seem to indicate that the above view is held by many people in, if not most members of, our society.

Such established practices and customs cannot be taken lightly, and have an inestimable influence on philosophical or scientific investigations into the subject of non-human animal intentionality. One of the problems, then, in attributing beliefs and intentionality to non-human animals may be that to do so would be to acknowledge that non-human animals are worthy of moral consideration, which would almost definitely entail the cessation of the aforementioned practices. The reluctance of people to attribute intentionality to non-human animals may therefore have more to do with a desire to continue current practises involving animals than it has to do with the quality or indeed the quantity of the evidence for or against non-human animal intentionality.

The question which Carruthers and other proponents of this view fail to address adequately is whether or not moral consideration of other beings *should* hinge on the attribution of beliefs and intentions by us. If we answer that it should, we have yet to gather conclusive evidence that non-human animals are or are not intentional beings. But it is also possible that we can include non-human animals in our moral sphere, even if we cannot determine whether a being is intentional or not. For instance, it is certainly possible to imagine that pain behaviour exhibited by a slug (I choose a slug for my example because a slug is a less-likely candidate for intentionality) writhing in salt is indicative of genuine suffering, even if we are not willing to attribute belief and intentions, as we know them, to such a creature.

Surely, when possible beings of moral concern are in question, it is pertinent to err on the side of caution rather than to jump to conclusions which, if it were discovered that non-human animals were intentional beings worthy of our moral consideration, would have done incalculable damage in the meantime.

## Conclusion

I have argued that there are several problems inherent in the intentional stance, arising from the potential anthropocentrism and anthropomorphism of the human interpreter. Sections II, III and IV

particularly emphasise the fact that a major problem in attributing beliefs and intentions to non-human animals lies in the type of assumptions inherent in the typical intentional stance. I have shown that these assumptions, such as that of rationality and of the faculty of language, lead to conditions which may be too stringent in the case of non-human animals, whereas weaker indications of such would be enough to satisfy criteria for attributing beliefs and intentions to humans.

On the other hand, there are equally problems if we choose *not* to attribute intentionality to non-human animals, and these in fact cause more problems than adopting the intentional stance in the first place. As my discussion of behaviourism in Part V illustrates, the grounds for attributing beliefs and intentions to humans are undermined if we do not acknowledge the presence of such in non-human animals. In light of this point, a tenuous position such as animal behaviourism is more likely to be adopted toward non-human animals only, in order to avoid facing the possibility of having to treat non-human animals as objects of moral concern.

Nonetheless, because it is so accessible and relatively reliable, most of us cannot avoid adopting - at one stage or another - the intentional stance toward another being. However, just as Everyperson's experience illustrates, such a stance is fallible. To draw any reliable conclusions the stance must not be applied without consideration of contingencies, differences between the non-human animals in question and ourselves, and other variables. It is of too much value to be dismissed. And there remains the possibility that, for all of our scientific studies, the intentional stance (applied cautiously) may remain the best way to understand and predict the behaviour of non-human animals. This final point, I believe, is one which Thomas Nagel has been making all along. In his words:

There are things about the world and life and ourselves that cannot be adequately understood from a maximally objective standpoint, however much it may extend our understanding beyond the point from which we started. A great deal is essentially connected to a particular point of view, or type of point of view, and the attempt to give a complete account of the world in objective terms detached from these perspectives inevitably leads to false reductions or outright denial that certain

patently real phenomena exist at all.<sup>49</sup>

## Biography

*Anne Quain is currently an undergraduate student at the University of Sydney, Australia. She is taking a philosophy major, and intends to pursue postgraduate studies in philosophy after graduating with honours in 1999. Her interests within philosophy include issues pertaining to animals, philosophy of mind, ethics and the history of philosophy (early modern). In her spare time, Anne enjoys reading, belly dancing and scripting short films.*

---

<sup>49</sup> As quoted in Dennett, 'The Intentional Stance', p.5.

