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The science of animal sentience and the politics of animal welfare should be kept separate

Commentary on [Rowan et al.](#) on *Sentience Politics*

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Abstract: Although linked historically by Rowan et al., the scientific study of animal sentience and political campaigns to improve animal welfare should be kept separate, for at least two reasons. First, the separation makes it clear that standards of evidence acceptable for ethical or political decisions on animal welfare can be lower than those required for a rigorously scientific approach to animal sentience. Second, it helps to avoid confirmatory bias in the form of giving undue weight to results that are in line with pre-conceived ideas and political views.

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1. Science and politics

Animal sentience – particularly the capacity to feel pain – is so closely tied up with the ethics of how we should treat animals that it is easy to think that a scientific evaluation of the evidence for animal sentience is the same as an ethical evaluation of animal welfare itself. But they are not the same. The belief that non-human animals are sentient – that is, capable of consciously experiencing suffering, pain and pleasure - is of, course, the reason many people believe that animal welfare is important (Singer, 1975, 1990; Duncan, 1981, 1996; Dawkins, 1990; Mellor, 2019). However, the question of whether animals *are* sentient is a factual matter while the question of *how sentient beings should be treated* is a matter of ethics and policy-making. One is a question of science (what is the case), the other is a question of morality and politics (what we ought to do about it). They can and should be dealt with quite differently. Whereas Rowan et al. (2021) tie the two together in a valuable historical overview, their target article blurs this distinction in a way that is potentially misleading.

The reason the science of animal sentience and the politics of animal welfare need to be kept separate (while acknowledging their obvious links) is that they raise two different questions that have to be answered in very different ways. The process of arriving at a scientific conclusion involves looking at all the available evidence and evaluating every single one of the objections that have been raised. If there is evidence that does not quite fit a current hypothesis, it needs to be investigated, not ignored. Scientists are not (or should not be) afraid to say “We don’t know”. In the case of animal sentience, there is a great deal we do not know (Carruthers, 2019; Dawkins, 2012, 2021).

The process of arriving at a political policy, on the other hand, often means ignoring doubts even to the point of being impatient with scientists who keep emphasizing the uncertainties of what is known. Many people are already so convinced that animals are sentient beings that they see no need to wait for any more evidence before wanting laws and regulations to protect them. In other words, the standards of evidence for political decisions can be much lower than those in science. Birch (2017) made this view explicit by proposing the Animal Sentience Precautionary Principle or ASPP, as follows:

“ASPP: Where there are threats of serious, negative animal welfare outcomes, lack of full scientific certainty as to the sentience of the animals in question shall not be used as a reason for postponing cost-effective measures to prevent those outcomes.”

Birch justifies this use of uncertain evidence on the grounds that errors due to wrongly assuming lack of sentience in animals who are sentient are far more serious than errors due to wrongly assuming sentience in animals that are not. It is important to note here, however, that this is an ethical judgement, not a scientific one. Birch is advocating a lower standard of evidence for political decisions than for scientific ones, but the view that animals should be given the benefit of the doubt in the face of uncertainty about their sentience does not make it factually more likely that they actually are sentient. It simply reduces the strength of scientific evidence that is considered necessary in the moral calculus of how to treat animals.

It is in this light that recent ‘declarations’ about animal sentience discussed by Rowan et al. should be seen, not as the last word on conclusions reached with the highest scientific standards but as statements to the effect that, in the view of certain people, enough is now known for policy-makers to go ahead and pass legislation on the basis of lower standards of evidence. For example, the Cambridge Declaration on Consciousness (2012) states:

“non-human animals have the neuroanatomical, neurochemical, and neurophysiological substrates of conscious states along with the capacity to exhibit intentional behaviors... Non-human animals, including all mammals and birds, and many other creatures, including octopuses, also possess these neurological substrates.”

This goes way beyond what the scientific evidence currently shows us. We do not actually understand what the ‘neurological substrates that generate consciousness’ are in any animal, human or non-human (Koch et al., 2016; Blackmore and Troscianko, 2018), and we certainly have no way of showing that these are present in octopuses. The declaration is thus a leap of faith, not a statement of scientific fact. And declaring something to be true beyond the available evidence does not constitute more evidence.

2. Politics and confirmational bias

There is another danger in bringing political views about animal welfare into scientific discussions about animal sentience, which is the damage this can do to science itself. As it is, scientific results are already threatened by various kinds of potential confirmational biases (giving more weight to facts that support what is already believed than to facts that go against it; Nickerson, 1998; Ioannidis et al, 2014, Bishop 2019). The last thing the scientific study of animal sentience needs is yet another bias in the form of pressure to give the benefit of the doubt to uncertain evidence on the grounds that to do so would strengthen the argument for giving more legal protection to animals or because it is in line with the views of a campaigning organization.

To maintain the scientific integrity of the study of animal sentience, therefore, it is more than ever important to maintain the distinction between science and policy-making. Both are valid endeavours in their own right. Both have a place in society; and at their best they feed off each other by challenging the other's assumptions. But they are different processes, with different aims, different criteria for success or failure and, crucially, very different views about standards of evidence.

In fact, science and policy-making are so different that it is quite possible to believe (as I do) that, morally, animals should be given the benefit of the doubt and their welfare should be protected, whilst also believing, at the same time, that scientifically, doubts should be given no benefits whatsoever and that every uncertainty should be uncovered and fully investigated. There is nothing contradictory about accepting lower standards of evidence for ethical or policy decisions than we do for scientific facts. What is unacceptable is to pretend that we know more than we do about animal sentience because it would fit better with what is believed already or would lend support to a political campaign. It is a matter of scientific integrity not to claim more than the evidence shows.

3. Conclusions

As Rowan et al. show, 'weight of evidence' and 'benefit of the doubt' arguments are increasingly accepted as good enough for answering the ethical question of animal sentience, namely, 'how *ought* sentient beings to be treated?'. But the more scientific questions such as which animals are sentient, how sentience arises from nervous tissue, how it evolved – these questions still remain to be answered. Finding answers to them will not be helped by asserting at the outset that this or that animal is sentient because the European Union or the UK Parliament has declared that they are. If we really want to understand animal sentience, we need to maintain scientific rigour, and that means emphasizing what we do not know and resisting the temptation to confuse moral with scientific certainty. Evidence-based policy is a desirable goal but policy-based evidence is not.

It is one thing to declare that animals are sentient, persuade people to sign petitions that they are, and, with enough public support, get this into legislation. But we should not confuse the standards of evidence that are necessary to make progress in that most difficult of all subjects – sentience – with the much lower standards of evidence that can satisfy the public or policy makers. Rowan et al. have made an important contribution to the parallel histories of animal sentience and animal welfare but by appearing to want to reduce scientific standards in the interests of their own ethical and political views, they have done a disservice to science and blurred an important distinction between science and politics.

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