

Review of: "Growing Confidence and Remaining Uncertainty About Animal Consciousness"

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Potential competing interests: No potential competing interests to declare.

The paper is interesting and well-written. As I am not a specialist in neurology, I am not able to assess the parts directly linked to this field, so I am going to focus the review on what I am knowledgeable of, namely the ways and difficulties of evaluating animals' abilities.

I would first need to point out the absence of all the biosemiotics and zoosemiotics fields and, consequently, of the concept of Umwelt. Considering the paper's focus is a deeply subjective ability, I find this absence questioning, and I think it is a weakness, especially regarding the concept of Umwelt, which is very strongly linked to the question of living beings' subjectivity.

I will then want to question some aspects, not because I think the author is wrong, but because they are interesting and should even be investigated more. The author mentions different characteristics of consciousness that are, in my opinion, more complex and less well-defined than the paper seems to indicate:

- The mental unity: What about fragmented personalities? Or cognitive degenerative issues that tend to separate parts of the mental functions from each other? People with DID, very severe schizophrenia, or advanced Alzheimer's can lack mental unity, yet nobody will pretend they are not conscious. Focusing on other species, we have examples (I am thinking about the works of Chapouthier in French, but can't think of works in English) of animals like flatworms, able to learn by stimulation, that can regenerate into two separated individuals when cut by the middle, both of them carrying the memory of what they learnt when they were one. How do we address unity in this kind of case?
- The mental causation: With this criterion, are you considering consciousness as a continuum, something that can appear from a more straightforward ability (because it is evident that very small children, for example, don't have this ability, but adults do) and, consequently, that can be lost? If so, can we scale a continuum of animal species being "more or less conscious"?
- The sense of self: This one is probably the most evident to find in the animal kingdom, but it also has its limits. In *The Man Who Mistook His Wife for a Hat*, for example, you have the case of this woman who, after a brain infection, loses her proprioception. She is still conscious (and deeply sadly conscious), even lucid on her condition, but still living with a body she has no more sense of.

All this is to say that the criteria proposed by the author are really interesting, but a deeper reflection on them is missing. The author explained why they were chosen, but not what happens in "limit" situations, if the criteria are necessary,

mandatory, or sufficient in trying to scope consciousness.

I also would like to add a bit of reflection regarding comments made by previous reviewers regarding the question of internal dialogue. I think we all need to remember that we are dealing here with fundamentally different species. We have no idea what an “internal dialogue” could be for them, and I have the feeling that we are here, again, trying to study animal consciousness by looking for the “consciousness as we know it” and not by understanding what “fundamental consciousness” is. On the point of internal dialogue, I would recommend the book of Helen Keller, especially when she explained how she perceived the world, her own mental world, and her body before she discovered the concept of having words to describe things. It gives quite an impressive insight into what it is, even for a Homo sapiens, to think without language.

Finally, a very minor correction is needed in the references list: “Damasio,” not “DOmasio.”