

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

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Potential competing interests: No potential competing interests to declare.

I enjoyed reading this essay on animal consciousness, given that I connect with animals on a regular basis through animal communication, animal Reiki, and small animal massage therapy.

I wholeheartedly agree with the following opinion: "The literature on consciousness in humans and other animals is vast. Critics lacking familiarity with this record often complain about a presumed lack of evidence and charge the field of consciousness research with being unduly conjectural. This does not appear to be a burden that certain other seemingly inaccessible phenomena have to meet. We have no first-hand evidence for the origin of our current universe or the evolution of certain dinosaurs into birds either, yet those are widely accepted facts of nature because a combination of logic, relevant though not real-time observations, theoretical modelling, agreed-upon vocabulary, and applicable philosophical perspectives have combined to generate a consensus view about the trajectory of those events." Through my own interactions with cats, dogs, birds, horses, pigs, cows, and even reptiles, I have come to both observe and understand that there is a consciousness at play in all animals, if we can only open our minds to it.

I found the section on mental causation interesting and can attest to having experienced proof that animals do indeed have the ability to invoke imagery and access memory: "Mental causation refers to the capacity for consciousness to initiate volitional activity, invoke imagery, or access memory (Feinberg and Mallatt, 2018). Humans can conjure images and recall memory from a state of idle thinking. The extent to which other animals do so is unclear, though the capacity of animals to recall situations from memory that lead to adaptive behavior when those situations recur is indicative of an imaginative form of consciousness among at least many vertebrates (Zachs et al., 2022)." In many animal communication sessions I have led over the years, time and time again, I am given images and information in my connection/dialogue with the animal that I couldn't possibly have known myself and which is confirmed as accurate by the animal's person. I have been shown images of rooms, objects, geographic locations, and also words or phrases that show an ability to invoke imagery and access memory and then to relay that on the part of the animal with whom I am connected. It should be noted that most communication sessions are conducted virtually over the phone or video call using a photo or with the animal on camera.

I agree with the statement that conscious experiences may be multiple and diversely situated in coleoid cephalopods: "Though differing dramatically in anatomical detail, brains that fit this description can be found in all vertebrates and arthropods. While the coleoid cephalopods likewise share this description, they also have the unique feature of having complex neural centers peripherally located from their centrally-organized brains. Particularly in octopi, more neural tissue

is found at the base of their eight arms than in their brains, raising the prospect that conscious experiences may be simultaneously multiple and diversely situated in those animals (van Woerkum, 2020; Carls-Diamante, 2022).” This calls to mind the documentary entitled, “My Octopus Teacher,” in which the narrator documented and presented the evolving relationship between himself and an octopus with several instances of highly conscious behaviour displayed by the octopus.

While consciousness is being explained here in this essay as something that has evolved and which directs action and behaviour, I believe it is consciousness which actually creates the life form in the first place: “Given the need to integrate multiple sensory inputs with ongoing motor responses in a unified and coherent manner, some level of consciousness must have arisen “when simple reflexives evolved into a unified ‘inner world,’ or ‘qualia,’ or the subjective feeling of things” (Feinberg and Mallatt, 2016; Feinberg and Mallatt, 2020). A number of authors agree with this assumption (Edelman, 2003; Griffin and Speck, 2004; Irwin, 2020; Lacalli, 2020, 2022). Consciousness became necessary especially once animals started moving about, in order to solve the logistical problems of decision making while in motion (Merker, 2005; Chittka and Wilson, 2019; Irwin, 2020; Vallortigara, 2021).” Assuming all life forms possess consciousness - whether one chooses to qualify it or not - specific examples would be useful in this section: “Summarizing the implications for comparative animal consciousness provided by the arguments above, the general consensus appears to be that the dramatic diversification of animal forms and interactions during the Cambrian over 500 million years ago led to natural selection for more complex nervous systems. These were required for discerning qualitative variations in sensory inputs, integrating various modes of information, controlling goal-directed motor behavior, and facilitating learning. In two major clades (arthropods and vertebrates) and at least one subclass of mollusks (coleoids), arguments for the capacity for consciousness are widely accepted.”

I found this essay to be an interesting analysis of consciousness in animals dependent on a nervous system and of a hierarchy in levels of consciousness in the animal world. It would be interesting, however, for the author to further expand the research to investigate the theory that animals must have some form of nervous system (neural activity) and that there are varying levels of consciousness. Without actually being inside these animals with a supposed lower level of consciousness, how can this be assumed? How do we explain the many instances of people interacting with animals with “no feelings” and witnessing incredible acts of emotion on the part of said animals (e.g., in *Kinship with All Life*, the author, J. Allen Boone, shows just that in his bonding experiences with different types of animals, including the common housefly!)? It would be beneficial to widen the definition of “consciousness” beyond the limiting scope it has been afforded at this time to perhaps dig a little deeper into what it is and how it is a common thread among all beings of this earth, from humans to animals to plants, to water. By studying the work of Dr. Masaru Emoto, one sees evidence of consciousness in water through its responses to varying positive and negative stimuli. In this case, the water is perceiving the positive or negative input and responding physically by altering its molecular form. Could that not also be consciousness? Although water is obviously not an animal, this could be one line in the vast network of life on this planet indicating a more comprehensive explanation for consciousness that perhaps unites it all.



Thank you,

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