Deleting the Human Clause: A Review of Ashley Shew's *Animal Constructions and Technological Knowledge*

Damien Williams, Virginia Tech

_____

Animal Constructions and Technological Knowledge is Ashley Shew's debut monograph and in it she argues that we need to reassess and possibly even drastically change the way in which we think about and classify the categories of technology, tool use, and construction behavior. Drawing from the fields of anthropology, animal studies, and philosophy of technology and engineering, Shew demonstrates that there are several assumptions made by researchers in all of these fields—assumptions about intelligence, intentionality, creativity and the capacity for novel behavior.

Many of these assumptions, Shew says, were developed to guard against the hazard of anthropomorphizing the animals under investigation, and to prevent those researchers ascribing human-like qualities to animals that don't have them. However, this has led to us swinging the pendulum too far in the other direction, engaging in "a kind of speciesist arrogance" which results in our **not** ascribing otherwise laudable characteristics to animals for the mere fact that they **aren't human**.[1]

Shew says that we consciously and unconsciously appended a "human clause" to all of our definitions of technology, tool use, and intelligence, and this clause's presumption—that it doesn't really "count" if humans aren't the ones doing it—is precisely what has to change.

In *Animal Constructions*, Shew's tone is both light and intensely focused, weaving together extensive notes, bibliography, and index with humor, personal touches, and even poignancy, all providing a sense of weight and urgency to her project. As she lays out the pieces of her argument, she is extremely careful about highlighting and bracketing out her own biases, throughout the text; an important fact, given that the whole project is about the recognition of assumptions and bias in human behavior. In Chapter 6, when discussing whether birds can be said to understand what they're doing, Shew says that she

> [relies] greatly on quotations…because the study's authors describe crow tool uses and manufacture using language that is very suggestive about crows' technological understanding and behaviors—language that, given my particular philosophical research agenda, might sound biased in paraphrase.[2]

In a chapter 6 endnote, Shew continues to touch on this issue of bias and its potential to become prejudice, highlighting the difficulty of cross-species comparison, and noting that "we also compare the intelligence of culturally and economically privileged humans with that of less privileged humans, a practice that leads to oppression, exploitation, slavery, genocide, etc."[3] In the conclusion, she elaborates on this somewhat, pointing out the ways in which biases about the "right kinds" of bodies and minds have led to embarrassments and atrocities in human history.[4] As we'll see, this means that the question of how and why we

---

[1] Ashley Shew, *Animal Constructions and Technological Knowledge* p. 107
[2] Ibid., p. 73
[3] Ibid., p. 89, n. 7
[4] Ibid., pg. 107—122

categorize animal construction behaviors as we do has implications which are far more immediate and crucial than research projects.

The content of *Animal Constructions* is arranged in such a way as to make a strong case for the intelligence, creativity, and ingenuity of animals, throughout, but it also provides several contrast cases in which we see that there are several animal behaviors which might appear to be intentional, but which are the product of instinct or the extended phenotype of the species in question.[5] According to Shew, these latter cases do more than act as exceptions that test the rule; they also provide the basis for reframing the ways in which we compare the behaviors of humans and nonhuman animals.

If we can accept that construction behavior exists on a spectrum or continuum with tool use and other technological behaviors, and we can come to recognize that animals such as spiders and beavers make constructions as a part of the instinctual, DNA-based, phenotypical natures, then we can begin to interrogate whether the same might not be true for the things that humans make and do. If we can understand this, then we can grasp that "the nature of technology is not merely tied to the nature of humanity, but to **humanity in our animality**" (emphasis present in original).[6]

Using examples from animal studies reaching back several decades, Shew discusses experimental observations of apes, monkeys, cetaceans (dolphins and whales), and birds. Each example set moves further away from the kind of animals we see as "like us," and details how each group possess traits and behaviors humans tend to think only exist in ourselves.[7] Chimps and monkeys test tool-making techniques and make plans; dolphins and whales pass hunting techniques on to their children and cohort, have names, and social rituals; birds make complex tools for different scenarios, adapt them to novel circumstances, and learn to lie.[8]

To further discuss the similarities between humans and other animals, Shew draws on theories about the relationship between body and mind, such as embodiment and extended mind hypotheses, from philosophy of mind, which say that the kind of mind we are is intimately tied to the kinds of bodies we are. She pairs this with work from disability studies which forwards the conceptual framework of "bodyminds," saying that they aren't simply linked; they're the same.[9] This is the culmination of descriptions of animal behaviors and a prelude a redefinition and reframing of the concepts of "technology" and "knowledge."

In the book's conclusion, Shew suggests placing all the products of animal construction behavior on a two-axis scale, where the x-axis is "know-how" (the knowledge it takes to accomplish a task) and the y-axis is "thing knowledge" (the information about the world that gets built into constructed objects).[10] When we do this, she says, we can see that every made thing, be it object or social construct (a passage with important implications) falls

---

[5] Ibid., pg. 107—122

[6] Ibid., p. 19

[7] On page 95, Shew makes brief mention various instances of octopus tool use; more of these examples would really drive the point home.

[8] Shew, pg. 35—51; 53—65; 67—89

[9] Ibid., p. 108

[10] Ibid., pg. 110—119

somewhere outside of the *0, 0* point.[11] This is Shew's main thrust throughout *Animal Constructions*: That humans are animals and our technology is not what sets us apart or makes us special; in fact, it may be the very thing that most deeply ties us to our position within the continuum of nature.

For Shew, we need to be less concerned about the possibility of incorrectly thinking that animals are too much like us, and far more concerned that we're missing the ways in which we're still and always animals. Forgetting our animal nature and thinking that there is some elevating, extra special thing about humans—our language, our brains, our technologies, our culture—is arrogant in the extreme.

While Shew says that she doesn't necessarily want to consider the moral implications of her argument in this particular book, it's easy to see how her work could be foundational to a project about moral and social implications, especially within fields such as animal studies or STS.[12] And an extension like this would fit perfectly well with the goal she lays out in the introduction, regarding her intended audience: "I hope to induce philosophers of technology to consider animal cases and induce researchers in animal studies to think about animal tool use with the apparatus provided by philosophy of technology."[13]

In *Animal Constructions*, Shew has built a toolkit filled with fine arguments and novel arrangements that should easily provide the instruments necessary for anyone looking to think differently about the nature of technology, engineering, construction, and behavior, in the animal world. Shew says that "A full-bodied approach to the epistemology of technology requires that assumptions embedded in our definitions…be made clear,"[14] and *Animal Constructions* is most certainly a mechanism by which to deeply delve into that process of clarification.

Contact details: damienw7@vt.edu

References

Shew, Ashley. Animal Constructions and Technological Knowledge. Lanham, MD: Lexington Books, 2017.

---

[11] Ibid., p. 118
[12] Ibid., p. 16
[13] Ibid., p. 11
[14] Ibid., p 105