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Anthropomorphism and Evidence

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The psychological literature today is awash in ungrounded concepts and methods. Although our more sophisticated colleagues are careful to operationalize their concepts (e.g., fear), others use the same concepts with reckless abandon, constructing conceptual edifices on the weakest of foundations. For such “theorists,” it sometimes seems that evidence has become an inconvenience. One can almost hear them exclaiming: “Evidence be damned. We have minds to explore!”

Given this current intellectual climate, it is not surprising that anthropomorphism is popular once again. Along with its fellow travelers—mentalism, introspection, and anecdotalism—anthropomorphism has infected the animal behavior literature in the same way that nativism has infected developmental psychology (Blumberg, 2005). I admire Clive Wynne for his stubborn passion in this struggle. But as I read his astute and perceptive essay—and it should be said that I read it as someone who did not need to be convinced—I found myself aching to change the ground rules of the debate. In particular, I believe it is time to begin demanding that some meat be placed on the anthropomorphism bones. To that end, I would like to see the proponents of anthropomorphism answer some basic questions.

Can anthropomorphism form the foundation of an empirical science? It has been argued that anthropomorphism aids the behavioral scientist to discover new facts and generate new hypotheses about animal behavior (Burghardt, 1991). This claim should be testable. Accordingly, I would like to see some effort devoted to documenting whether individuals who explicitly engage in anthropomorphism have a track

record of scientific discovery that exceeds those who do not. Specifically, I would like to know whether these individuals actually have an advantage when it comes to predicting animal behavior or generating fruitful hypotheses. What I am asking for is actual evidence.

As we know, non-scientists who rely exclusively on anthropomorphism have little to offer those of us seeking to understand animal behavior. Thus, the apparent usefulness of anthropomorphism to some scientists is likely an illusion—an illusion that rests on knowledge about animal behavior gained through rigorous training and experience. Such illusions are common for phenomena that are impervious to objective validation. Accordingly, as with reports of dreams forecasting the future, we only hear about those instances in which anthropomorphism is thought to have provided some useful guidance. In other words, we only hear about the hits. As for the misses, they are conveniently forgotten or explained away.

One might respond, of course, that even the occasional hits testify to the usefulness of anthropomorphism. One might even argue that we can assess—perhaps using a meta-analytic approach—the nature of the hits to gain some insight into those domains where our minds overlap with those of other animals. Again, this should be a testable claim. If it is, then it should be tested; however, I am not sanguine about the validity of this claim. After all, I do not believe that analysis of the occasional dream that correctly forecasts the future teaches us anything about the nature of dreams.

Can we train students in the practice of anthropomorphism? As an arm of folk psychology, one of the presumed strengths of anthropomorphism is that anybody can do it. But certainly we should have some standards. To that end, it might be wise to develop procedures to help future students meet those standards.

For example, I am unaware of any current courses being taught on the subject of anthropomorphism. Perhaps it is time for someone to give it a shot. What I would like to see

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is an actual methods course (not an historical or philosophical survey) where students would learn the finer points of introspection with the aim of projecting those introspections onto the minds of other animals. One potential benefit of such a course is that it might help us to confront directly the implicit assumption that anthropomorphism can be identified with a distinguishable method or set of methods.

From my current vantage point, I admit to having trouble imagining how such a course would unfold. Assuming that one could identify an *anthropomorphism method*, how would one convey that method to students? How would one grade the quality and validity of a student's introspections and the efficacy of her insights? How does one make the judgment that one anthropomorphic insight is correct and another is wrong? In short, how does one make the subjective objective within a domain of empirical science?

Can we identify individuals gifted in the art of anthropomorphism? We may find that anthropomorphism is not easily taught and that it is—as some have argued about Freudian psychoanalysis—more art than science. If so, then we might wish to identify those who have the gift. Toward that end, a test might be helpful. Such a test might present a candidate with challenging scenarios concerning animal behaviors that are well understood but not widely known. Hundreds of such examples exist. Let's consider one.

Imagine that you are a female rat about to give birth to a litter of needy pups. You live in a burrow, protected from predators, but your food and water lie outside your burrow in a very dangerous world. Then, your litter is born and you must spend much of your days and nights hovering over your offspring to keep them warm and to deliver to them your precious bodily fluids and nutrients. However, this cannot go on forever. Your supplies are limited. What do you do?

In anthropomorphic fashion, you might put yourself in the mind of a mother rat and imagine what you would do under her circumstances. Accordingly, you might suggest that the mother rat should forage only at times when her predators are sleeping. Or you might suggest that the mother rat should hoard food around the nest (indeed, hamsters have cheek pouches that aid in such hoarding). But think some more: How else might a rat reduce its need to leave the burrow and expose itself to predation? Think hard. Consider all possibilities. If your mind jumped to the answer—that female rats lick the genitalia and anus of their pups and ingest their urine and feces, thereby reclaiming fluid and minerals (Gubernick & Alberts, 1983)—then perhaps you are truly gifted. I am guessing, however, that this idea did not cross your mind (unless you are already familiar with this behavior).

So much has been written of the merits of anthropomorphism. But we must, again, not only consider the hits. We must also consider the misses. And who could believe that anthropomorphism—based, as it is, on our experiences as human beings—would lead us to hypothesize that rat dams

consume pup excrement to lower their risk of predation? On the contrary, doesn't our humanity actually impede our attempts to understand such alien behaviors? It would seem, then, that our real challenge as students of animal behavior is to expand our minds beyond our narrow human experiences to understand other animals.

Anthropomorphism began as a tendency to attribute human characteristics to God. Today, it lives on as a tendency to attribute human characteristics to non-human animals. The rationale for the latter tendency rests on our demonstrable evolutionary connections with other animals. But if we take this rationale seriously, should it not be the case that other animals could just as successfully understand humans by considering their own minds and lives? Accordingly, would a gorilla find it useful to hypothesize that humans are also comfortable with a mating system whereby one man controls the reproduction of several females? Would a gibbon find it useful to hypothesize that humans also like to sing songs in trees with their mates? Would a chimpanzee find it useful to hypothesize that humans also like to eat termites? I think not. Thus, although some may contend that evolution provides a firm rationale for the resurrection of anthropomorphism, I view evolution as a cover for a preferred, primitive mode of thought.

I suspect that there can be no formal method of anthropomorphism. Nor can there be a course of training in anthropomorphism that students would find useful. Rather, I suspect that all we can really do is train our students as best we can about evolution, the comparative method, development, principles of behavior, learning theory, psychobiology, neuroscience, and the philosophy of science. Some students will succeed and some will fail. But if someone wishes to assert that our most successful students will be those who practice anthropomorphism, then I want evidence.

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