

Literalism and Cruelty to Animals  
*Commentary on Dretske on Lehrer and Animal Knowledge*

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First I should confess that I come into this in complete agreement with Fred that providing an account that gives due credit to the epistemic achievements of animals looks hopeless for an internalist about knowledge. But I thought maybe the word “yes” was too short for a commentary, so I took on the challenge of finding a good answer for the internalist. Of course, whether a real internalist will take my suggestion as a favor and whether Fred will be satisfied with the explanation remain to be seen.

My way of looking at the obligations a theory of knowledge has to animals is different from some common approaches. For one thing, for me the issue does not go first through disputes about the character of animals’ mental states. E.g., do they have beliefs? A better starting point, I think, is to say that we owe an explanation of uncontroversial, commonplace facts, such as that it is perfectly natural to attribute to some of them knowledge, rather than just success in navigating the world. For example, we all recognize the naturalness of the sentence: the dog knows there’s someone at the door. The problem about animal knowledge takes its most acute form, I think, when we focus on such obvious phenomena, since they show that one doesn’t *need* to make specific, detailed assumptions about the mental states available to animals in order to think that an epistemologist has some explaining to do. Indeed, one doesn’t even need to think they have knowledge, strictly speaking. I’m a book-carrying externalist about knowledge—see *Tracking Truth* (2005)—but I don’t think animals have knowledge, strictly speaking, because my guess is that none of them have what I consider beliefs. Nor do I think they have language, or thought. (I’d be happy to discuss why I have these cruel views.) However, despite my reluctance to think animals have such states, I do think that their attunement to the way the world is looks strikingly like our knowledge in a way that can’t be brushed off as superficial, and a theory of knowledge has an obligation to explain that similarity in a robust way.

It might look like I’ve now set up internalism for an even more miserable failure than it had at Fred’s hands. My setup suggests that what makes us attribute knowledge to animals isn’t that their mental states have a particular quality similar to ours, and how can an internalist attribute anything like knowledge without appealing to the character of mental states and getting more lenient about what counts? The mental states are what matters to internalism, right? Maybe so, but there’s still more to internalism than merely claims about the *character* of mental states, and so there are also more resources than we might expect.

The form that an adequate explanation of the similarity between the “knowledge” of animals and the knowledge of humans needs to take, in my view, is identification of an **isomorphism** between something in the (relevant) animals and something in our own knowledge, and the isomorphism should **concern the ingredient X** in knowledge, the part of it that goes beyond true belief, the part that is thought to *make* it knowledge.

It is because externalist views meet this condition so readily that they succeed on the animal question. Consider process reliabilism: what *makes* our true beliefs knowledge is that they were formed by a reliable process. Isomorphically what *makes* the representations the animal successfully lives by knowledge-like is that they were formed by a reliable process. Notice that we did not have to make strong claims about what the animal’s mental states are—thoughts, beliefs, or the like—in order to have this explanatory picture. Consider tracking: what makes our true beliefs knowledge is that they track the truth. But tracking is a very general relationship that can obtain between one state of affairs and another, whether the one is a belief or another kind of representation or itself a fact about the world. So, isomorphically to us, on those occasions when we find it irresistible to say that they know things, animals’ representations, whatever they are like, or their responses, or awarenesses, are tracking the truth. Or again if knowledge is a matter of the flow of information, then animals have it, even though the media and means for that flow will be different. It is possible both to see the problem about animals, and to provide a solution, without making heavy assumptions about their mental states. All this suggests that the externalist succeeds not because externalist views have dumbed down the requirements for knowledge, although we have, but because we have taken as crucial something that has an isomorphic counterpart in animals.

This suggests that it’s possible for the internalist to do the same *without* dumbing down the requirements for full-blown knowledge, by finding an isomorphism. But what could it be? Consider that even if an internalist allowed that a belief’s being formed by a reliable process is necessary for knowledge (which is not universal, but take Michael Williams) he would not allow that this is sufficient; it would be merely one of the conjuncts in the set of requirements for knowledge, and not the conjunct that makes this theory internalist. At best, then, the relation between ourselves and animals would have to be step-wise and partially disjoint: they have reliable representation-forming processes analogous to our reliable belief-forming processes, and we have another capacity on top of this for access to, reflection on, and understanding of what justifies our beliefs where they have nothing. It’s the latter that makes for knowledge in the distinctively internalist sense, and the animals have nothing corresponding to it. That disjointness is complete if the internalist does not grant that reliability is necessary for knowledge, which is more common. It seems that an internalist view is going to imply that knowledge is a thing abruptly different in kind from anything a non-human animal has.

Whether or not one can attribute genuinely epistemic achievements to animals thus seems just to come down to whether one is an externalist or internalist. But it may be because we haven’t been looking for isomorphism for the internalist that we haven’t found it. I think that the internalist does have resources to identify robust isomorphisms of several different types.

6 minutes?

## **Because, because, because, because, because ...**

After the New Hampshire town hall last week, a local man confronted McCain, demanding to know why the immigration bill was the best thing for America. "I always do the right thing," McCain insisted, eyeing the television cameras that were filming the exchange. "And it always turns out all right. I know what the right thing is." After McCain walked away, the man shrugged. ... "Why would I ever vote for John McCain?"

"The Courage Primary," Holly Bailey, *Newsweek*, June 18, 2007

What's wrong with McCain's reply isn't just overconfidence—no one is always right—but that rather than a justification he offers an uninformative metajustification. Metajustification is not normally necessary for justification, and as this incident shows it is often not even appropriate. So the fact that animals can't give track-record arguments or claims need not worry me. A first order justification, citing a chain of reasons or evidence, is what we typically expect in everyday life any time a person is asked to justify her own belief. Of course, animals can't cite chains of reasons either, but it is in this picture of a chain of justifiers, each justifying the next, that we will look for isomorphisms between animals and ourselves.

Satisfying isomorphisms between us and other animals can be found for all three of the major types of internalist view, the "access" type, the deontological type, and the one I call "geographical" internalism. [The access type requires that the subject have potential access to the justifiers of her beliefs. The deontological type requires that the subject has done her epistemic duty in forming this belief, and this has a prima facie relation to the access requirement, via the dictum that ought implies can (though I think that that relation doesn't hold up). Finally, the geographical type says that a person's belief is justified, roughly, if it has an appropriate internal basis, i.e. a basis that is part of the subject's mental or internal states.]

Take first geographical internalism. A human subject's belief can be based on justifiers that are part of her mental states in the following way: she believes that there is a table in front of her because she's having appropriate visual and tactile perceptual representations. She has a representation (the belief) appropriately based on other representations (the perceptions). The latter are justifiers and they are part of her mental states, so we're done showing her belief about the table is justified. Now consider a frog. The frog doesn't have a belief but we can speak of whether whatever representation he has of the area in front of him, or if there isn't any then whether the action he responds with, is appropriately based on the retinal image that shows the arrangements of his optical firings. When the frog functions normally in forming his representation or acting in response, the retinal image he responds to justifies the frog's representation or action in an objective sense, in that, holding the context fixed, the representation he comes up with will be that picture of the world that the information in that retinal image makes more probably correct than any of the other simple types of "pictures" he has the capacity

to form. Or, the retinal image makes the responding action that he tends to take the one (among his repertoire) that makes him most likely to capture lunch. The retinal image is a justifier; it is the basis for his further representation or action; and he possesses it on this side of the boundary of his skin.

The frog's representation or action is thus based on internal justifiers. He just can't talk or think about the situation. The fact that geographical internalism would count his normally formed representations justified may be a reason for an internalist to move (back) to access internalism. The frog's representation (or action) doesn't rise to the level of justified, one might say, because he doesn't have access to what's going on in him. It's true that he doesn't have access to why the justification relation, the relation that in ourselves would be that between premises and conclusion, is justifying. However, I don't think access internalism can afford to be quite that tough in its requirements since that would disqualify adult human beings in a lot of normal situations. (I'd be happy to discuss this.) A better bet is to require access simply to the justifiers and their relations. In human beings this can exhibit itself by a person naming the pieces of evidence and making inferences in a way that's responsive to their rational relations to each other and to other claims, as a pathologist on a witness stand does. As we know, the pathologist can have access without ever actually giving that report, and someone listening to her and watching her point to, say, photos can have access to the justifiers and make appropriate inferences without even being able to report what they are because the list is complicated and the person's grasp is passive: he sees what it is and understands its significance, but wouldn't be able to reconstruct it in any detail. [Of course the justifiedness of the belief of this man who has only a passive understanding of the justifiers isn't as good as that of the pathologist. No doubt an ability to name the justifiers and explain their relationship is evidence that one's belief is *better* or more robustly justified. But one can have access to the justifiers without having that, even if one is a human being.]

Taking this to animals, we aren't going to find even that kind of access to the justifier in the frog. The only justifier of his representation or action that it seems there could be is the retinal image, and there's no reason to think he has any awareness type of access to that; it would serve no function, and even we don't have any access to our retinal images (ours are inverted if you want evidence for our lack of access). This points up the interesting reason for the failure of access justification: the frog has too few representations along the line from stimulus to response. Though we don't have access to the retinal image the reason we have access to justifiers is that we have a subsequent string of representations, each one the basis for the next. If one has access to such a string of even just two such representations, then one has access to a justifier of the later one, namely, the one before it in the sequence. Although we don't have access to the retinal image justifier either, we do have access to representations that are justifiers for subsequent representations. On the assumption that the frog has at most one representation of the stuff in his visual field, and if for a justifier to be accessible it has to be a representation, he has too few representations to have access to a justifier.

For us the things justified are beliefs. But as I've said in looking for the isomorphism between ourselves and other animals we should be relaxed about the precise nature of the representations involved. It seems not too much of a stretch to think we can find higher animals that do have representations, and perhaps have strings of representations, each the basis for the next. If so, then some of the justifiers of their

representations are other (non-propositional) representations *that they have access to*, as “primal sketches” ( ), “sub-symbolic structures” (Smolensky 1989), “quasi-pictures” (Kosslyn 1980), “mental models” (Johnson-Laird 1983), “2 ½-D sketches” (Marr 1982). After all, higher animals have experiences of some of the same things we experience in our environment, e.g. the thud, thud, thud of falling footsteps. I don’t think they see them *as* the thud, thud, thud, of falling footsteps, since they don’t have those concepts. But that is irrelevant to the question whether they have representations of the primitive sort I’m imagining. These primitive representations 1) are justifiers in an objective sense—they make the normal animal’s next representation more likely to be the correct one among his possible representations--and 2) the animals possess these justifier-representations because they are mental states of his. Why should we think, though, 3) the relevant animals have access to these justifiers? The reason is that there’s no point in having a picture you can’t see, so I’m assuming that where the animal has any type of representation at all, a point in the data reduction process of which for some reason his system gives him a “snapshot”, he also has some kind of awareness of it. What kind of awareness? A transparent one, there need only be a metaphorical light on inside. (Metaphorical because the representation may not be visual.). Why think 4) that the animal has access to the relation of justification between these representations? One representation follows on another in accord with the relation, if he is normal. We may do more, or at least be able to do more, than act in accord with a rule when we infer from one representation to another, but I think sometimes we do and are not.

Overall, this is the weaker generalization of access justification that I think some higher animals have. One relevant thing we see increasing from the frog to ourselves is the number of representations, because of a greater number of steps of processing stages that it is apparently useful to the organism to have a “picture” of. The more links in that chain, the more access he has to more justifiers, of representations, and finally, with animals like us, of beliefs.

Now the kind of access that a realistically described animal is going to have more and more of the longer the chain of representations in that stream of data reduction, will surely be impoverished compared to ours, since it will be only an immediate access *as* that process of production of the final representation is taking place. I can’t believe animals store these representations in order to go back and evaluate them or the views they led to. For this and other reasons it seems especially hopeless to fit any animal into the deontological view of justification; it seems that without sorting and self-evaluating capacities they could not carry out an epistemic duty, nor even have one. But once again I think there are features at a simpler level than our own that are strikingly isomorphic to ours. Here’s one. One of the intuitively gripping consequences of a deontological view of justification is that our belief that we have hands is justified even if we are brains in vats. This is because we’ve carried out our epistemic duty. We have done the best, with the sense organs we have, to come to a true belief, and nothing more can be required of us. We are not epistemically at fault. Our belief is false but the fault for that does not lie with us.

There is a counterpart to the brains in a vat scenario which is not as extreme as that situation but is usefully similar. It is a scenario that we already know we are in, where our sense organs are just not equipped to pick up on certain types of features in the world. Our eyes cannot detect ultraviolet or infrared radiation, for example. The

difference to the brains in a vat scenario, of course, is that we are capable of making instruments to set up tracking relations with infrared radiation, instruments that reliably connect up what our eyes can detect with those features we cannot. With the brains in a vat scenario that possibility of improving our situation beyond the norm is defined away. But the two scenarios have the following feature in common: we cannot be taken to be epistemically at fault in forming a belief about middle sized objects if we properly use the deliverances of our sense organs to do so. In everyday life, using an infrared camera is epistemically supererogatory (though I gather that it can also be supererotic).

There are features about the frog's situation that make it correct to use related words. It's obvious that there is an analogy between frogs and ourselves in having sense organs that pick up on features of the world only highly selectively. The frog's optic nerve simply does not fire if there are movements of light in his field of vision that do not qualify according to certain particular descriptions, [and it doesn't fire at all in response to features that do not change, except the curvature and size of an object already moving.] Unsurprisingly, the frog can be tricked into doing things like sticking his tongue out to get an object of the same size as a fly and moving in the same way. It would be wrong to say the frog isn't at fault, because it would be wrong to say he *is* at fault in any situation. But notice that it would be appropriate to say that he is not a *faulty* frog. He has done the best a normal frog can do to extract information about the world. He has done the appropriate thing with the information available to his sense organs.

A normal frog cannot possibly do better than this, and unlike us he can't improve this aspect of his epistemic capabilities concerning fly-like objects by doing science. But this brings the analogy full circle. We can describe a scenario that the frog is tricked by and cannot possibly correct himself on even given infinite time, and though in many cases we do have the higher capacities to correct and improve our situation beyond the sensory data that nature gave us, it is still possible to describe a scenario that we can be tricked by and cannot possibly correct ourselves on, namely the skeptical scenario. Of course, our species still has the distinction and perhaps comfort of being able to identify and describe our tragic situation. Obviously I'm not the first person to have pointed out this analogy, but I'm bringing it up here for a particular purpose: the deontological version of internalist knowledge does have an isomorphic, though admittedly primitive, counterpart in other animals.

In closing I can't resist being provocative: it seems that if these analogies are right, and if the internalist *still* doesn't want to attribute epistemic achievements to animals, then it can only be because he doesn't really want to.