Intuitively, it seems that both humans and non-human animals know a great many things. Just as it is part of Moorean common sense that human beings have a good deal of knowledge, it is also part of common sense that non-human animals have a good deal of knowledge. We explain the behavior of many animals by attributing beliefs and desires to them and, more than this, we often speak of animals, at least colloquially, as having knowledge. Indeed, the attribution of knowledge to non-human animals seems to be more than just a matter of colloquial usage. An examination of the scientific literature on cognitive ethology shows that there too talk of animal knowledge is a commonplace.

Philosophers, however, have not always been content to join with common usage on this issue. The question of whether non-human animals have genuine knowledge, and even the question of whether they have genuine beliefs, was a subject of great debate among the ancients. More recently, Donald Davidson, Robert Brandom and John Haugeland have all denied that non-human animals have beliefs, and Michael Williams and Keith Lehrer, accepting that they have beliefs, have nevertheless denied that they are capable of knowledge. Interestingly, Ernest Sosa seeks a middle ground here. Sosa holds that non-human animals have knowledge, but he draws a distinction between two different kinds of knowledge – animal knowledge and reflective knowledge – with the standards for the latter being considerably higher than the former. If Sosa is right to draw such a distinction, then it would be appropriate to speak of mere animal knowledge, as opposed to the more demanding kind of knowledge which humans are capable of.

The distinction between these two sorts of knowledge plays an important role in Sosa’s epistemology because Sosa’s virtue perspectivism is itself a kind of middle ground between uncompromising externalism and uncompromising internalism. While reliabilists insist that knowledge is, roughly, true belief which is reliably produced, and internalists insist that knowledge is, roughly, true belief which satisfies certain internally specified standards (such as foundationalist or coherentist demands), Sosa defends a view of knowledge as, roughly, true belief which is reliably produced and which also meets certain internally specified demands (of coherence). The move from reliabilism to Sosa’s virtue perspectivism is connected to the view that human beings are capable of something more than mere animal knowledge.
But how well motivated is Sosa’s distinction between animal knowledge and reflective knowledge? In this chapter, I argue that the distinction is not well motivated. I myself would defend a more unitary view of knowledge. I believe that human knowledge and animal knowledge are one and the same, and thus that no concession to internalism is required.

I

Sosa first draws the distinction between animal knowledge and reflective knowledge in “Knowledge and Intellectual Virtue.”

One has animal knowledge about one’s environment, one’s past, and one’s own experience if one’s judgments and beliefs about these are direct responses to their impact – e.g., through perception or memory – with little or no benefit of reflection or understanding.

One has reflective knowledge if one’s judgment or belief manifests not only such direct response to the fact known but also understanding of its place in a wider whole that includes one’s belief and knowledge of it and how these come about. (KP, 240)

A few comments about these definitions are called for. First, the distinction, as introduced here, makes the difference between animal knowledge and reflective knowledge a matter of degree, for animal knowledge involves “little or no benefit of reflection or understanding,” while reflective knowledge involves “understanding of [the belief’s] place in a wider whole that includes one’s knowledge of it and how these come about.” Second, reflective knowledge requires a substantial amount of second-order knowledge, precisely because it requires understanding of the belief’s place in one’s larger body of beliefs, as well as an understanding of the belief’s origin. Without this second-order knowledge, or without very much of it, one is reduced to mere animal knowledge. Animal knowledge involves responsiveness to the environment with little or no second-order understanding. On this way of viewing things, one would think that non-human animals have a great deal of animal knowledge but probably no reflective knowledge; human beings, however, are capable of reflective knowledge, but on at least many occasions, it seems, have nothing more than animal knowledge. Reflective knowledge sets a high standard, a standard to which we might aspire; and yet often, in the ordinary course of events, it is a standard which we do not reach or even attempt to reach.

These comments set out my own understanding of the distinction Sosa draws, and some of the things which follow from that distinction, or which follow from the distinction together with some commonsense truths about humans and non-human animals. But what Sosa says about the distinction is actually quite different. Sosa comments,

Note that no human blessed with reason has merely animal knowledge of the sort attainable by beasts. For even when perceptual belief derives as directly as it ever does from sensory stimuli, it is still relevant that one has not perceived the signs of contrary testimony. A reason-endowed being automatically monitors his background information and his sensory input for contrary evidence and automatically opts for the most coherent hypothesis even when he responds most directly to sensory stimuli. For even when response to stimuli is
most direct, if one were also to hear or see the signs of credible contrary testimony that would change one’s response. The beliefs of a rational animal hence would seem never to issue from unaided introspection, memory, or perception. For reason is always at least a silent partner on the watch for other relevant data, a silent partner whose very silence is a contributing cause of the belief outcome. \(KP, 240\)

So Sosa wishes to claim, contrary to what I suggested earlier, that human beings never have mere animal knowledge. Let us take a closer look at the relationship between Sosa’s definitions and the comments he makes about them, and also at the larger philosophical issues which are raised here.

The definition of reflective knowledge, as the term suggests, explicitly requires second-order knowledge. If one is to have reflective knowledge that a certain proposition is true, one must have an “understanding of its place in a wider whole that includes one’s belief and knowledge of it and how these come about.” With little or no second-order knowledge of these things, one’s knowledge is reduced in status to mere animal knowledge. But in the passage just quoted, Sosa allows that no actual reflection, and no actual second-order knowledge, are required for reflective knowledge. Human knowledge never descends to the level of animal knowledge because even if we do not reflect on a particular belief at all, and even if we have no understanding whatsoever of its place in our wider body of beliefs, and even if we have no thoughts about its origin, we still satisfy a certain counterfactual condition: if we were to come to have relevant counterevidence, we would be responsive to it. And it is the satisfying of this counterfactual condition which makes all of our beliefs, however unreflectively arrived at or sustained, cases of reflective knowledge. On its face, these comments seem to change the standards for reflective knowledge quite substantially.

Now I agree with Sosa that human beings are, on the whole, responsive to counterevidence even when they do not actually reflect on their beliefs; human beings thus typically satisfy the counterfactual condition. But Sosa goes further than this: he says that this makes us “rational” animals, or “reason-endowed” beings, and, again, according to Sosa, this makes us unlike mere “beasts.” But if the requirement for reflective knowledge is read in this way, and so it does not require actual reflection, or even the ability to reflect, but only a certain sort of responsiveness to counterevidence, then non-human animals – animals incapable of reflection – turn out to have reflective knowledge as well; indeed, all of their knowledge turns out to be reflective knowledge. More than this, the requirement of responsiveness to counterevidence is arguably a requirement on having beliefs at all. Certainly a creature all of whose alleged beliefs were entirely unresponsive to counterevidence would not have any genuine beliefs. The beliefs of non-human animals are not like this. They are strikingly responsive to counterevidence. So if Sosa’s definitions are taken at face value, human beings do indeed have mere animal knowledge a good deal of the time, simply because we frequently do not stop to reflect; non-human animals, on the other hand, do not ever have reflective knowledge. But if we substitute the counterfactual sensitivity requirement for reflective knowledge, human beings never have mere animal knowledge; but non-human animals do not ever have mere animal knowledge either.

There is something odd about introducing a distinction between animal knowledge and reflective knowledge as a distinction between mere responsiveness – what animals have – and responsiveness together with a broad reflective understanding of the place of
one’s belief in one’s larger body of beliefs together with an understanding of the belief’s origin – what humans are capable of – and then suggesting that the latter requires no more than a certain kind of responsiveness. If reflective knowledge is meant to be something more than just responsiveness, it must, as the definition does require if taken at face value, add something beyond responsiveness.

There are ways of reading the counterfactual requirement so that it does require something which non-human animals do not have. Sosa does say, in the quoted passage, that human beings would respond differently if they were to be presented with counter-evidence, and this suggests the counterfactual requirement which trivializes the notion of reflective knowledge. But he also says:

A reason-endowed being automatically monitors his background information and his sensory input for contrary evidence and automatically opts for the most coherent hypothesis even when he responds most directly to sensory stimuli. (KP, 240)

Talk of an agent “monitoring” his background information, as opposed to merely being sensitive to changes in background information may suggest an account of reflective knowledge which does not trivialize it. One way to understand this is to see the monitoring as something which is essentially conscious; monitoring is nothing more than a kind of reflection. But on this reading, humans frequently fail to monitor their background beliefs, even if the new beliefs they form are sensitive to the content of their background views. A different way to understand the monitoring condition is to see it as a kind of counterfactual reflection condition: reflective knowledge requires that one would reflect on one’s counterevidence if one had any.15 Thus, the way in which one is sensitive to counterevidence, on this reading, is that it would be self-consciously reflected upon if it existed. This condition is arguably not met by non-human animals, but it is only sometimes met by human beings. We frequently form beliefs in a way which not only fails to involve self-conscious reflection, but would not involve self-conscious reflection even in the presence of counterevidence, even though on some of these occasions, we would be responsive, in an unreflective way, to the counterevidence. I do not see any way of reading the distinction, however, which gets human knowledge to fall on one side of it in every case and non-human animal knowledge to fall on the other side. And yet this is what Sosa claims for the distinction.

Sosa wishes to claim that reflective knowledge is, in some important sense, better than mere animal knowledge. After introducing the definition of reflective knowledge which requires a good deal of second-order understanding, he comments:

Since a direct response supplemented by such understanding would in general have a better chance of being right, reflective knowledge is better justified than corresponding animal knowledge. (KP, 240)

But the relationship between reliability – the chance of being right – and the kind of second-order reflection mentioned in the definition of reflective knowledge is surely more complex than this would suggest. First-order mechanisms of belief production – those which operate without any reflection at all – vary in reliability. Some such mechanisms are very unreliable; others are extremely reliable. The same, of course, is true about
reflection itself. In addition, there are some mechanisms of reflection which seem to do little more than ratify whatever beliefs are produced by one’s first-order mechanisms; they play the role of cognitive yes-men. So it does not seem generally true that reflective knowledge is more reliable than unreflective knowledge. Sometimes reflection acts as a corrective on less reliable first-order processes. But it can also interfere with the smooth working of more reliable first-order mechanisms. And sometimes it just leaves things as they were. Reflection should not be recommended across the board as a route to increased reliability.

In a later piece, Sosa introduces the distinction between animal knowledge and reflective knowledge in a way which solves this problem by definitional fiat:

we can more generally distinguish animal knowledge, which requires only that one track reality, on the one hand, and reflective knowledge, on the other, which in addition requires awareness of how one knows, in a way that precludes the unreliability of one’s faculties.

Here it is simply stipulated that, if something is to count as reflective knowledge, then one must have reflected in a way which is especially reliable. But the solution by definitional fiat has problems of its own. In particular, it is not at all clear that there are ways of reflecting which “preclude the unreliability of one’s faculties,” at least if talk of “ways of reflecting” is to map on to any plausible taxonomy of psychological processes. On this account, it is not clear that anyone ever possesses, or even could possess, reflective knowledge.

Even apart from requiring that reflection be so reliable as to preclude unreliability in one’s cognitive faculties, Sosa is concerned to stress the merits of reflection.

This is not to deny that there is a kind of “animal knowledge” untouched by broad coherence. It is rather only to affirm that beyond “animal knowledge” there is a better knowledge. This reflective knowledge does require broad coherence, including one’s ability to place one’s first-level knowledge in epistemic perspective. But why aspire to any such thing? What is so desirable, epistemically, about broad coherence? Broad coherence is desirable because it yields integrated understanding, and also because it is truth conducive, even if in a demon world broad coherence fails this test and is not truth conducive. Even so, we can still regard broad coherence as intellectually valuable and admirable so long as we do not regard our world as such a world. (RK, 422)

We have already dealt with the suggestion that adding a requirement of reflection automatically raises the reliability of the belief-producing process. But what is the other benefit which Sosa attributes to reflective knowledge, the respect in which it is said to be better than animal knowledge? Here Sosa says it is “desirable because it yields integrated understanding.” This is not altogether satisfying as an explanation of the epistemic benefit of coherent belief since talk of integrated understanding seems perilously close to talk of coherence itself. To say that reflecting so as to produce more coherent belief yields integrated understanding sounds very much like saying that reflecting so as to produce more coherent belief yields more coherent belief. Why should we think that this is an epistemically good thing? And even if broadly coherent belief is a good thing epistemically, to what extent does this show that reflective knowledge is a better thing, epistemically, than mere animal knowledge?
There is no question that reflecting on one’s beliefs and the processes by which they are produced can lead not only to a body of beliefs which are broadly coherent, but also to a wider understanding of things than one would have had without reflection. And when it comes to understanding, more is better. But now consider two individuals, each of whom knows that a certain proposition \( p \) is true. Individual A believes that \( p \), \( p \) is true, and his belief that \( p \) is produced by an extremely reliable process. A has not, however, reflected on his beliefs; he has not reflected on the extent to which his belief that \( p \) coheres with his other beliefs, nor has he reflected on the manner in which his belief that \( p \) was produced. At least on this particular occasion, A is being a thoroughly unreflective, although extremely reliable, individual. B, on the other hand, is, at least on this occasion, very reflective. B believes that \( p \); \( p \) is in fact true; and the belief that \( p \) is produced in a reliable way. But B also reflects on the way in which her belief that \( p \) fits in with her other beliefs, and, noting that it does cohere with them, she draws out a number of additional consequences from her overall body of beliefs. In addition, B reflects on the manner in which she arrived at her belief, and she comes to believe that she did, in fact, arrive at her belief reliably, and this belief too coheres with her other beliefs; this further point is something which she reflectively notes.

Now B knows many things which A does not, and reflection on her situation has produced a good deal of knowledge which she has but A lacks. More than this, A could have had this knowledge if only he too had reflected on his epistemic situation. So there is no question that, at least in this situation, reflecting has produced epistemic benefits. It has, on this occasion, improved B’s epistemic situation. I certainly do not wish to deny that this kind of thing can occur.

But let us return to an evaluation of the belief that \( p \). Both A and B believe that \( p \). And if we follow Sosa’s initial introduction of the terms, we should say that A has mere animal knowledge that \( p \) while B has reflective knowledge that \( p \). How does having reflective knowledge that \( p \) put one in a better epistemic situation \textit{with respect to} \( p \)? Thus far, the epistemic benefits we have noted in B’s situation have to do with her knowing many other things \textit{in addition to} \( p \), but this, by itself, does not clearly show that her knowledge that \( p \) is in any respect superior to A’s knowledge that \( p \). And as we have seen, her reflecting, and coming to know many other things which A does not, does not in any way entail that she is more reliable with respect to \( p \) than A is. For all that has been said, A’s belief that \( p \) may have been produced by a far more reliable process than B’s, even when we include the effects that B’s reflection has on the overall reliability of the way in which she arrived at her belief that \( p \). So how is B’s knowledge that \( p \) supposed to be superior to A’s?

Consider an analogy. Suppose that I have a handful of friends whom I trust a great deal, and I frequently consult with them before reaching a conclusion about matters of importance. When an issue arises that matters to me, I think things through, and then consult with my friends. I not only ask them what I should believe about the relevant matter, I also ask them for their reasons, and what it is that they know about related issues.\(^1\) Let us leave aside, for a moment, the issue of my friends’ reliability, and whether the beliefs I come to as a result of these consultations are more or less likely to be true than beliefs arrived at independently of these friends; let us also leave aside the reasons, if any, I have for trusting them. One of the results of my consultations is that I come to have a wider range of beliefs than I would have had without consulting. On
occasions on which I consult with my friends, I thus have a larger and more deeply interconnected body of beliefs than I otherwise would. I also come to have greater confidence in the beliefs I reach after consulting my friends than the ones I arrive at without consultation.

Let us call the knowledge I come to have after consulting with my friends consultative knowledge, and knowledge which I have which is not screened by these friends non-consultative knowledge. Suppose I come to believe that consultative knowledge is superior to non-consultative knowledge. Indeed, I recognize that, while other people do form their beliefs in ways which benefit from the testimony of others, very few if any others have a group of friends on whom they rely in just the way I do to inform my epistemic decisions. And suppose that I come to believe, as a result, that the knowledge which others have, since it is merely non-consultative, is inferior to mine.

Would I be justified in drawing a distinction between these two alleged kinds of knowledge, and would I be correct in thinking that consultative knowledge is superior to non-consultative knowledge? As far as the first question goes, it seems to me that so-called consultative knowledge is not a different kind of knowledge from non-consultative knowledge. Yes, in order to possess consultative knowledge, one must have gone through a certain process which the possessor of non-consultative knowledge has not followed. But if this is a ground for drawing a distinction between different kinds of knowledge, then we will have as many different kinds of knowledge as there are processes of belief acquisition and retention. Surely this multiplies kinds of knowledge far beyond necessity. On the second question, it seems that until we know something about the reliability of my friends, the question of whether going through the additional consultation improves my epistemic situation remains unanswered. If my friends are like most, and they are reliable about some areas and unreliable about others, then the epistemic value of my checking with them will be a mixed bag. But, to return to my first point, even in the unlikely event that this checking increases my reliability across the board, it hardly seems right to suggest that consultative knowledge is a different sort of knowledge than that possessed by others. We may better address the epistemic issues involved here by asking about the advantages and disadvantages of consultation with a small circle of friends than by introducing a distinction between different sorts of knowledge.

It seems to me that the distinction between reflective knowledge and animal knowledge is no better grounded than the distinction between consultative and non-consultative knowledge. There is no ground, I believe, for regarding reflective knowledge and animal knowledge as two different sorts of knowledge, nor is there adequate ground for thinking that knowledge which is produced or sustained by means of reflection is, eo ipso, better knowledge than knowledge which does not draw upon reflection. The epistemic utility of reflection is, to my mind, an interesting and important topic, but it is most clearly addressed directly. Insisting on a distinction between animal knowledge and reflective knowledge gets in the way of, rather than aids, such an assessment.

Animal knowledge, roughly, is just reliably produced true belief. Sosa’s blend of externalist and internalist requirements on knowledge comes about only because he draws a distinction between mere animal knowledge and reflective knowledge, and then insists that reflective knowledge presents us with an appropriate epistemic goal as human beings. But if the distinction between animal knowledge and reflective knowledge is no better motivated than the distinction between consultative and non-consultative knowledge,
or the distinction between knowledge which makes use of any arbitrarily chosen belief-influencing process and knowledge which fails to draw on that process, then the motivation for a blend of externalist and internalist requirements on knowledge is undermined. Reflection can be drawn upon by human beings in producing knowledge, but when it is drawn upon, we should continue to see the requirements on knowledge as unchanged: the requirements on the use of reflection, like those on every other belief acquisition process, involve nothing more than reliably produced true belief.\footnote{Acknowledgments}

**Acknowledgments**

It is a pleasure to contribute to this Festschrift in honor of Ernie Sosa. I have been learning from Ernie’s work since my undergraduate days and I am delighted to have the occasion, finally, to acknowledge my debt. Ernie’s sober good sense, deep understanding, and unwillingness to indulge in rhetorical overstatement are a model for us all.

**Notes**

1. From now on, I will use the term ‘animal’ to refer to non-human animals.
7. See, e.g., “Dretske on Epistemic Entitlement,” *Philosophy and Phenomenological Research* 60 (2000): 607–12. Williams holds that non-human animals lack knowledge because they have not been “induct[ed] into a linguistic community, with its shared epistemic practices” (p. 609).
8. *Metamind* (Oxford: Oxford University Press, 1990). Lehrer holds (in that book) that non-human animals lack knowledge because they lack knowledge of their beliefs and the relations among them. He has since expressed a more conciliatory view, drawing a distinction between “discursive knowledge” and “the primitive knowledge young children and animals possess.” “Discursive Knowledge,” *Philosophy and Phenomenological Research* 60 (2000): 637–53. This latter distinction is quite similar to the distinction Sosa draws which is the subject of this chapter. Fred Dretske critically discusses Lehrer’s view in “Two Conceptions of Knowledge: Rational vs. Reliable Belief,” reprinted in his *Perception, Knowledge and Belief: Selected Essays* (Cambridge: Cambridge University Press, 2000), pp. 80–93.
9. More recently Sosa suggests a view which may be closer to that of Davidson, Brandom and Haugeland: “A mere thermometer reaction to one’s environment cannot constitute real knowledge, regardless of whether that reaction is causally mediated by experience. It is not enough
that one respond to seeing white and round objects in good light with a ‘belief’ or ‘proto-belief’ that one faces something white and round.” “Two False Dichotomies: Foundationalism/Coherentism and Internalism/Externalism,” in R. Schantz, ed., The Externalist Challenge: New Studies on Cognition and Intentionality (de Gruyter, forthcoming; cited as TFD). This passage at least seems to hint at a view in which non-human animals, because they lack the capacity to reflect, are thereby deprived not only of knowledge, but of genuine belief as well. I will focus in the body of this chapter on the more moderate view, however, both because it is developed at greater length in Sosa’s work and also because it is the more highly intuitive view, and thus, to my mind, fits far better with Sosa’s overall Moorean orientation. That said, a few remarks I make later in the chapter will apply to this more radical view as well.

10 Sosa himself puts it this way. See TFD.
15 This reading of the reflective awareness condition is, perhaps, suggested by a phrase in “Intellectual Virtues in Perspective”: “one’s reflective awareness, implicit though it normally remains.” In KP, 282.
19 The analogy with reflection will be even closer if we suppose that the friends I consult show a certain deference to my opinions, tending to encourage me to believe just what I would have believed even without consultation. See “Introspection and Misdirection,” cited in note 16 above.
20 There are, of course, reasonable concerns about how precisely an externalist account of knowledge should be presented, but they are beyond the scope of this chapter. For the sake of simplicity of exposition then, I assume a straightforward reliability account.
21 David Christensen and John Greco provided helpful comments on a draft of this paper.