

Brute Facts, Knowledge, and Senses of Understanding

1. Introduction

Having an explanation, whether the product of rigorous scientific investigation or in response to everyday explanatory requests, improves our overall epistemic position, and it is natural to think that explanations improve our epistemic standing by conferring understanding. My first aim in what follows is to draw out a knowledge-based sense of understanding and distinguish it from other senses of understanding, including explanatory understanding. My second goal is to show how these conceptual distinctions require reevaluating several extant discussions of explanation and understanding, including those that have been premised on the notion of a brute fact. While I shall not offer a positive account of explanatory understanding, the considerations that I advance will support the idea that there is a distinctive sense of explanatory understanding, and thus that there is a distinctive epistemic value associated with explanation.

2. Explanation, Understanding, and Knowledge

It is natural to think of the epistemic value of explanation in terms of *knowing why* something is the case rather than merely *knowing that* something is the case (see, for example, Kim 1994). This intuitive distinction between *knowing why* and *knowing that*, however, requires some comment.

The first thing to note is that even if *knowing why* can be explicated in terms of *knowing that* (say, in terms of knowledge that an explanatorily relevant causal relation obtains) we can nonetheless hold that there is a distinctive value associated with the relevant *knowledge that*. For even if having explanatory understanding amounts to having a certain kind of propositional knowledge, it may be that having this sort of propositional knowledge confers a certain kind of epistemic gain not conferred by other sorts of propositional knowledge.¹ It will be helpful to keep this point in mind in subsequent discussion, since I

¹ Moreover, it is not clear that drawing a connection between certain kinds of *knowledge that* and *knowledge why* should raise kno

will be emphasizing the significance of a knowledge-based sense of understanding and the distinction between this sense of understanding and explanatory understanding. The preceding remarks show that such a distinction will not be threatened by the idea that having explanatory understanding may require possessing certain kinds of knowledge, or at least certain kinds of true belief (see below).

That there *is* a knowledge-based sense of understanding, which we can refer to as understanding_K, can be brought out by noting that where a subject S comes to know a certain fact about the world, we are inclined to say that S better understands how things are than prior to obtaining that piece of knowledge. This is especially the case if, prior to coming to know a certain fact, S held a false belief about the subject matter in question: in replacing a false belief with a piece of knowledge, we think that there is an improvement in S's understanding of the world. However, in attributing this sort of understanding to a subject S, we are not thereby attributing explanatory understanding, or explanatory knowledge, to S. This is because in attributing understanding_K to S, we are not supposing that the knowledge that S possesses is explanatory (say, that it is knowledge of an explanatorily relevant causal relation). Further, while I shall primarily be concerned with knowledge-based understanding in what follows, it is plausible that there is also sense in which, other things being equal, a subject with *true beliefs* better understands the world than a subject who has false beliefs, regardless of whether the beliefs in question count as *knowledge*. We can

seems to me, however, that absent a compelling reason to think otherwise, we should *not* take this intuitive connection between explanatory understanding and knowledge to involve a robust concept of *knowledge*—the concept that gets debated in epistemology, that requires more than justified true belief, and so on. The discussion above in terms of the distinction between *knowledge that* and *knowledge why*, and how we can insist on a distinctive epistemic value associated with *knowledge why* even if it is explicated in terms of *knowledge that*, does not seem to presuppose a substantive conception of knowledge and can be easily recast in terms of less-demanding positive epistemic states (like true belief).²

More generally, it *is* plausible that explanatory understanding requires true belief: on a causal view of explanation, to understand why an event occurred will involve having true beliefs about the causal history of that event. In this sense, explanatory understanding will imply understanding_{TB}. But it is much less clear that it should require *knowledge*. It is not clear, for example, that explanatory understanding of an event should require *knowledge* of the causal history of that event, particularly once we note that whether a true belief counts as *knowledge* may turn on factors (say, the etiology of the belief) that do not seem to determine whether one has an *explanation* of an event (a point that will be of some importance in §5). In this case, explanatory understanding will not imply understanding_K. It is, of course, compatible with this that knowledge-based understanding can go together with explanatory understanding; we do not think that in coming to *know* that a certain event has a causal history, rather than merely truly believing that it has that causal history, we thereby lose our explanatory understanding of that event. The present claim, rather, is just the subject may have explanatory understanding of the event prior to *knowing* that it has a certain causal history, so long as the subject *truly believes* that it has that causal history. If this is right, while we may continue to speak of the epistemic value of having an explanation in terms of “explanatory knowledge”, we should insist that this may involve a positive epistemic state, such as true belief, that falls short of the demanding conditions needed for *knowledge*.

² Similarly, when Kim speaks of explanatory knowledge, it is doubtful that he takes this to involve a substantive, robust conception of knowledge.

4. Fahrbach on Explanation and Understanding

In his insightful paper “Understanding Brute Facts”, Ludwig Fahrbach agrees with Barnes that brute facts may not represent a gap in our understanding, but denies that such facts can be explained. Fahrbach thus contends that the notion of a brute fact can allow us to distinguish understanding from explanation, a sense in which understanding does not require explanation. In response, I will first suggest that if we do *not* invoke a distinction between explanatory understanding and understanding_K, Fahrbach’s position may in fact threaten the idea that there is a distinctive epistemic value associated with having an explanation. Second, I will argue that once we make a distinction between explanatory understanding and understanding_K, we should not follow Fahrbach (2005, 460) in holding that the concept of being a brute fact provides a basis for an interesting distinguishing between explanation and understanding.

Regarding the first point, suppose we follow Fahrbach in holding that a brute fact F may not represent a “scientific mystery”, even if F cannot be explained. Now, Fahrbach writes that his position supports the claim that “the epistemic gain imparted by an explanation is different from the epistemic gain imparted by the statement that a fact is brute” (ibid). Yet he assumes that the epistemic gain associated with learning that a fact is brute can be described as a kind of understanding. In this case, however, absent some reason to think otherwise we could just as well reason that since brute facts cannot be explained (as Fahrbach holds), but do not threaten our understanding of the world, we should conclude that the epistemic gain associated with explanation does *not* require explanation. To put things a bit differently, we may just as well suppose that there is a single kind of epistemic value, understanding, that while conferred by the having of an explanation can *also* be possessed without possessing an explanation, since it can be possessed with respect to facts that cannot be explained. In this case, we will not be able to maintain that there is a *distinctive* epistemic value associated with having an explanation.

Such a worry, however, is immediately dispelled once we invoke the distinction between understanding_K and explanatory understanding. In particular, we should hold that insofar as we are

this that F cannot be understood in an explanatory sense. This is precisely what we should expect if we hold, as is plausible, that a brute fact is simply one that cannot be explained.

inclined to spell out the epistemic gain associated with learning that a fact is brute in terms of understanding, this should be restricted to a claim about understanding_K. But since understanding_K is not explanatory understanding, there will be no temptation to think that the sense of understanding associated with learning that a fact is brute threatens the idea that there is a unique epistemic value associated with having an explanation, and that this value can be described as a kind of understanding.

Similar remarks apply to Fahrbach's reasons for thinking that reflection on the concept of a brute fact can provide a basis for distinguishing explan

In advancing these critical remarks both here and in §3, I do not intend to suggest that there is nothing that can be learned about explanation and understanding by appealing to the notion of a brute fact. And I believe that there are interesting questions about our endorsement of the “bruteness” of a fact, and when such an endorsement is warranted.⁸ But if my conclusions are on track, extant work on the notion of a brute fact has not succeeded in producing substantive conclusions about explanation and understanding.

5. Knowledge, Understanding_k, and Understanding

If the considerations advanced in §2 are on track, we can consistently maintain that explanatory understanding *is* a kind of knowledge *and* that there is a distinctive epistemic value associated with explanatory understanding.⁹ Nonetheless, it is worth considering how the notion of understanding_k works into the extant debate about the extent to which understanding is a kind of knowledge. I shall claim that one reason why we might think that understanding is *not* a species of knowledge can be defended, in part, precisely by invoking the distinctions sketched in §2.

According to Jonathan Kvanvig, *understandi*

the resources to explain Grimm's assessment: Albert does not understand_K why the vase fell, since Albert does not *know* that the vase fell because the table was bumped by the dog. Indeed, we can interpret Grimm as showing that we can distinguish understanding_K from understanding_{TB}. In the case that he describes, Albert has explanatory understanding and any understanding that merely requires true belief. But he does not have, and cannot have, understanding_K, since he does not possess the relevant knowledge. This provides a coherent analysis of Grimm's intuition without forcing us to draw a general conclusion about understanding or even a conclusion about explanatory understanding; we get the unsurprising conclusion that understanding_K can be defeated by the sort of considerations (in particular, those relating to luck and accident) that can defeat knowledge. Essentially the same considerations can be applied to the other cases that Grimm advances.¹⁰ We can thus insist on a close connection between explanatory understanding and having an explanation: as the quality of an explanation does not seem to turn on its etiology, so also can we maintain that explanatory understanding, while requiring true belief, does not

knowledge by allowing us to concede that there is a sense of understanding that is associated with