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"The Value of Understanding"

Philosophy Compass

If asked for a quick gloss of their subject, epistemologists will often say that epistemology is the study of knowledge.¹ But etymologically at least that claim is suspect. Looking back to the Greek, what epistemology is the study of is *episteme*, and in the view of several scholars *episteme* is best translated not as "knowledge" but rather as something in the neighborhood of "understanding."² On this view, only our notion of understanding captures the intellectual good the Greeks were after: roughly, the good of being able to "grasp" or "see" how the various parts of the world were systematically related.

Over time, however, the focus of epistemology gradually shifted, to the point where the primary concern among contemporary epistemologists was not with figuring out what it took to understand the world but rather with figuring out what it took to know individual propositions—to know that I have a hand, for example, or that Jones owns a Ford, or that the bank will be open on Saturday.³ Perhaps this gradual shift in focus occurred, as some philosophers have argued,⁴ because sceptical worries seemed to threaten even our most commonplace beliefs; or perhaps (scepticism aside) the project of analyzing knowledge proved to be so difficult that epistemologists simply got stuck.

Whatever the reason for the drift away from understanding, over the last several years a number of leading epistemologists—including Catherine Elgin, Linda Zagzebski, Jonathan Kvanvig, and Duncan Pritchard—have grown increasingly dissatisfied with the focus on

¹ See, for example, Bonjour and Sosa (2003, p.1).

² See, for example, Moravcsik (1979), Burnyeat (1981), Lear (1988), and Benson (2000).

³ Of course, the propositions have not all been so humdrum—certainly a great deal of attention has also been paid to whether we can know propositions such as that God exists, or that we have certain moral duties. But here too the focus has been almost entirely on propositional knowledge.

⁴ See, for example, Moravcsik (1979) and Zagzebski (2001).

knowledge and have accordingly attempted to "recover" the notion of understanding.⁵ In part, this interest in understanding seems to have been fueled by a more general interest in questions of epistemic value. As the post-Gettier literature grew more and more elaborate, and as it became increasingly clear that there were a wide range of positive epistemic statuses for a belief to have (being justified, rational, warranted, reliably formed, virtuously formed, etc.), epistemologists were naturally led to ask just which of these statuses were most worth having and why. But once these questions were on the table the following thought seems to have occurred to many epistemologists as well: namely, that the contemporary focus on knowledge has been unduly restrictive because it has left out one of the primary things that we care about from an epistemic point of view, which is to understand the world, or to make sense of it.

In addition to these large-scale questions, more technical issues also pushed philosophers towards an interest in understanding. According to both Kvanvig and Pritchard, for example, the contemporary focus on knowledge cannot be justified because knowledge is not distinctively valuable from an epistemic point of view—not more valuable, that is, than any of its proper parts (such as truth, or justification, or the two put together). Rather than despair about knowledge, however, both Kvanvig and Pritchard argue that because understanding *is* distinctively valuable, and because (in Pritchard's words) "we would surely rather understand than merely know" (2010, p. 74), the focus of epistemology should accordingly shift from knowledge to understanding—from the thing that just appears to be distinctively valuable to the thing that really *is* distinctively valuable.⁶

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 $^{^5}$ See especially Elgin (1996, 2004, 2007, 2009); Zagzebski (1996, 2001, 2009); Kvanvig (2003, 2009a, 2009b, 2009c); and Pritchard (2007, 2008, 2009, 2010). Two interesting earlier calls for understanding are Franklin (1981) and Cooper (1994). For overviews of the topic, see Grimm (2010a, 2010b).

⁶ Among those interested in recovering understanding, however, it is not always clear just how strong a recovery they would like there to be—whether, that is, they think that understanding should supplant knowledge as the focus of epistemology, or whether (more moderately) they think that understanding should simply take up its rightful place alongside knowledge, as an intellectual good equally worthy of theoretical attention. The more moderate view is explicitly defended in Roberts and Wood (2007). Elgin, Zagzebski, Kvanvig, and Pritchard seem to vacillate between the stronger and more moderate views.

In this article I will consider some of the main reasons why philosophers have thought that understanding is more valuable than knowledge, for the most part focusing on the contemporary debate but looking back to some classical views as well. It is worth noting at the outset, however, that even though understanding comes in a variety of forms,⁷ not all of these forms will be immediately relevant to our question concerning the relative value of understanding and knowledge. In particular, very little of the discussion below will touch on the sort of understanding we have of words or concepts.⁸ Since epistemologists have tended to focus instead on what we might think of as our understanding of the natural world (broadly understood), our discussion will mainly reflect this focus.

I. Different Questions

To start, then, suppose that just as with the well-known "*Meno* question" in epistemology—where we grant the intuitive pull of the claim that knowledge is more valuable than mere true belief, and then go on to ask for an explanation of this claim—we take a similar line with respect to our topic.⁹ That is, suppose that we grant the intuitive pull of Pritchard's claim that we would rather understand than merely know, and then go on to ask why this might be so. Thus that we ask:

[A] Why is understanding more valuable than knowledge?

Of course, and just as with the *Meno* question in epistemology, after looking around for an explanation we might be so dissatisfied that we might come to think we were mistaken in supposing that understanding *is* more valuable than knowledge. But to begin with at least the

⁷ As Elgin notes, "We understand rules and reasons, actions and passions, objectives and obstacles, techniques and tools, forms, functions, and fictions, as well as facts. We also understand pictures, words, equations, and patterns. Ordinarily these are not isolated accomplishments; they coalesce into an understanding of a subject, discipline, or field of study" (Elgin 1996, p. 123).

⁸ That said, it is worth noting that over the last few years a parallel debate in the philosophy of language has been brewing over whether linguistic understanding is a species of knowledge. See, for example, Pettit (2002) and Longworth (2008).

⁹ For more on the Meno question, see Kvanvig (2003, ch. 1) and Pritchard (2007; 2010, ch. 1).

claim about understanding seems to have enough intuitive appeal to make the question worth asking.

That said, perhaps the first thing worth noting about question [A] is that according to the most historically prominent way of thinking about understanding it makes no sense, any more than the questions "Why is jogging more valuable than exercise?" or "Why is chemistry more valuable than science?" make sense. These later questions do not make sense, of course, because jogging is just a kind of exercise, and chemistry a kind of science. But in the same way our question would not make sense so long as one thinks, along with many philosophers, that understanding is just a kind or species of knowledge.¹⁰

In thinking about how our question might be rephrased to avoid this problem, we can take a cue from the fact that when many philosophers have argued that understanding is more valuable than knowledge, they have been quite clear that the sort of knowledge they have in mind is *propositional* knowledge, or knowledge *that* something is the case.¹¹ What this suggests, in turn, is that our question might be better put as follows:

[B] Why is understanding better than *propositional* knowledge?

Here we would be thinking of knowledge as the genus category, with its species differentiated by their objects.¹² In the case of propositional knowledge, unsurprisingly, the objects would be

¹⁰ Aristotle (*Posterior Analytics* 71b9-11; *Physics* 194b17-20) is the most prominent historical advocate of the "understanding as knowledge of causes" view. For contemporary defenders see, for example, Lipton (2004a; 2004b), Grimm (2006; forthcoming), and Greco (2010; forthcoming). For other supporters of the idea that understanding is a kind of knowledge, if not necessarily a knowledge of causes, see Achinstein (1983, p. 23), Salmon (1989, pp. 134–35), and Kitcher (2002).

¹¹ See, for example, Elgin (2006, p. 200) and Zagzebski (2001, p. 244; 2009, p. 142). Even Kvanvig, who is well known for claiming that understanding is not a species of knowledge in his (2003) book, suggests in his (2009) article on the value of understanding that perhaps his main idea could be better put by saying that is it "objectual" cognitive achievements that are really valuable rather than propositional ones (where "objectual" cognitive achievements are ones that take subject matters as their objects rather than propositions). (See Kvanvig 2009, p. 102.)

¹² On this way of thinking, the concern about the overly restrictive focus on knowledge, mentioned earlier, would have to be recast so that the problem is not the focus on knowledge per se, but rather on a particular kind of knowledge—namely, *propositional* knowledge—to the neglect of kinds of knowledge that take things other than propositions as their objects. As Jaegwon Kim notes: "The traditional theory of knowledge has focused very narrowly on propositional knowledge, and its chief project has been the analysis of *knowing that p*, for a single, stand-alone proposition. Mainstream analytic epistemology has paid little attention to the concept of understanding, or how bits and pieces of propositional knowledge can come to constitute an intelligible epistemic structure" (Kim 1994, p. 53).

propositions. In the case of understanding, the objects would be something along the lines of "structures" (Linda Zagzebski), or "systems" (Julius Moravcsik), or "information chunks" (Jonathan Kvanvig), or "dependency relations" (Jaegwon Kim and myself).¹³ While these descriptions differ in various ways, if there is a common idea here it seems to be that understanding is directed at a complex of some kind—in particular, at a complex with parts or elements that depend upon, and relate to, one another, and that the mind grasps or apprehends when it understands.

Our question [B], however, is itself not entirely clear, for there are at least two different ways in which it might be read. For instance, at first glance it might seem that the best way to read [B] is along the lines of:

[C] Why is any item of understanding more valuable than any item of propositional knowledge?

Someone who read the question this way would presumably be thinking that there is something about understanding that makes it better *as a kind* than propositional knowledge—perhaps some sort of special transparency that attends understanding which does not attend propositional knowledge, or perhaps some sort of special intellectual achievement we find in understanding that we fail to find in propositional knowledge.

Although as we will see there is some pressure to think along these lines, the problem is that it is not obvious that many of the advocates of understanding cited at the outset would (or, for that matter, should) agree that just any item of understanding is more valuable than just any item of propositional knowledge. Imagine that someone has the propositional knowledge that God exists (supposing this is true) and compare this with someone who merely understands why a feather fell in this direction rather than that. Is the feather understanding really more valuable, epistemically speaking, than the knowledge about God? Since it is not obvious that

¹³ For references see Zagzebski (2001, p. 242; cf. 2009, ch. 6), Moravcsik (1979, p. 56), Kvanvig (2003, p. 192), Kim (1994, pp. 68-69), and Grimm (2006; 2010b). Other philosophers who have argued that the object of understanding is non-propositional include Riggs (2003) and Brewer (2009, pp. 298-99).

philosophers such as Elgin, Zagzebski, Kvanvig, and Pritchard would agree that it is, it would be good if we could find another, less controversial, way of phrasing our question.

With this in mind, it is helpful to note the way in which the parallel question is typically put when it comes to discussions of the *Meno* question in epistemology, concerning the comparison between knowledge and mere true belief. For notice the question there is usually not of the form: "Why is it better to have (say) knowledge of the road to Larissa *than any other item of mere true belief*?" Rather, the question is usually along the lines of: "Why is it better to have knowledge of the road to Larissa *than the corresponding item of mere true belief*?" In other words, the way question is typically put only takes for granted that knowledge is better than mere true belief with respect to one and the same proposition, and then goes on to ask why this might be so. It does not take for granted that just any item of knowledge is better than just any item of mere true belief.¹⁴

This suggests that we might also think of our question along the following lines:

[D] Why is any item of understanding more valuable than the corresponding item of propositional knowledge? $^{\rm 15}$

Although this way of putting the question seems in many ways preferable to [C] above, mainly because it seems to presuppose less, more needs to be said about how we should think about the notion of a "corresponding item" of propositional knowledge in this context. A few examples, I hope, will help to clarify the basic idea.

Thus, for a case in which S understands why p, let us suppose that the corresponding item of propositional knowledge will be a case in which S knows that p because of q. For

¹⁴ Thus, for example, Sosa asks: "How if at all does knowledge as such always improve on the corresponding merely true belief?" (Sosa 2011, p. 2). And Pritchard makes it clear in a footnote that: "Note that where I draw these contrasts between, as in this case, knowledge and mere true belief, I have in mind a mere true belief that appropriately corresponds to the true belief at issue in the case of knowledge. For example, one is comparing a situation in which an agent knows a proposition with an exactly analogous situation in which that agent merely truly believes this proposition" (Pritchard 2009, p. 5 fn 1).

¹⁵ Notice that both of our questions [C] and [D] are different than the sorts of questions that Kvanvig made well known in his 2003 book. In that book, Kvanvig's main question was: is knowledge more valuable than its proper parts? (To which he says *no.*) And his secondary question was: is understanding more valuable than its proper parts? (To which he says *yes.*) For Kvanvig's attempts to answer our questions, one needs to turn to his (forthcoming) paper on the response-dependent value of understanding, which I discuss in Section 2 below.

instance, and borrowing an example of Pritchard's, for a case in which someone understands why his house burned down, the corresponding item of propositional knowledge will be a case in which someone knows that his house burned down because of faulty wiring.¹⁶ As we will see below, moreover, the two cases can apparently come apart because it seems that someone could have the propositional knowledge that his house burned down because of faulty wiring (because, say, he learned this from the reliable fire chief on the scene), even though he fails to understand why his house burned down because he fails to see how the faulty wiring might give rise to the fire.

Similarly, let us say that for a case in which someone understands a law such as Newton's Second Law, the corresponding item of propositional knowledge will be a case in which someone knows that f=ma. And here again the two can apparently come apart because it seems that someone might very well have the propositional knowledge that f=ma (again, imagine he comes to this knowledge via reliable testimony) without understanding or grasping, as it were, how the law "works"—a point that, as Philip Kitcher observes, will be all-too familiar to science teachers who know that it is one thing for students to do well on the rote portion of a test and quite another for them to do well on the application portion, where they are supposed to apply their grasp of the law to particular cases (see Kitcher 1989, pp. 437-38).

These significant differences between [C] and [D] noted, because much of the literature on understanding has toggled loosely between attempts to answer the two different questions, our discussion below will largely do likewise. Where relevant, however, I will note that what looks like a good answer to one of these questions might very well not look like a good answer to the other, focusing on the claims that understanding is more valuable than propositional

¹⁶ Depending on what is understood, there might also be corresponding instances (plural) of propositional knowledge. For example, someone who understands (say) the United States Congress presumably understands many things about how Congress works—how the different elements of Congress depend upon, and relate to, one another. It would therefore take quite a few propositions to describe these various dependencies or relationships.

knowledge because of (1) its transparency, (2) the superior way in which it reflects or mirrors the world, and (3) its status as an intellectual achievement.

II. Understanding and Transparency

Although a number of philosophers have claimed that understanding has "distinctively internal" conditions for success in a way that propositional knowledge does not, Zagzebski has perhaps been clearest in claiming that what is distinctive about understanding is its *transparent* character.¹⁷ As she writes, "Understanding, in contrast to [propositional knowledge], not only has internally accessible criteria, but is a state that is constituted by a state of conscious transparency. It may be possible to know without knowing one knows but it is impossible to understand without understanding one understands" (2001, p. 246).

One great benefit of this transparency, according to Zagzebski, is that understanding is considerably less vulnerable to scepticism than propositional knowledge. After all, if the basic materials of understanding are all "right there," open to reflection, then it is hard to see how the sceptic can make the case that we are missing something important, when we suppose ourselves to understand. Thus, "Understanding is a state in which I am directly aware of the object of my understanding, and conscious transparency is a criterion for understanding. Those beleaguered by skeptical doubts can therefore be more confident of the trustworthiness of putative understanding states than virtually any other epistemic state" (2001, p. 247).

Relatedly, if understanding is transparent in the way Zagzebski suggests, then it would seem to be particularly desirable from something like a "first-person" or "internal" point of view. Why? Because when one understands one can tell from the inside that one has the good one seeks, in a way that one cannot when one propositionally knows. When one propositionally knows, Zagzebski seems to claim, for all that one can tell from the inside one might have the good one seeks—but then again, one might not. There is thus a kind of first-person intellectual

¹⁷ For further support for the distinctively internal character of understanding, see Kvanvig (2003, p. 198) and Pritchard (2010, p. 84).

satisfaction that comes along with understanding which one fails to find with propositional knowledge, and which helps to explain why we would rather understand than merely know.

As several critics have pointed out, however, on the face of it these claims are puzzling because many of the things that we are most interested in understanding—such as how the world works, or what makes other people tick—do not seem to be transparent to the mind at all.¹⁸ That force, mass, and acceleration are related in the way Newton described, for instance, or pressure and volume in the way that Boyle described, are presumably not the kinds of things that one can just tell or "see" by reflection alone. What's more, and as J. D. Trout (2002; 2005; 2007) has emphasized, there are countless relationships which human beings have taken themselves to have "seen" or "grasped"—e.g., the relationship between black bile and melancholy, or between one's zodiac sign and one's fortunes here on earth—that simply did not exist. So contra Zagzebski it seems as if from the inside it is often, and perhaps always, impossible to tell whether one has understood—in which case understanding would not be so different from propositional knowledge after all.¹⁹

Still, there seems to be something important and correct about Zagzebski's claim, or perhaps in the neighborhood of her claim, that is worth pursuing. To see this, suppose we refine Zagzebski's view slightly so that what we have transparent access to are not the actual relationships (or structures, or dependencies) that obtain in the world, but rather something like our mental representations or models *of* these relationships.²⁰ The idea would then be that even when we only apparently (or seemingly) grasp how the various elements of the world are related to one another, we at least grasp *something*—namely, how the various elements of the

¹⁸ For criticism, see Grimm (2006) and Pritchard (2010, sec. 4).

¹⁹ Notice that I'm construing Zagzebski's appeal to transparency to mean something like that one can tell "from the inside" that one has genuine understanding as opposed to spurious understanding, but one might construe her point instead to be something like "If you understand p, then you understand that you understand p," in which case Trout's examples of spurious understanding would not be counter-examples because the antecedent would not be satisfied. Thanks to Nathan Ballantyne for this helpful point.

²⁰ For more on this distinction between possible objects of understanding, see Greco (forthcoming).

representation or model are related to one another.²¹ Thus even the lover of the zodiac presumably grasps some model on which things here on earth depend on the position of the stars, and similarly for the believer in black bile. There thus seems to be a kind of first-person immediacy to the experience of "having made sense of the world" that one cannot be mistaken about—even if it turns out that one's way of making sense of things (put differently, the model which one grasps) is fundamentally mistaken.

Building on these ideas, what therefore seems *not* to be transparent to the mind is whether one has achieved what we might call an *objective understanding* of how the world works; in other words, what is not transparent is whether one's mental model of the world is accurate. What perhaps *is* transparent, however, is whether one has achieved what we might call a *subjective understanding* of how the world works—that is, whether one has grasped a model of how the world works that "makes sense" to the person doing the grasping. Subjective understanding, moreover, seems to have two distinct aspects. To begin with, there is the aspect of successfully grasping how the model works—that is, of being able to identify how the various elements described by the model are supposed to depend upon, and relate to, one another. This is the element of understanding we have emphasized so far. In addition, however, there also seems to be an aspect according to which the model "makes the best sense" of one's experience, in that it strikes one as the likeliest model, given one's experience. The two aspects are capable of coming apart, moreover, from both directions: both because one can grasp a model which one does not take to be true, as well as because one can take a model to be true even though one does not grasp "how it works."²²

So why then would one want subjective understanding? Given what we have said above, one straightforward reason is that it is an essential component of objective understanding—and

²¹ Note that I mean this to be a first-order grasp of the model, not a second-order reflection on how the model works.

²² Thus a historian of science can grasp phlogiston theory, say, and a reliable authority might simply tell me that a particular model is true. For a slightly different, but I think compatible, take on these two elements of understanding, see Schupbach (forthcoming). Of course, doubts can be raised here about whether the fact that a model "makes the best sense of one's experience" is really something that is accessible by reflection alone.

as we will see in the following section, objective understanding is plausibly something that we desire both for its own sake as well as for the promise it offers of being able to control the world. But suppose we think about subjective understanding in its own right (as far as this is possible), and apart from its connection to objective understanding—for example, the sort of subjective understanding that someone enjoys when he or she has made sense of things by appealing to the zodiac. What exactly is the good of that?

Along the lines of a recent proposal by Jonathan Kvanvig (2011; forthcoming), one intriguing idea is that the value of subjective understanding is "response dependent": in other words, that subjective understanding is valuable not intrinsically or "in itself," because rather in virtue of the fact that it satisfies our natural desire to make sense of the world, thus legitimately closing inquiry.²³ As Kvanvig writes:

It is the perceived achievement of objectual understanding (though not under that description, of course) that produces the "aha" and "eureka" experiences that provide closure of investigation into the subject at hand. This last point suggests that it is the same thing that is the target of enquiry, since what we are after is the kind of thing that provides and legitimates such closure of enquiry. It is the putting of the pieces of the intellectual puzzle together that does that, and thus it is plausible to contrast the idea that knowledge is the goal of enquiry with the claim that it is objectual understanding instead. (Kvanvig 2011, p. 89)

Although Kvanvig speaks here simply of "objectual understanding" and does not distinguish subjective and objective understanding in the way we have above, his use of the phrase "perceived achievement" indicates that it is the subjective element of understanding he has in mind—as we have described things, the grasping of a model that makes the best sense of one's experience. Thus Kvanvig presumably would not contest Trout's point above, that people regularly enjoy an *Aha!* or *Eureka!* experience—regularly "put the pieces of the intellectual puzzle together"—even though nothing in reality corresponds to that pieced-together puzzle. The basic idea of this passage therefore seems to be that the achievement of subjective

²³ Note that Kvanvig speaks not of our natural desire to make sense of the world but rather of our natural curiosity. Since we are often most curious about salacious things, however, or about things relevant to our own welfare, it seems better to talk of our natural desire to make sense of things if we want to get at the "purely intellectual" (forthcoming, ms. p. 6) value Kvanvig has in mind.

understanding is worthwhile from an epistemic point of view because it represents the end of inquiry, or the satisfaction of our natural desire to make sense of the world.

What should we make of this proposal?²⁴ In addition to worries about whether the response-dependent account gets things explanatorily backwards (why not say that we desire to make sense of things because it is good to make sense of things, and not that it is good because we desire it?), one central question is whether subjective understanding really marks the legitimate end of inquiry, or whether it really satisfies our natural desire to make sense of the world. And the main concern here is that is seems what we really want, from an epistemic point of view, is not just to apparently make sense of the world but to actually make sense of the world. In this respect it is worth noting that not all Aha! experiences are alike. Thus there are some Aha! experiences that we have, such as when we suddenly "see" the solution to an insight puzzle, that undoubtedly shut down inquiry.²⁵ In these cases, we are confident that we have reached a final resolution to the question at hand. The Aha! experiences that occur when we think we have figured out how some part of the world "works," however, typically do not shut down inquiry in this way. Rather, what we typically think we have identified is something along the lines of the most likely solution/model that has occurred to us—not, in the typical case, the final or only solution. Thus for the zodiac advocate to shut down inquiry, or to declare himself fully satisfied, when he seems to "see" how things stand in the world, does not seem like an ideal result, because in the typical case at least it seems like he should be keeping an open mind about other live possibilities as well.

Despite these concerns, there nevertheless seems to be *something* correct about the claim that we find genuine value in the experience of having made sense of something, relative

²⁴ I should stress that I am not confident that Kvanvig would actually endorse this proposal (thus my claim a moment ago that this view is "along the lines of a recent proposal" by Kvanvig) because at one point in his (forthcoming) paper he claims that it is one thing for a desire to be sated or satisfied, and another for a desire to reach its goal (see his forthcoming, p. 24, manuscript). If this distinction can be maintained, then it seems that even though subjective understanding might sate or satisfy our desire to make sense of things, it is nevertheless not the end or goal of our desire to make sense of things.

²⁵ A classic insight puzzle is the 9-Dot Problem, where the task is to connect all nine dots using exactly four straight lines, without removing one's pen from the paper. For more examples, see www.insightrequired.com.

to our own experience—perhaps not the kind of complete or full satisfaction that can legitimately bring inquiry to a close, but nevertheless the satisfaction that we have hit upon what looks like a legitimate contender for the truth. In this respect it is worth recalling the apparently well-earned relief we often feel, even the kind of pleasure we often feel, when we grasp a model that makes the best sense of our experience—a feeling that has been memorably captured in Alison Gopnik's description of the *Aha!* experience as a kind of "mental orgasm." Of course, in the typical case of making sense of things one does not experience anything so dramatic. But even in these cases it is plausible to think that there is a kind of legitimate satisfaction that accompanies our experience of "having made sense of things"—even when this satisfaction is quite low-level, and even when (as it happens) we has only made sense of things from the inside, or relative to our own experience.

III. Understanding and Mirroring

So far I have spoken about the "internal" or reflectively accessible goods of understanding—about our natural desire to make sense of things, and about the distinctive intellectual satisfaction that comes from having made sense of things (even if only in a subjective sense). But what kind of epistemic good, exactly, comes from objective understanding, over and above the sort of internal goods just described? No doubt the most natural answer here would be something along the lines of *truth*; that is, what objective understanding offers, over and above the good of subjectively making sense of things, is the good of *actually* making sense of things, or of getting things right. But while there is something obviously appealing about this answer, it also seems incomplete: it fails to capture the distinctive way in which someone who understands gets things right. Put another way, it fails to capture the sense in which the mind of someone who understands mirrors or reflects reality at a deeper level than the mind of someone who merely propositionally knows.

²⁶ See Gopnik (1998; 2000).

But why think that a mind with understanding *does* more profoundly mirror the world? To begin with, note that when I merely take something like Newton's Second Law on the say-so of my teacher, then even though my mind will now be successfully mirroring the world—will be getting it right—the mirroring will nevertheless be quite superficial. More exactly, even though I will now be assenting to a proposition that contains accurate information about how the world works, my mind will nonetheless not actually be taking up or "doing" that work. But what would it be like for my mind to reflect reality in that deeper way—to actually take up that work? If what we have said earlier is along the right lines, it seems that what it needs to do is grasp the way in which the various elements (or properties) described by the law depend upon one another—that is, to grasp how a change in the value of one of these elements will lead (or fail to lead) to a change in the value of the others.²⁷ When that happens, the mind will mirror the world more profoundly than before because the mind will now "take on" the nomological structure of the world, in the sense that the grasped structure will inform the mind in a way that it failed to do before, when one merely assented to the proposition.

Another instructive example of this difference between "deep" versus "superficial" mirroring can be found in Lewis Carroll's (1895) discussion between the Tortoise and Achilles. As Carroll describes things, although the Tortoise in the story keeps failing to "see" (Carroll's word) how the conclusion of case of modus ponens follows from its premises, he is nonetheless happy to "grant" (Carroll), and record in Achilles's note book, a never-ending series of conditionals according to which *if* the premises are true the conclusion *must* be true. Suppose we imagine that the notebook represents the mind of the Tortoise—a mind that assents to countless true propositions, including propositions to the effect *that* certain conclusions follow of necessity from certain premises. While the Tortoise's mind will then extensively mirror or reflect reality in one way, in another way it will fall short because it will fail to "grasp" or "see"

 $^{^{27}}$ For a more detailed proposal along these lines, see Woodward (2003) and Grimm (2010b; forthcoming). Here I am of course thinking of the law as simply one other sort of model or representation of the world, along the lines described in the previous section.

the modal relationship—in this case, the relationship of necessity—that holds between the premises and the conclusion. But it seems that only a mind that "grasps" or "sees" how these elements are modally related will deeply reflect the structure of reality, in the sense of having a mind that takes up, or is informed by, this structure.

If it is right to say that a mind that grasps these relationships, or this structure, mirrors the world more profoundly than a mind which merely assents to propositions, and if we think that a more profound mirroring is epistemically better than a less profound, then it seems that the [D] version of our guiding question deserves a positive answer. That is, it seems that every item of understanding will be more valuable than the corresponding item of propositional knowledge, because while the former will offer a deeper or more profound mirroring of reality, the latter will be more shallow.

That said, this "mirroring" account might not seem as plausible as an answer to our question [C] because, as we noted earlier in Section 1, it is not obvious that a trivial item of understanding (such as understanding why a feather fell this way rather than that) always *does* mirror the world better than some more profound item of propositional knowledge (such as that God exists, supposing this is true). Of course things get complicated here because it might be that the reason why certain items of propositional knowledge strike us as deeper or more profound is because of their potential to explain or make sense of other things we know—in which case we would not be valuing the item of knowledge "for its own sake" but rather because of its promise in offering us a deeper or more profound understanding of the world. When an item of propositional knowledge so obviously promises an explanatory payoff of this kind, it accordingly becomes harder to judge its value solely as an instance of propositional knowledge.

So far in this section I have tried to capture the "purely epistemic" value of objective understanding, but in bringing this part to a close it is important not to forget the enormous practical or instrumental value that resides in objective understanding, and that plausibly explains a great deal of our interest in it. For notice that if objective understanding is as

described above, and thus brings with it a grasp of how the various elements of the world depend upon one another, then as James Woodward notes it is no surprise why we should be interested in such understanding because of its enormous potential to help predict and control the world around us (Woodward 2003, p.7). Indeed, there seems to be little if any reason to doubt that we value objective understanding for these practical reasons, and more reason to doubt that we value it for the purely epistemic reason just described.²⁸ If, however, we plausibly value objective understanding for both purely epistemic as well as practical reasons, then the above account suggests why this might be so.

IV. Understanding and Achievement

One final approach, defended by Pritchard (2009; 2010), is that understanding is more valuable than propositional knowledge because understanding necessarily involves a cognitive achievement, while the same cannot be said of propositional knowledge. Since achievements on Pritchard's view are finally valuable—that is, worth pursuing for their own sake—he takes this value to explain why it is that we would rather understand than merely know.

Consider, for example, a case where a visitor to Chicago asks a local where the Sears Tower is located, and comes to form a true belief about the location of the Tower via the local's testimony.²⁹ According to Pritchard, even when the visitor's belief amounts to knowledge it will not rank as a cognitive achievement because the credit for the success—the reason why the visitor ended up with a true rather than false belief—seems to be almost entirely due to the abilities of the person doing the testifying rather to the visitor's own abilities.

When it comes to understanding, however, Pritchard thinks the cases crucially differ, because understanding seems by its very nature to be a cognitive achievement. Unlike knowledge, which can simply be "given" to you by a reliable testifier, understanding always seems to require some sort of significant cognitive work on one's own end—either in the sense of

²⁸ For scepticism about the existence of purely epistemic value, see Stich (1990, p. 131) and Kornblith (2003, ch. 5).

²⁹ This case is from Lackey (2007); for Pritchard's discussion see his (2010, pp. 40-43).

overcoming obstacles to one's understanding or in the sense of exercising a "significant cognitive ability." But if this is right, Pritchard argues, then any success that results will always be *primarily* attributable to the abilities of the agent coming to understand, rather than to anyone else.³⁰

On the face of it, however, the very same sorts of testimonial cases that spell trouble for the "knowledge as achievement" thesis spell trouble for Pritchard's "understanding as achievement" thesis as well.³¹ Suppose that I arrive home to find my house in cinders, and I ask the fire chief on the scene why it burned down. He then tells me (on the basis of his careful investigation) that the fire was due to faulty wiring, so that I come to share his understanding of why the house burned down. But now we can ask: Who is it that deserves the bulk of the credit for the fact that I now grasp the truth about the fire? As far as I can see, in this case it clearly seems to be the chief, rather than myself, who deserves the credit. After all, the fact that I now grasp the genuine cause of the fire seems to be almost entirely due to his patient investigation of the scene, and to have little or nothing to do with my own abilities (had he mistakenly come to believe that the fire was due to a stray cigarette, for instance, I would have "grasped" this story just as readily). So it would seem that not all cases of understanding are cases of achievement after all—at least not in Pritchard's technical sense, on which achievements are successes which are primarily due to, or creditable to, the abilities of the agent.

Another problem is that the achievement account does not obviously give us a satisfying answer to either of our questions [C] or [D] above. Thus even if many instances of propositional knowledge do not count as achievements, there are many others that patently do³²—and this would seem to include the corresponding items of propositional knowledge as well, insofar as we

³⁰ For discussion of these cases, see Pritchard (2010, ch. 4).

³¹ For more on this concern, see Grimm (2011) and Whiting (forthcoming).

³² Consider for instance the detective who after months of careful inquiry comes to know that so-and-so is the murderer, or the scientist who after years of research comes to learn that such-and-such is the sequence of a particular gene. Indeed, it seems possible that certain instances of propositional knowledge might be *more* valuable than certain instances of understanding. Take the detective's knowledge again and compare it with a case where someone understands, say, why the inkwell spilled, on seeing it struck by someone's knee (that is, a case of what we might call "easy understanding").

can contrive cases in which the corresponding items were achieved by significant cognitive effort.

As with Zagzebski, however, there nonetheless seems to be an important element of truth in Pritchard's proposal that can be better appreciated if we recall our earlier distinction between objective and subjective understanding. For notice that even though the chief seems to deserve the primary credit for one sort success in the area—namely, for the fact that the causal story that I grasped was true—nonetheless I seem to deserve the primary credit for another success in the area—namely, for the grasping itself. The basic thought here is that "grasping" itself is a success term of some kind, just as "seeing" or "perceiving" are, and indeed that a successful grasp is itself a kind of cognitive achievement. When we therefore ask who it is that deserves credit for the successful grasp of the chief's story, rather than the truth of the successful grasp, it seems to be me, rather than the chief, who deserves the credit; in other words, while I am the one who deserves the primary credit for my subjective understanding, or for the fact that I have figured out how some abstract model or representation of the world works, it is the chief who deserves the primary credit for the accuracy of that model, or for the fact that I now have an objective understanding of how the world works. So understood, as a thesis about subjective understanding, Pritchard's view that understanding necessarily involves a cognitive achievement begins to seem much more plausible.

While this way of recasting Pritchard's view is appealing in many ways, some concerns remain. First, even if we think of the internal grasp that characterizes subjective understanding as itself a kind of success, it seems possible to imagine cases where someone else deserves the credit for even this success. Think, for example, of Socrates's conversation with the slave boy in the *Meno*, where Socrates patiently guides the boy through the steps of the geometric proof. In cases of this sort, where there is extensive teaching or guidance involved, it is plausible to think that the main reason why anything was grasped at all, regardless of whether the object grasped was true or accurate, had more to do with the abilities of the teacher than the student. Another

problem is that if one allows that the sort of subjective, internal grasp described here is a cognitive success, then cognitive successes plausibly begin exploding all over the place. For example, why not think of believing in accord with the evidence as a cognitive success, or of being appropriately sensitive to defeaters? It could be of course that these *are* legitimate cognitive successes, and that Pritchard's account has helped us to appreciate this fact. The main problem for Pritchard with this response, however, is that it would then be hard to see what it so special about understanding, given that cognitive achievements seem to be a quite common part of our intellectual lives.

V. Conclusion

In closing it is worth briefly asking how some of the claims here bear on the debate between monists and pluralists about epistemic value, where monists claim that truth is the sole fundamental epistemic good, the one that explains the value of all the rest, and pluralists claim that there are epistemic goods that are not truth-connected.³³

On the one hand, I think the discussion shows that monists need to be more expansive in how they think about the idea that truth is the sole fundamental epistemic good. More exactly, if our claims about objective understanding were on target, then rather than suppose that something like "having true beliefs" or "believing true propositions" is the sole fundamental good, monists would better off in claiming that the epistemic good is something like "having a mind that accurately reflects the world," or perhaps simply of "getting things right," thus recognizing that there are other ways in which the mind can get the world right than by believing true propositions.³⁴

On the other hand, it looks like there might be at least one epistemic good that we value apart from its connection to the truth and that has not been properly appreciated in the

³³ For more on this debate, see DePaul (2001), Kvanvig (2005), and David (2005).

³⁴ See David (2005) for a defense of the idea that "having true beliefs is the sole basic epistemic good" (David 2005, p. 310). For more on the idea that "getting it right" is a better way to formulate truth monism, see Ahlstrom and Grimm (forthcoming).

literature so far—namely, the good of subjective understanding, or of making sense of things relative to our own experience.³⁵ Thus it might be more plausible to suppose that we "just do" want to make sense of things, relative to our own experience, than it is to suppose that we "just do" want beliefs that are justified, or that accord with our evidence. The reason why it is not as plausible to suppose that we just do want these later goods is because it seems that we want beliefs that are justified because beliefs that are justified are more likely to be true, and similarly for beliefs that are in accord with our evidence. When it comes to subjective understanding, it seems less crazy to think this is something we want just for its own sake, especially given the sort of inherent intellectual pleasure or satisfaction that often accompanies our experience of having—even just apparently—made sense of the world.³⁶

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³⁵ Kvanvig briefly suggests in his (2005, p. 294) that the good of "making sense of the course of experience" is not obviously truth-related, but he does not expand on the idea there.

³⁶ Thanks to Nathan Ballantyne, Allan Hazlett, Kareem Khalifa, Wayne Riggs, and Emily Sullivan for helpful comments and conversation.

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