

*Draft. Please do not refute without permission.*

## What's the Point of Understanding?

**Abstract.** What is human understanding and why should we care about it? In this paper, I propose a method of philosophical investigation called ‘function-first epistemology’ and use this method to investigate the nature and value of understanding. I argue that the concept of understanding serves the practical function of identifying good explainers, which is an important role in the general economy of our concepts. This hypothesis sheds light on a variety of issues in the epistemology of understanding, including the role of explanation in understanding, the relationship between understanding and knowledge, and the value of understanding. I argue that understanding is valuable and yet knowledge might play a more important role in our epistemic life.

What is the point of epistemic evaluation? Why do humans use words like ‘knows’, ‘understands’, and ‘rational’? These words clearly have a point, but they do not wear their function on their sleeves.

I want to shed light on the nature and value of epistemic evaluation by investigating what epistemic concepts are *for*. I call this methodological approach *function-first epistemology*.<sup>1</sup> A function-first epistemologist seeks to explain the nature and value of an epistemic concept (or practice) by reflecting on its function or purposes.

Although the name is new, the methodology is not. Edward Craig took this approach in his insightful and original book, *Knowledge and the State of Nature*. In that work, Craig argues that our practice of attributing knowledge plays a vital role in human cooperation, survival, and flourishing. More specifically, he says we speak of ‘knowing’ in order to recommend good sources of information to members of our community. This practice is necessary, or at least deeply important, because as information-dependent creatures we must often rely on the testimony of others. Thus, it is for our collective benefit that we assess the reliability of informants not just for ourselves but for others, too, since this allows us to store reliable information while it is available, without knowing when, why, or under what circumstances it might be needed. Knowledge ascriptions, according to Craig, are used to certify an informant’s belief or information as reliable, which is an important role in the general economy of our concepts.<sup>2</sup>

I find this view highly plausible, and many authors have shown that we can derive substantial epistemological payoffs by adopting it.<sup>3</sup> Craig himself uses this approach to make headway on the Gettier problem, the intractability of skepticism, and the value of knowledge.

---

<sup>1</sup> Robin McKenna suggested this label.

<sup>2</sup> I assume that words express concepts and that concepts are the meanings of words.

<sup>3</sup> See Neta (2006), Weinberg (2006), Fricker (2008), Greco (2008), Henderson (2009), McKenna (2013), Pritchard (2012), Grimm (2015), and Hannon (2016).

Instead of focusing on knowledge, however, I will investigate why humans think and speak of *understanding*. What role (or roles) does this concept play in human life? What needs does it answer to? And what would we lose if it were to disappear from our language and thoughts? I intend to answer these questions and, in doing so, make progress on a variety of issues including the nature and value of understanding, the role of explanation in understanding, and the relationship between understanding and knowledge. By answering these questions, I will also highlight the benefits of function-first epistemology and put this approach on a sounder methodological basis.

## 1. Understanding and Knowing

Philosophical interest in understanding has been expanding in recent years. Those familiar with this body of literature will know that philosophers exploring the nature of understanding have largely done so by comparison with knowledge. This isn't all that surprising because knowledge has been a focal point of modern epistemology, and the language of knowing and the language of understanding are closely related. For example, 'knowing' and 'understanding' come in the same linguistic forms: just as one can know-that, know-how, know-who, know-what, know-where, know-when, and know-why, one can also understand-that, understand-how, understand-who, and so forth. Moreover, 'knows' and 'understands' are sometimes interchangeable; for example, "I know that two plus two equals four" seems to express the same thought as "I understand that two plus two equals four". This suggests that knowing and understanding are closely related.

But despite these commonalities, ordinary parlance also points to some important differences between knowing and understanding. For one thing, we often contrast knowing and understanding. Here are two examples: I know that my toaster works, but I don't understand how it works; I know that some people enjoy the film *Battlefield Earth*, but I don't understand why.<sup>4</sup> More generally, we often contrast knowing *that* so-and-so with understanding *how* or *why* so-and-so. Further, it is commonly said that we know more than we understand. As Einstein put it, "Any fool can know, the point is to understand." This suggests that understanding requires a level of intellectual sophistication not necessarily demanded by knowledge.

This way of talking isn't peculiar to English. As Hills (2015) shows, many languages draw a similar distinction (e.g. French, German, Russian, Hebrew, Danish, and Irish). This gives some prima facie support to the idea that knowing and understanding are distinct. Presumably, we wouldn't find this distinction in many languages if knowledge and understanding were simply interchangeable or referred to the same epistemic concept.

As a consequence of comparing knowing and understanding, philosophers have tended to concentrate on answering the following questions: Is understanding factive? Is it immune to epistemic luck? Is it transparent? Does it come in degrees? Is it transmittable via testimony? Is it reducible to knowledge? This cluster of questions has largely set the research agenda for the study of understanding in epistemology. Philosophers have sought to improve our understanding of understanding by comparing it with what we know about knowledge.

Unsurprisingly, philosophers disagree about the answers to these questions. While pretty much everyone thinks understanding comes in degrees, there is disagreement about whether

---

<sup>4</sup> The movie is not even so bad it's good.

knowledge also admits of degrees.<sup>5</sup> Almost everyone agrees that certain types of epistemic luck undermine knowledge, but there is little agreement about whether understanding is immune to the same forms of luck.<sup>6</sup> It is widely accepted that knowledge is factive (i.e. if you know that  $p$ , then  $p$ ), but it is less clear whether understanding is factive.<sup>7</sup> It has also been said that understanding, unlike knowledge, is transparent; but this, too, is disputed.<sup>8</sup> Finally, it is debatable whether understanding is transmittable via testimony.<sup>9</sup>

Interesting though these questions may be, I mention them only to set them aside (though I'll return to some of them shortly). These debates are focused on getting the conditions under which one has understanding just right, leaving aside for the most part questions about the role and value of understanding in our lives more broadly. Let me explain.

Suppose, however optimistically, that these conceptual issues are one day resolved. This would certainly be a considerable technical achievement worthy of applause, but answering these questions would not tell us *why* our epistemic concepts have (or lack) these features. For example, suppose it turns out that understanding is both non-factive and compatible with epistemic luck. We might ask: why do we have a concept demarcated by those conditions? This question does not naturally arise in the current debates on understanding. Further, the usual attempts to analyze understanding tell us little, if anything, about why this concept would differ from other epistemic notions, such as knowledge. Assume, for instance, that truth is necessary for knowledge but not understanding. Why would that be? Many of the standard debates about understanding in epistemology should thus be regarded as a prolegomenon to a future, and I think more interesting, philosophical inquiry.<sup>10</sup>

Many of these debates also throw little light on epistemic value.<sup>11</sup> Suppose that knowledge, but not understanding, can be transmitted via testimony. It remains unclear whether – and, if so, why – this feature of understanding would make it more or less valuable. Is information more valuable because it is easily transmitted, or is it less valuable because it comes too easily? Likewise, we might ask whether the presence of certain forms of epistemic luck would undermine a belief's value. What, if anything, is so abhorrent about coming by true beliefs in a fortuitous fashion?

---

<sup>5</sup> Kvanvig (2003) and Hills (2015) argue that understanding, but not propositional knowledge, admits of degrees, whereas Hetherington (2001) says knowledge-that is also gradable. Brogaard (2005), and Riaz (2015) argue that knowledge-why is gradable.

<sup>6</sup> Zagzebski (2001), Kvanvig (2003), and Morris (2012) argue that understanding is immune to knowledge-undermining luck. Pritchard (2009) and Hills (2015) say understanding is incompatible with Gettier-type luck but not environmental luck. Brogaard (2005), Grimm (2006), Khalifa (2013), and Greco (2014) argue that understanding is incompatible with the same type of epistemic luck as knowledge.

<sup>7</sup> Zagzebski (2001), Elgin (2007), and Riggs (2009) argue that understanding is not factive, while Pritchard (2009), Strevens (2013), Greco (2014), and Hills (2015) claim that at least some types of understanding, such as understanding-why, are factive.

<sup>8</sup> Zagzebski (2001) says understanding is transparent in the sense that there is no gap between seeming to understand and understanding. Trout (2002) and Hills (2015) deny this.

<sup>9</sup> Pritchard (2009) and Hills (2015) argue that understanding cannot be transmitted by testimony, but Sliwa (2015) and Boyd (2015) deny this.

<sup>10</sup> I take this expression from Craig (1990: 2).

<sup>11</sup> However, Pritchard (2010) argues that understanding is valuable because it is a cognitive achievement and cognitive achievements are valuable.

While these questions are certainly not prohibited by the more traditional philosophical investigations, they do not naturally arise. In this paper, I want to foreground these broader questions about the role and value of understanding in human life.

## **2. Function-First Epistemology**

My strategy is to explore the nature and importance of understanding by investigating the role (or roles) of the concept of understanding in our socio-linguistic interactions. But, one might ask, how do we ascertain what role (or roles) this concept plays and what conceptual needs it satisfies?

The ‘function-first’ strategy has three broad steps.<sup>12</sup> First, we start with a *prima facie* plausible hypothesis about what the concept of understanding does for us (i.e. what its role is). For this hypothesis to be plausible, it must be compatible with certain facts about human life, such as facts about our physical environment, our social organization, our cognitive capacities, and the basic aims and interests we typically have, or those that we have in more specific situations. These facts about humans and their circumstances will then give rise to a certain conceptual need that is supposed to be satisfied by the purpose described in our hypothesis.

Second, we try to determine what a concept having this role would be like (i.e. what conditions would govern its application). At this second stage we can perhaps gain new insights on familiar issues, such as the relationship between luck and understanding, the factivity of understanding, and the possibility of transmitting understanding through testimony. Once we better appreciate the role of the concept of understanding in human life and thought, we can ask what features a concept that satisfies this role would have; for instance, would the presence of epistemic luck threaten the purpose of the concept of understanding? If so, we then have a reason to regard understanding as incompatible with epistemic luck. I will not pretend to resolve every issue about the nature of understanding that is raised in the course of this discussion, but at certain points I will try to indicate where the account could be developed in different ways.

Third, we must examine the extent to which this concept matches our everyday notion of understanding. In this way, our investigation is anchored by the everyday concept that we are looking to explicate. If our investigation were to reach a result quite different from the intuitive extension of the word ‘understands’, then, barring some especially plausible explanation of the mismatch, our initial hypothesis about the role that the concept plays would be the first casualty (Craig 1990: 2). Our aim is to construct a concept that not only functions in the manner suggested by our hypothesis, but also one that fits our intuitions (or explains why our intuitions diverge). Thus, while function comes ‘first’ on this approach, it is not the last word.

Function-first epistemology is importantly different from two other methodologies. The first is the traditional method of conceptual analysis, which analyzes concepts by “breaking them down” into their constituent parts (e.g. knowledge is analyzed in terms of justification, truth, and belief). Unlike conceptual analysis, the goal of my inquiry is not to enumerate the necessary and/or sufficient conditions for understanding, but rather to clarify the nature and

---

<sup>12</sup> Here I elaborate on Craig’s approach to knowledge (1990: 2). Unlike Craig, however, my account makes no detour through imaginary genealogy. This aspect of Craig’s proposal has been widely criticized (see Williams 2002; Weinberg 2006; Kusch 2011; and Gelfert 2011). By making no reference to humankind’s prehistory or to a fictional state of nature, my function-first approach avoids the weakest and most controversial aspect of Craig’s view.

origins of our present practice of evaluating people as understanders. I'll return to this topic in section 5.

Another strategy is to 'reverse engineer' epistemic evaluations. This methodology initially brackets speculation about what our epistemically evaluative practices are *for*, and instead looks at what these practices actually *are*.<sup>13</sup> In other words, we start by looking at how people actually use epistemically evaluative language (i.e. when they attribute 'knowledge', 'understanding', etc.) and then we draw conclusions about the function of epistemic evaluation from facts about usage. Later I will critically evaluate one recent attempt to draw conclusions about the function of understanding in just this way (see section 6).

Both traditional conceptual analysis and reverse engineering surely have their merits, but I do not pursue these approaches here. There are three reasons for this. First, conceptual analysis has come under heavy fire in recent years, largely due to the work of Timothy Williamson (2000) and the fallout from the Gettier problem. This has led many to wonder whether conceptual analysis really could be the right approach in epistemology, and perhaps in philosophy more generally. Thus, it will do no harm to have an alternative angle on our epistemic concepts, especially one that does not start from particular judgments about cases (or the extension of words like 'knows', 'understands', and so forth). Instead of beginning with ordinary usage, we might learn something new if we begin by reflecting on the purposes of epistemic evaluation. In any event, it will be useful to see how far we can get with this line of inquiry.

Second, it might be tempting to assume that we can glean the point of our concept of understanding from our linguistic practice featuring the word 'understands' and its cognates; but this strategy is doubtful for familiar reasons. Consider the following useful comparison:

Why do we say that things are on fire? Well, sometimes to scare people, sometimes to encourage people to escape the burning building, sometimes to celebrate (if we are resistance fighters having just succeeded in putting the enemy's property on fire). (Kappel 2010: 71)

Something similar may hold for our use of the words 'understands' and 'understanding'. The set of aims manifested when saying that someone understands something may tell us little about the point of the concept of understanding because once we have this concept, we may use it for diverse purposes.<sup>14</sup> This might prevent us from making any simple inferences from the way these words are used in ordinary language to views about the point of the concept of understanding.

Third, function-first epistemology goes beyond the project of merely *describing* our current epistemic practices and concepts; it allows us to engage in the *normative* project of evaluating how well or poorly our epistemic practices actually satisfy our needs and goals. By taking function 'first', we can assess our current practices in light of the roles that epistemic evaluation is supposed to serve, and thus aim to improve our practices. In contrast,

---

<sup>13</sup> See Dogramaci (2012) for a defense of this methodology.

<sup>14</sup> Kappel clarifies this point with an analogy. He asks us to consider the question 'Why do we have cars?' We have cars, presumably, because we have a need for efficient transportation, and cars meet this need. Of course people acquire cars for many other reasons, such as to display their wealth. However, it is doubtful that cars would exist to serve this more symbolic purpose if they did not serve as a means of transportation for so many people (Kappel 2010: 71).

methodologies that rest too heavily on ordinary usage or intuitive judgments about cases will only end up describing our actual practices, not characterizing those that would be best for us. These descriptive approaches might be useful for other goals, such as explaining aspects of human cognition. But what is unsatisfying about these approaches is they simply assume the propriety of our ordinary practices of epistemic evaluation; they do nothing to say why we should think these practices are actually worthy of our endorsement. Function-first epistemology, in contrast, allows for genuine epistemic normativity without being indifferent to how the results of our approach tally with ordinary language, our judgments about cases, and our current epistemic practices.

Function-first epistemology has many other benefits.<sup>15</sup> First, this method allows us to illuminate the importance of understanding. After all, we do evaluate agents as having or lacking understanding, and these evaluations seem to matter, so an adequate theory of understanding should explain why they matter. Second, it will shed light on the nature of understanding, since we can ask what understanding must be like in order to play its distinctive role in epistemic evaluation. Third, it can help us resolve conflicts of intuitions about cases, since we can appeal to claims about the role of understanding to adjudicate between conflicting intuitions. Fourth, we can avoid purely terminological debates about how to use the word ‘understands’. As Chalmers (2011) argues, one way to avoid descent into merely verbal disputes is to clearly indicate what theoretical roles the concept in question is supposed to play, and then to theorize about what would enable the concept to best play those roles. Fifth, this approach will allow us to explain the appeal of various other accounts that have been advocated in the literature on understanding—or so I will argue.

### **3. What’s the Point of Understanding?**

That’s enough about the job description—now on to the job itself. Why do we attribute understanding? What role does this concept play in human life? The hypothesis I want to test is: attributions of understanding are primarily used to identify individuals who can *provide us with explanations*. Put more briefly, I hypothesize that ‘understands’ identifies *explainers*.

This isn’t just wild speculation. In his *Posterior Analytics*, Aristotle discusses the close connection between explanation and understanding, and this conceptual link is widely acknowledged in the contemporary literature. Here are a few representative statements:

[U]nderstanding, as Salmon puts it, results from ‘our ability to fashion explanations’. That is almost tautological. (Kim 1996: 61)

Understanding without explanation? Impossible, or so I will argue—in the case of science, at least. (Strevens 2013: 510)

[I]f you understand why *p*, you can give an explanation of why *p* and you can do the same in similar circumstances. (Hills 2015: 3)

While the link between explanation and understanding can be filled out in different ways, several philosophers have argued that one must be able to give a correct explanation to have

---

<sup>15</sup> Here I draw on Smithies’s (2015) discussion of Craig.

understanding.<sup>16</sup> Khalifa (2011: 108), for instance, says it is impossible to understand why a phenomenon took place without believing a correct explanation for it. And de Regt (2009: 25) claims that understanding a phenomenon *just is* having an explanation of that phenomenon. Thus, the idea that explanation plays an indispensable role in understanding is not all that new, and certainly not mere speculation.

You might worry that my hypothesis gets things backwards. Shouldn't we characterize a good explainer in terms of understanding, rather than the other way around? In other words, doesn't one need to have understanding to qualify as a good explainer?

This is a natural concern, especially if you think a person can possess understanding and yet fail to be a good explainer. Despite the allure of this idea, however, I will argue that understanding is best understood in terms of the idea of a good explainer—i.e., that we get to the nature of understanding by reflecting on the criteria for being a good explainer. But I will not address this objection directly. Rather, I will show it to be doubtful by developing a more plausible alternative. By starting with the idea of an explanation-seeking inquirer, I will illustrate that we are ultimately led to a plausible account of the nature, purpose, and value of understanding. The reader will judge whether or not my proposal succeeds by its fruits.

This hypothesis – that attributions of understanding are used to certify explainers – makes the connection between explanation and understanding quite clear. But why do we care about identifying explainers? This question needs an answer if we are to clarify the importance of understanding in epistemic evaluation.

The answer is simple: we care about identifying explainers because we value *explanations*. Humans are driven to acquire and provide explanations in a variety of domains. We seek to understand, and thus explain, the origins of the universe, why some actions are morally wrong, the cause of a rash, and so on. Our quest for explanations is strikingly domain general, as Gopnik points out:

We seek and are satisfied by explanations of physical objects, animate beings, psychological agents, and even social groups. We seek and are satisfied by explanations in terms of physical laws, biological processes, reasons, or rules. (Gopnik 2000: 311)

Even children ask 'Why?' within months of uttering their first words, and this question cuts across domains for them as well (Wellman *et al.* 1997). Humans, it seems, are natural explanation-seekers. The unmet need for an explanation can leave us irritated or unsatisfied in a way that compels us to seek a resolution.

Humans seek explanations, but what *are* explanations? They have been characterized in a variety of ways, with different theories offering different constraints that would-be explanations have to obey. For example, Hempel and Oppenheim (1948) require an explanation to make essential use of a law of nature. Unificationist theories state that explanations are deductions that are tokens of the most unifying types of argument.<sup>17</sup> Causal theorists maintain that events can only be explained by their causes.<sup>18</sup> While there is surely some truth in each of these views, there is no compelling reason to think all explanations must have a common structure or function. The research on explanations spans multiple kinds of

---

<sup>16</sup> See Strevens (2013), Greco (2014), Kelp (2014), and Hills (2015).

<sup>17</sup> See Kitcher (1989), Schurz (1999), and Gijsbers (2013: 517).

<sup>18</sup> See Salmon (1984), Strevens (2008), and Woodward (2003).

judgments and distinct cognitive mechanisms. Thus, I argue we should be *permissive* about what counts as an ‘explanation’.

This pluralist view does not prevent us from offering a general characterization of explanations. Like any family resemblance term, we can pick out a cluster of overlapping similarities, even if there is no set of necessary and sufficient features that will account for all the things we call ‘explanations’. For example, explanations are typically the answers to ‘why’ or ‘how’ questions. These answers will often refer to causal relations, but not all explanations must pick out causal relations; for instance, explanations given in mathematics or morality are unlikely to be causal.<sup>19</sup> We should expect different kinds of explanations from different subject matters. Thus, an attractive strategy proposed by Kim (1994), Greco (2014), and Grimm (2014) is to put aside the narrow focus on causation and appeal to the more general notion of *dependence*. On this view, dependence is the genus category, with different kinds of dependence – causal, mereological, grounding – playing the role of species (Grimm 2014: 341). Unlike much of the literature on explanation, which has been firmly grounded in the philosophy of science, this sort of explanatory pluralism allows us to make sense of our pervasive use of non-scientific explanations in daily life.

I have argued that identifying explainers is important because seeking explanations is central to human inquiry. However, I have not yet said much about why we value explanations. What is so great about them? I think our interest in explanations has two general sources: we seek them for *practical* (or instrumental) reasons and *purely epistemic* (or non-instrumental) reasons.

There are many practical incentives for wanting to explain our environment. For example, the process of seeking explanations facilitates the discovery and confirmation of instrumentally valuable theories, which contributes to predicting future events. This, in turn, enhances our ability to control changes in our environment. As Craik puts it,

the power to explain involves the power of insight and anticipation, and this is very valuable as a kind of distance-receptor in time, which enables organisms to adapt themselves to situations which are about to arise. (1943: 7)

Similarly, Hempel refers to

man’s persistent desire to improve his strategic position in the world by means of dependable methods for predicting and, whenever possible, controlling the events that occur in it... (1962: 9)

As a means to anticipating and accommodating the future, explanations have clear survival value. Thus, explanations serve an important instrumental function in guiding our interactions with the world.

Explanations also play a crucial role in justifying or rationalizing action. Why did the Ancient Egyptians mummify their dead? Why is Tom being such a jerk lately? Questions that call for explanations, and explanations for human action in particular, are among the commonest questions we have. Why did Othello kill Desdemona? To answer this question, we

---

<sup>19</sup> Keil (2006) and Murphy and Medin (1985) argue that the vast majority of our everyday explanations invoke notions of cause and effect.

need an explanation for his action, namely, the fact that he believed Desdemona was unfaithful to him (among other facts, presumably).

An emerging body of research from the cognitive sciences demonstrates that both explanation (the process) and explanations (the products) have many other practical benefits for everyday cognition.<sup>20</sup> I do not have space to discuss this literature in detail, but Lombrozo (2011) nicely summarizes these findings. She discusses how engaging in explanation can facilitate learning, guide exploration, and influence decision-making. Explanations also play a role in motivating the construction of causal theories, resolving inconsistencies, calibrating meta-cognition, and diagnosing and repairing things. Thus, explanations clearly have critical instrumental value.

But a purely instrumental account of explanatory inquiry would be too narrow. Beyond our practical concerns, we also have a non-instrumental desire to make sense of the world rooted in what Hempel (1965) calls “sheer intellectual curiosity”. We are fascinated by why the dinosaurs became extinct even though knowing its cause would have little, if any, practical impact on our lives. Some questions attract our curiosity even though their answers have no instrumental value. This point is widely acknowledged. Goldman talks about the desire for truth “*for its own sake, not for ulterior ends*” (1998: 98). Grimm distinguishes “epistemic curiosity”, which responds to our sense of puzzlement, from “prudential curiosity”, which responds to some basic prudential concerns of ours (2008: 737). And Strevens opens his book, *Depth: An Account of Scientific Explanation*, with the following lines:

If science provides anything of intrinsic value, it is explanation. Prediction and control are useful, and success in any endeavor is gratifying, but when science is pursued as an end rather than a means, it is for the sake of understanding – the moment when a small, temporary being reaches out to touch the universe and makes contact. (2008: 3)

In other words, our second basic motivation for explanatory inquiry is our deep concern to make sense of the world we live in, to explain the unending flow of our experiences.

Our interest in explanations thus has two sources: we have many practical incentives for wanting to explain our environment, but explanations can also be rewarding in their own right, independently of whatever practical benefits they might also confer. Both of these facts explain why humans need to identify explainers. We value explanations, but as finite beings with limited cognitive resources we cannot figure out everything on our own. Instead we often must rely on the testimony of others. Thus, we have an interest in identifying people who can provide us with explanations. I hypothesize that the concept of understanding is used to pick out explainers. In this way, the concept of understanding plays an important role in the general economy of our concepts.

#### **4. Refinements**

Is this hypothesis too narrow? Aren't there many possible situations in which a person can have understanding and yet not be able to provide an explanation? For example, explanation seems to be linguistic and explicit, but someone who cannot speak or write can surely have understanding. Also, a person like Robinson Crusoe might understand many things and yet not

---

<sup>20</sup> For reviews, see Keil (2006) and Lombrozo (2006, 2011).

function as an informant or explainer for anybody. So why should we think attributions of understanding are used to identify people who can provide us with explanations? Further, inquirers will not settle for just *any* explanation: they want *good* (or true) explanations. In all of these cases, a gap seems to open up between our natural ascriptions of understanding and the concept we have arrived at by considering the practical situation of an explanation-seeker.

I will be the first to admit that we may need to supplement or modify our initial hypothesis, especially if it doesn't issue a concept that is at least very similar to our everyday notion of understanding. But if it turns out that we must revise our hypothesis, this is no reason for despair. It is a good policy to test the explanatory powers of the simple before resorting to the more complex, even if a more complex hypothesis is ultimately called for. Thus, I will now introduce some refinements to stave off objections and hopefully enhance my proposal's plausibility.

First, my hypothesis is best construed as an account of *understanding-why*. Understanding-why is at the center of a lot of recent work in epistemology, as well as the philosophy of science, and many scholars regard it as the paradigmatic form of understanding.<sup>21</sup> Some examples of understanding-why include: I understand why the Earth's average temperature is increasing; I understand why that driver ran a red light; I understand why the sky is blue. My hypothesis is meant to provide an account of understanding-why *p*, where *p* is some proposition. I am especially interested in this type of understanding because the social function of epistemic evaluation seems deeply linked to the transmission of information, and propositions are the most common vehicle of transmittable information.

Pritchard takes paradigm uses of 'understands' to be statements like "I understand why *p* is the case", but he says understanding usually *isn't* concerned with propositions. He thinks this because "it is rare to talk of understanding *that p*" (Pritchard 2010: 74, emphasis mine). However, it is plausible that to understand why *p* one's understanding must be directed towards a set of propositions, namely, those reasons as to why *p* is the case (see Hills 2015 and Boyd 2016). Thus, Pritchard's reasoning does not necessarily speak against the idea that the information content of understanding-why is propositional.

Understanding-why is often contrasted with two other kinds of understanding: practical and objectual. Practical understanding, or understanding-*how*, is more closely tied to abilities or skills than explanations. For example, a player who understands how to catch a fly ball might be unable to explain how he can do this, and explanations seem inadequate to imbue such a skill.<sup>22</sup> Objectual understanding, in contrast, is more holistic. It is usually attributed using the verb 'understands' followed directly by a noun; for example, "Elizabeth understands American History" and "Lana understands quantum physics".<sup>23</sup> Khalifa (2013) argues that objectual understanding can be reduced to understanding-why.<sup>24</sup> To the extent that it can, my claims about understanding-why might translate to the objectual case. But even if objectual understanding can be reduced to explanatory concepts, there is likely a non-reducible variety

---

<sup>21</sup> Pritchard (2010), Hempel (1965), Kitcher (1989), Grimm (2008), de Regt (2009), Khalifa (2012), Strevens (2013), and Hills (2015) all focus on understanding-why. Pritchard and Hills say it is the paradigmatic form of understanding.

<sup>22</sup> Not all cases of understanding-how are incompatible with my account. Some 'how' questions demand explanations; for example, "How do seahorses reproduce?"

<sup>23</sup> Kvanvig (2003), Elgin (2007), Wilkenfeld (2013), and Kelp (2015) investigate objectual understanding.

<sup>24</sup> Similarly, Grimm (2016) argues that understanding-why and objectual understanding differ only in degree, not in kind.

of uses of the word ‘understands’, not all of which can be assimilated to my explanatory account. Given these different types of understanding, it seems reasonable to explore the nature, purpose, and value of understanding-why. So all subsequent remarks about ‘understanding’ will refer to understanding-why.

A second refinement is needed. Our current hypothesis is that attributions of understanding are used to identify explainers. However, not just *any* explainer will do. A street psychic might tell me that my marriage is struggling because my wife has a conflicting zodiac sign, but this is not a *good* explanation of our unfortunate situation. Even if I believed in astrology and would thus get the ‘sense’ of understanding from this explanation, that does not suffice to make it a good explanation. A good explanation is genuinely explanatory. Astrology, however, does not correctly explain the cosmic order. Thus, our initial hypothesis needs a slight modification, namely, attributions of understanding are used to mark out people who can provide us with *good* explanations. In other words, ‘understands’ identifies *good explainers*.

Three clarifications are in order. First, in common parlance a ‘good’ explanation is not necessarily a true explanation; for instance, you might consider psychological egoism to be a good explanation for selfish behavior even if you think this theory is false. In this paper, however, I am using ‘good explanation’ in a factive way. A good explanation must be a correct explanation, and so understanding-why is factive.<sup>25</sup> Second, one might argue that an explanation must by definition be genuinely explanatory (i.e. a false explanation is no explanation at all). However, I think conspiracy theorists can provide explanations even if these explanations are false. They simply do not provide *good* explanations. Third, what counts as a good explanation (and perhaps even an explanation at all) might vary contextually, both between speakers and for the same speaker at different times. I will briefly return to the issue of context-sensitivity at the end of this section.

On the table we now have a modified version of our initial hypothesis: ‘understands’ certifies *good* explainers. But this hypothesis still faces objections. There are situations in which a person seems to count as an ‘understander’ even though that person is unable to provide a good explanation. Suppose Barney is unable to speak and write, so he cannot provide us with an explanation for why the floor is covered in milk. Still, Barney might understand why there is milk on the floor because he saw what happened. Thus, attributions of understanding do not seem to certify good explainers—or so the objection goes.

This objection can be straightforwardly dealt with. Barney’s lack of verbal and linguistic abilities might render him unable to provide *us* with a good explanation, but if Barney truly understands why there is milk on the floor, then he must be able to adequately explain this *to himself*. If he cannot formulate an explanation for himself, it seems obvious that he lacks understanding. Thus, there is a sense in which Barney *can* provide a good explanation, even if he cannot explain it *to us* due to certain communicative obstacles. It is pedantry to say that he understands but cannot explain. Even if he cannot express it, he does have an explanation if he understands.<sup>26</sup> I might add that a particular individual’s inability to communicate an explanation does not imply the explanation is inherently incommunicable, but merely that at present they are the wrong person for the job.

---

<sup>25</sup> It is not very plausible that one can understand why *p* if it is not the case that *p*; for instance, we cannot understand why Jesse James robbed the bank if he didn’t rob the bank. Plausible examples of non-factive understanding are typically cases of objectual understanding (see Elgin 2007).

<sup>26</sup> Gijssbers (2013: 518) makes a similar point.

Further, what counts as ‘providing an explanation’ can be filled out in a number of ways, not all of which might be linguistic. Perhaps Barney can *show me* what happened, even if he cannot tell me or write it down. However, even if Barney cannot provide me with an explanation *in any way*, this obstacle is really no more worrying than a situation in which a person cannot provide me with an explanation because she is nowhere to be found. A person who cannot be located can still, in an important sense, provide a good explanation—she simply cannot provide it to us right now. As information-dependent beings, it is in our interest to identify people as good explainers even if they are not functioning as a good explainer at a specific moment. After all, we can often rely on such people for communicating explanatory information under the right circumstances (e.g. if we can find them and if they are willing to tell us).

Potentially worrying cases involving isolated individuals, such as Robinson Crusoe, can be dealt with in a similar way. You might worry that the social function of identifying good explainers leaves mysterious why we have cases of understanding that do not involve any interpersonal relations. But there are at least two reasons to consider someone to be an explainer even if no one else is around. First, we can explain things to ourselves, as already mentioned. Second, it is important that we have a practice whereby people can declare themselves to be good explainers, since they themselves will often be the only people in a position to tell whether they are qualified or not. An understander is someone who meets a sufficiently high-quality epistemic position such that potential inquirers could in principle rely on this person’s information, even if nobody actually does ever seek such an informant. This explains why we might want to say that someone understands why *p* even though that person does not actually function as an explainer for anybody.

This account is also compatible with the highly plausible idea that understanding comes in degrees. The quality of explanations comes in degrees, so attributions of understanding will track these differences in quality. I will not provide a detailed account of explanatory quality here, but it will suffice to note that the quality of explanations varies along at least two dimensions: depth and breadth.<sup>27</sup> The comprehensiveness of the body of information contained in an explanation can increase its breadth, while a causal model that is more abstract is deeper (Strevens 2008). Further, Railton (1981) says an explanation that traces an event’s causal history back farther in time is better for it, and Hills (2015) argues that one’s understanding can be better or worse depending on how good one is at explaining things in one’s own words.

How deep or broad an explanation must be for the explainer to qualify as an understander will likely depend on context. I will not delve into this issue here, but I will point out that context can affect the epistemic standard for understanding in one of two ways. The threshold for understanding might be *invariant* even though our willingness to attribute understanding is affected by context. On this view, it might be inappropriate to attribute understanding to someone who meets the (fixed) threshold for understanding because it would generate the false implicature that her explanation is good enough for the context. Or the threshold for who truly qualifies as an understander (and not just when it is *appropriate* to attribute understanding) might itself vary with context. Settling this issue about the truth conditions of understanding attributions is not important for our purposes, however, because ascriptions of understanding will likely serve their function regardless of whether invariantism is true or not. At least, there

---

<sup>27</sup> See Elgin (2007), Greco (2014), and Strevens (2013) for more discussion of this distinction.

is no obvious reason to think one of these two views about the semantics of understanding attributions is incompatible with our hypothesis about their function.

### **5. Do Understanding and Explanation Come Apart?**

A function-first epistemologist aims to construct a concept that not only functions in the manner suggested by his or her hypothesis, but also one that fits our intuitions. To this end, we must examine the extent to which our hypothesis matches the everyday concept of understanding.

There are two ways to drive a wedge between explanation and understanding. The first is to show there are cases in which a person can explain why  $p$  even though she does not understand why  $p$ . The second, which I briefly discussed above, is to argue that an agent might have genuine understanding and yet be unable to provide an explanation. Building on our refined hypothesis from the previous section, I'll now deal with additional objections along these lines. I argue that my hypothesis does issue in conditions of application that match the intuitive extension of the word 'understands'.

The most obvious case in which a person can provide an explanation without having understanding is that of a parrot. A parrot is someone who mindlessly repeats what he or she has heard. Imagine a presidential candidate who knows little about climate change but who memorizes the following explanation of the phenomenon for his stump speech:

Our climate is undergoing dramatic changes as a result of human activity. Although greenhouse gases like carbon dioxide play an important role in keeping the earth warm, human activities like the burning of fossil fuels have produced too much carbon dioxide. We need to reduce the emission of greenhouse gases in order to limit anthropogenic climate change.<sup>28</sup>

The candidate might understand some aspects of this description, but let's suppose he does not understand what greenhouse gases are, how they relate to climate change, or what role carbon dioxide plays in heating the earth. Nevertheless, the candidate seems to successfully provide an – admittedly brief – explanation of climate change.

It is, however, compatible with my hypothesis that people can provide explanations without themselves understanding. As you'll recall, I argue that ascriptions of understanding pick out *good* explainers. The notion of a 'good explainer' can be filled out in multiple ways, but one highly plausible characteristic of such a person is the ability to reliably evaluate explanations. Following Khalifa (2013), I will characterize a good explainer as someone who can discriminate between correct and incorrect explanations, and thus is not susceptible to believing incorrect explanations. Further, a good explainer can typically provide elaboration, answer closely related questions, give explanations in his or her own words, follow an explanation of why  $p$  given by someone else, and will often be able to answer "what if things had been different" questions.<sup>29</sup> The parrot, in contrast, will lack these abilities and will therefore not qualify as an understander.

---

<sup>28</sup> I'm aware that I would make a horrible political speechwriter.

<sup>29</sup> See Woodward (2003), Grimm (2012), and Hills (2015). More abilities might be needed, such as those required for what Hills calls 'cognitive control'.

Another potential gap between explanation and understanding is the possibility of non-explanatory understanding. You might think it is possible that, for all correct explanations  $E$  of  $p$ , a person might not know that  $E$  explains  $p$  and yet still understand  $p$ . But is understanding without explanation possible?

In “Understanding without Explanation”, Lipton (2009) rejects the idea that wherever we find understanding we also find explanation. He defends the thesis that understanding without explanation is possible by appealing to several examples, one of which is the following:

Suppose that a boxing match between Able and Baker is rigged so that Baker—though in fact the far better boxer—would take a dive in the tenth round. Imagine, however, that as a matter of fact Able floors Baker with a lucky uppercut in the fifth. (Lipton 2009: 51)

Lipton uses this example to argue that potential explanations may provide understanding without approximating an actual explanation; thus, understanding needn't pass through actual explanation. But how plausible is Lipton's boxing example? Suppose we know that *if* the fight had lasted until the tenth round, Baker would have taken the dive, but we do not know that Able's fifth round knockout actually caused his victory. Do we understand why Baker lost the match?

According to Lipton, knowing that the match was rigged helps us understand why Able won, even though the explanation of the win depends entirely on the lucky punch. It is because we possess knowledge of salient counterfactual scenarios that we understand, even though we do not know the actual explanation. Khalifa agrees with Lipton that this is a case of understanding, although he says we do not understand why Able won as well as someone who knows about the actual course of events (2012: 12).

I find these judgments surprising. It seems quite intuitive to me that we would only *think* we understand why Able won, when in fact we would not actually understand why. If we do not know that Able's fifth round knockout was actually due to a lucky uppercut, then we have an incorrect explanation for the match's result and, consequently, we fail to understand why Baker lost the match.<sup>30</sup> Thus, Lipton's example does not illustrate the possibility of understanding without explanation. Rather, it seems consistent with our hypothesis that understanding requires a good explanation.

Lipton also considers Galileo's thought experiment that demonstrates that gravitational acceleration is independent of mass.

Suppose that heavier things accelerate faster than light things, and consider a heavy and a light mass connected by a rope. Considered as two masses, the light one should slow down the heavier one, so the system should accelerate slower than the heavier mass alone. But considered as one mass, the system is of course heavier than the heavy mass alone and so should accelerate faster than the heavy mass alone. But the system cannot both accelerate slower and faster, so acceleration must be independent of mass. (Lipton 2009: 47)

Lipton says Galileo's argument is *not* an explanation—and I agree. But we disagree about whether this is a case of understanding-why. According to Lipton, we understand why acceleration is independent of mass once we appreciate the contradiction revealed by Galileo's

---

<sup>30</sup> Strevens (2013: 514) agrees.

thought experiment. However, I think a more plausible explanation is this: appreciating Galileo's thought experiment leads us to understand *that* acceleration must be independent of mass, but it does not lead us to understand *why* it is. In order to understand why acceleration is independent of mass, we must possess an explanation of that fact, which turns on the equivalence of gravitational and inertial mass, accounted for by general relativity. So this case does not support the possibility of understanding-why without explanation.

Lipton also says we can acquire understanding through *demonstrations* rather than explanations. Drawing on his own experience, Lipton writes:

I never properly understood the why of retrograde motion until I saw it demonstrated visually in a planetarium. A physical model such as an orrery may do similar cognitive work. These visual devices may convey causal information without recourse to an explanation. And people who gain understanding in this way may not be left in a position to formulate an explanation that captures the same information. Yet their understanding is real. (2009: 45)

This passage expresses two important ideas: first, that understanding can be attained in a non-explanatory way (i.e., via demonstration); second, that understanding can be non-linguistic.

The first point is perfectly compatible with my hypothesis. I claim that ascriptions of understanding are used to pick out individuals who can provide a good explanation, but I do not claim that demonstrations cannot put us in such a position. In fact, it seems highly plausible that a visual demonstration of the sort Lipton describes might put an individual in a position to provide a good explanation. Thus, I grant that understanding might be attained through demonstration (or some other non-explanatory route) rather than explanation.

Lipton's second point is that understanding can be non-linguistic. As discussed in the previous section, however, this objection is not persuasive. An agent (like Barney, who saw the milk spill) might lack the ability to formulate an explanation for others and yet be able to explain the event to himself. An individual's inability to communicate an explanation does not necessarily imply that the person is not a good explainer. Further, any agent who is unable to formulate a self-explanation *does* seem to lack understanding. In Lipton's case, the reason the outer planets occasionally seem to reverse their motions is that the earth's orbit around the sun is tighter than the outer planets, so it will occasionally overtake them, thereby causing the appearance of retrograde motion. Anyone who cannot formulate this idea, even roughly, has not understood why the phenomenon occurs. Thus, it seems impossible for someone to understand why *p* unless she can formulate an explanation as to why *p*.

Lipton provides other putative examples of understanding without explanation, though I do not have space to discuss them all here.<sup>31</sup> However, many of them can be set aside as examples of practical understanding or objectual understanding, not understanding-why. As mentioned earlier, an explanationist conception of understanding is probably too narrow to account for the full range of cases in which we attribute understanding. But this cuts no ice with my view because I am analyzing understanding-why.

In lieu of an exhaustive critical discussion of each of Lipton's examples (and many other possible examples), let's suppose for the sake of argument there *are* some genuine cases of understanding-why without explanation. Would this put my view in peril?

---

<sup>31</sup> See Khalifa (2012) and Strevens (2013) for additional criticism of Lipton's examples.

Not necessarily. Even if there were instances of understanding-why without explanation, these situations are presumably quite rare, which is consistent with my claim that the *primary* function of attributing understanding-why is to identify good explainers. As a function-first epistemologist, the goal of my inquiry is not to enumerate the necessary and sufficient conditions for understanding, but rather to investigate the nature and origins of our present practice. Thus, I am only interested in identifying what might be called the ‘core’ of the concept of understanding-why, which allows me to specify conditions that hold only for the most part, but not always.

An advantage of this approach is that we need not throw away important characteristics of understanding. A theory proposing necessary and/or sufficient conditions will be rejected in the face of any counterexample, since counterexamples have enormous power against this approach. If, for example, it can be argued that a case of knowledge without belief is possible, then belief will make no appearance on the final balance sheet in our theory of knowledge.<sup>32</sup> Similarly, if a case of understanding without explanation were possible, then explanation would not be a necessary condition on understanding. Must we therefore abandon our theory in the face of such ‘counterexamples’? I suggest not. Instead, we should be open to the possibility that explaining the nature and value of understanding will come from certain contingent characteristics. Even if there are some cases of understanding without explanation, the possibility remains that explanation is something we value about understanding. In contrast to traditional conceptual analysis, my approach permits us to include characteristics that, while not necessary, are important to understanding and important to us. Understanding’s value might lie in properties that are not present in all cases.

## **6. Does ‘Understand’ Identify Experts?**

I am not the first person to ask why humans attribute understanding. In a recently published study, Wilkenfeld, Plunkett, and Lombrozo (2016) empirically investigate the folk concept of understanding to determine its function. Their study consists of a series of experiments that contrast people’s use of the locution ‘X understands why’ with their use of the locution ‘X knows why’. Wilkenfeld and his colleagues (henceforth WPL) look at how people actually use the word ‘understands’, and then they draw conclusions about the function of understanding attributions from this data. In other words, they attempt to ‘reverse engineer’ the concept of understanding, so their methodology will face the objections mentioned in section 2.

But instead of rehashing the limitations of this approach, I want to discuss the empirical findings reported by WPL and evaluate their hypothesis about the point of understanding attributions. I will argue that they mischaracterize what attributions of understanding are for; moreover, their data is compatible with my hypothesis that ‘understands why’ identifies good explainers.

WPL tested for potential differences in attributions of knowledge and understanding as a function of explanatory depth. What they found is that people attribute knowledge more willingly than they attribute understanding in cases where someone has a true explanatory belief that is nevertheless fairly shallow. Put differently, participants were more inclined to attribute knowledge than understanding when the subject of the attribution had beliefs about an

---

<sup>32</sup> See Craig (1990: 14) for a similar point.

explanatory connection, but minimal explanatory depth. This is consistent with Pritchard's (2009: 38) claim that attributions of understanding have higher demands than knowledge when it comes to explanatory depth.

What explains why knowledge and understanding diverge in this way? According to WPL, it is because the epistemic aim of understanding (but not knowledge) is to pick out experts to whom we should defer. They write,

understanding attributions are used to identify experts to whom we should defer, and as a result we are differentially hesitant to ascribe understanding-why (relative to knowledge-why) when the beliefs constituting that understanding are not supported by access to deep explanatory information. (2016: 383)

To test this hypothesis, WPL designed an experiment to examine whether people's ratings of how much someone understood why correlated with their ratings of how valuable that person would be as a source of information about closely related processes. All participants read the same eight vignettes. Each vignette described a person who sits down at a computer, accidentally presses some keys on the keyboard, and causes an "Ω" character to appear on the computer screen. These vignettes varied in the explanatory depth of the character's grasp of the cause of the Ω character appearing on the screen. WPL found that when participants were asked whether the protagonist would be a good resource for a person to consult if he or she needed help resolving a technical problem with the computer, positive responses were significantly more correlated with understanding attributions than knowledge attributions. Thus, understanding attributions correlate with a participant's willingness to defer to the understander regarding issues from the same domain. WPL take this connection to point towards the functional role of the concept of understanding.

We now have two hypotheses on the table. On my view, understanding attributions certify people who can provide us with good explanations. According to WPL, ascriptions of understanding are used to demarcate skillful experts to whom we should defer. Who is right?

Before arguing that my hypothesis is more plausible, let me quickly highlight three commonalities between these two proposals. First, the data collected by WPL reveal a close conceptual link between understanding and explanation, which favors both hypotheses equally. Second, both hypotheses correctly predict that people will withhold attributions of understanding when the subject of the attribution has minimal explanatory information. (This is because both good explainers and experts must attain a certain degree of explanatory depth.) Third, people's tendency to ascribe understanding to a subject S will, on both accounts, significantly correlate with a willingness to defer to S on issues in the same domain.

Given these commonalities, you might wonder whether these two hypotheses are just opposite sides of the same coin. I think they are not. While understanding seems deeply connected to identifying good explainers, there is a large conceptual gap between understanding and expertise. Let me explain.

While understanding is almost certainly necessary for expertise in a domain (i.e., there are no experts who have no understanding), it is not sufficient. Indeed, there are many possible cases in which a person has understanding but does not qualify as an expert in the relevant domain. For example, when I see someone accidentally hit a table with their knee and a cup falls from the table, I understand why it falls; but it seems false to say that my judgment

reflects expertise. There are many similar cases of ‘easy understanding’ that create a large gap between expertise and understanding. Consider the following case by Grimm:

when I start chopping onions and my eyes begin to water, I think I understand why my eyes are beginning to water, namely, because I am chopping the onions. I don’t think it is because of the time of day, or the color of the shirt I am wearing, or anything like that; it’s because of the onions. (2014: 337)

Admittedly, this understanding is not as deep or extensive as the understanding had by someone who is able to say what it is about the onions that causes this reaction (i.e. the sulfur compounds); thus, it would be odd to call Grimm an ‘expert’ on this matter. But understanding comes in degrees, so a fairly shallow understanding is still genuine understanding.

By tying understanding to expertise, WPL make understanding a rare achievement. Few people are experts across domains, but many have some degree of understanding across domains. So if ‘understands’ picks out expertise, than understanding is a much rarer achievement than we thought. While this sort of skepticism about understanding is not necessarily false, it contradicts WPL’s goal of studying the *folk* concept of understanding. Thus, it is doubtful that ascriptions of understanding play “a fundamental role in identifying experts who should be heeded with respect to the general field in question” (Wilkenfeld et al. 2016: 373).

There is, however, a way to interpret WPL’s view about the purpose of understanding attributions that makes it more plausible. Perhaps WPL are not concerned with the *everyday* notion of expertise. Rather, they might be using ‘expert’ to refer to people whose beliefs attain a certain level of explanatory depth and who can be relied on to solve difficult problems within the relevant domain. This is a broader category of people than is captured by the folk sense of ‘expert’. On this interpretation, understanding would not be an all-too-rare achievement. Many people can attain a certain degree of explanatory depth in a domain without qualifying as experts in that domain (e.g. I know a fair bit about Hume’s *Enquiry* but I am no expert).

This interpretation of WPL’s hypothesis brings it much closer to my own view, but a crucial gap must still be filled. WPL admit they “have not offered an analysis of how attributions of knowledge function in our epistemic lives” (2016: 391). Instead, their aim is to characterize understanding. The problem, however, is that knowledge ascriptions are commonly held to identify people to whom we should defer (Craig 1990; Keil 2006). But, as WPL observe, attributions of knowledge and attributions of understanding often diverge, which suggests these concepts play different roles in epistemic evaluation. So if the role of understanding is to identify people to whom we may reasonably defer, what role is left for knowledge?

What we require is an account of epistemic evaluation that is sensitive to at least three facts: first, attributions of knowledge and attributions of understanding often diverge, and this seems to be a function of explanatory depth; second, these differences in attribution indicate that understanding is often a stronger epistemic state than knowledge; third, understanding and knowledge are both intimately related to deference. In the final section of this paper, I will argue that understanding and knowledge play different social roles. Further, I will discuss the importance of these roles and argue that knowledge is more central than understanding to human cooperation, survival, and flourishing.

## 7. The Function and Value of Knowing vs. Understanding

It is useful for us to have a range of predicates that serve to express a variety of evaluations of the epistemic position of other people. As I have been arguing, one useful predicate has to do with identifying good explainers because humans are natural explanation seekers and yet cognitively dependent on others. Another useful predicate, such as 'rational', might be used to influence our audience to follow the endorsed belief-forming rules.<sup>33</sup> A third predicate, namely 'knows', presumably serves some other function (or functions). But what function(s) does it serve and how does it (they) differ from understanding?

Several theorists have argued that one of the primary functions of knowledge ascriptions is to signal the point of legitimate inquiry closure.<sup>34</sup> As inquirers, humans seek reliable information for a diverse range of theoretical and practical purposes. But the process of inquiry is potentially open-ended because it is always possible to seek further evidence. Spending all our time and resources to continue inquiring would be impractical, however, because further inquiry is not always worth the reduced risk of being wrong. We therefore need a point at which people may reasonably terminate inquiry. How do we signal when inquiry has gone on long enough? Many have argued that knowledge attributions certify information as being such that it may, or even should, be taken as settled for the purposes of one's deliberations.

Pritchard denies that inquiry reasonably ends at knowledge. He argues that inquiry reasonably terminates at understanding:

Now ask yourself whether inquiry that resulted in knowledge but not in the corresponding understanding would be deemed a successful inquiry (and thus a 'closed' inquiry, at least as regards the original question under investigation). I suggest not. (Pritchard 2010: 85)

To support his thesis, Pritchard considers a case in which someone finds his house has burned down and is led to wonder what caused the fire. Pritchard argues that this inquiry will not be properly closed until that person comes to understand why his house burned down.

While I agree with Pritchard about this example, his case does not illustrate that understanding is the aim of inquiry. That view is too strong to be plausible. Why think all inquiries must have the same aim? While some inquiries might demand understanding in order to be legitimately closed, it is unlikely that all do. Upon visiting the computer repair shop, I am happy to know that my laptop works without needing to understand why. This inquiry would successfully end at knowledge because I am not always interested in underlying explanations or the causes of certain events. The reason why inquiry aims at understanding in Pritchard's example is grounded in the fact that the agent seeks an explanation for the event. But, as Kelp (2014) also argues, our curiosity is very often directed at non-explanatory information. Suppose I am looking for my car keys. In this situation, I might want to know whether my wife has them or not. But it is of no interest to me that my wife has them because she needed to get something out of the car and she forgot to put the keys back on the table. My inquiry would reach its goal and properly end even if I did not attain an understanding of why the relevant

---

<sup>33</sup> Dogramaci (2012) defends this idea.

<sup>34</sup> See Kvanvig (2009), Kappel (2010), Millar (2011), Rysiew (2012), and Hannon (2015).

proposition is true. Thus, while understanding sometimes legitimately closes inquiry, mere knowledge will often suffice.<sup>35</sup>

In fact, knowledge is probably *more centrally* linked to inquiry closure than understanding. Acquiring a deep understanding of the world might be worthwhile from a purely epistemic point of view, but such rarified concerns have little to do with the vast majority of our everyday inquiries. When I need to find my way to Yankee Stadium, my judgment about whether a random passerby knows its location has little to do with a concern for understanding. I do not require my informant's belief to attain a high level of explanatory depth; all I need is to acquire a true belief from a reliable source of information. What I am looking for is a *reliable informant* on the truth of whether *p*, not a *good explainer* as to why *p*. Ascriptions of knowledge and ascriptions of understanding often come apart because 'knows' typically picks out reliable informants, whereas 'understands' identifies good explainers. Since our ordinary inquiries are often satisfied by identifying reliable informants as to whether *p* (without necessarily acquiring a good explanation as to why *p*), inquiry will often end at knowledge. It might be true that *if* we could set aside various practical considerations, then we would aim for understanding. But given our need for actionable information, our epistemic dependence on others, and the fact that we can rarely afford to pay the higher 'informational costs' needed to acquire understanding, it is far more likely that everyday inquiry will terminate at knowledge. In this respect, ascriptions of knowledge play an important role in everyday life that ascriptions of understanding do not.

Linguistic data support this argument. 'Know' is one of the 10 most commonly used verbs in English (Davies and Gardner 2010), the first cognitive verb that children learn (Shatz et al. 1983), and the most prominently used term in epistemic assessment (Gerken 2015). It has also been argued that 'know' is unlike almost every other word because it finds a precise meaning equivalent in every human language (Goddard 2010). In contrast, 'understands' is used far less frequently, learned later in life, and features less often in our practice of epistemic assessment. These facts suggest that knowledge-talk plays a more important role in epistemic evaluation than understanding-talk.

Knowledge-talk also seems more closely tied to tracking norms of assertion and practical reasoning than understanding-talk. This is because knowledge ascriptions (and denials) align with natural assessments of assertion and practical reasoning in ordinary language. Here's an example: it seems appropriate to challenge assertions by asking the asserter, 'How do you know that?' (Williamson 2000: 252; Unger 1975: 250-65). In contrast, we are far less inclined to challenge assertions by asking about understanding. Similarly, we can rightfully criticize a person's actions or reasoning when that person acted without knowledge; for instance, 'You shouldn't have gone down this street, since you didn't know that the restaurant was there' (Hawthorne and Stanley 2008: 571). Again, we are less likely to criticize action or practical reasoning by appealing to understanding.<sup>36</sup>

---

<sup>35</sup> In more recent work, Pritchard seems to grant this point (2016: 34). However, he argues that our inquiries *ought not* to be sated by mere knowledge of the answer to one's question. An agent who is generally willing to regard inquiries as legitimately closed even though the relevant understanding has not been attained lacks intellectual virtue, according to Pritchard. I think this is also too strong.

<sup>36</sup> Cf. Hills (2015:20-23) for the idea that understanding-why has at least as important a role in action as knowledge.

These knowledge norms are not uncontroversial; many counterexamples have been offered.<sup>37</sup> But even if knowledge is neither necessary nor sufficient for warranted assertion or practical reasoning, it is plausible that ‘knowledge’ *normally* picks out the epistemic standard for assertion and practical reasoning, as Gerken (2015) and I ([removed]) have argued. This explains why competent and rational speakers frequently use ‘knows’ when evaluating assertions and practical reasoning (because knowledge is normally required) even though knowledge is not the relevant epistemic norm (because sometimes more, or less, than knowledge is needed).

Thus, knowledge ascriptions seem to play valuable social roles that understanding attributions do not. Specifically, knowledge ascriptions serve the interrelated functions of identifying reliable informants, typically signaling the appropriate end of inquiry, and providing a threshold-marker that indicates that the epistemic standard that is usually necessary and sufficient for assertion and practical reasoning has been met. The same cannot be said for understanding attributions.<sup>38</sup>

## 8. Conclusion

I make two proposals in this paper. First, I suggest that we can make headway in the epistemology of understanding by taking a function-first approach. Second, I hypothesize that humans think and speak in terms of ‘understanding’ because it allows us to certify good explainers, which is an important dimension of epistemic evaluation.<sup>39</sup> As cognitively dependent explanation-seekers, we need a way to identify informants who can provide us with good explanations for both practical and theoretical purposes.

This hypothesis throws light on the nature and value of understanding, the role of explanation in understanding, and the relationship between understanding and knowledge. I have argued that understanding and knowledge play different social roles, since the latter is not necessarily geared towards an explanation of why such-and-such is the case. Examining these two cognitive achievements from the point of view of their function also sheds light on epistemic value. Specifically, we see that understanding is valuable and yet knowledge might play a more important role in human survival and flourishing. Roughly, knowledge is closely tied to answering our need for true beliefs whereas understanding answers our need for good explanations. Ordinary inquiry is typically aimed at true beliefs, which is why knowledge matters, but sometimes we need more than just true beliefs to get by in the world. We want to grasp a variety of connections; we want to anticipate what would have happened had things been different; we want to see how things ‘hang together’. Thus, understanding is valuable even though the concerns of practical life will often impede us from reaching for the highest epistemic fruit.

---

<sup>37</sup> For criticisms of the knowledge norms, see Douven (2006), Lackey (2007), Weiner (2007), Brown (2008), Gerken (2011), Reed (2010), and Smithies (2012).

<sup>38</sup> Hills (2015) also suggests that although understanding is valuable, knowledge might be more important.

<sup>39</sup> These two proposals are not inseparable. You might endorse the function-first methodology while rejecting my hypothesis about the function of understanding attributions; or you might reject this methodological approach but still think there is an important conceptual connection between understanding and identifying good explainers.

## Bibliography

- Boyd, K. 2015. 'Testifying Understanding.' *Episteme*. DOI: <http://dx.doi.org/10.1017/epi.2015.53>
- Brogaard, B. 2005. 'I Know, Therefore I Understand.' Unpublished.
- Brown, J. 2008. 'Knowledge and Practical Reason.' *Philosophy Compass* 3 (6): 1135-1152.
- Chalmers, D. 2011. 'Verbal Disputes.' *Philosophical Review* 120 (4): 515-566
- Craig, E. 1990. *Knowledge and the State of Nature*. Oxford University Press.
- Craik, K. 1934. *The Nature of Explanations*. Cambridge University Press.
- Davies, M. & Gardner, D. 2010. *Frequency Dictionary of American English*. Routledge.
- de Regt, H. 2009. 'Understanding and Scientific Explanation.' In *Scientific Understanding: Philosophical Perspectives* (Eds.) HW de Regt, S. Leonelli, & K. Eiger. University of Pittsburg Press, 21-42.
- Dogramaci, S. 2012. 'Reverse Engineering Epistemic Evaluations.' *Philosophy and Phenomenological Research* 84 (3): 513-530.
- Douven, I. 2006. 'Assertion, Knowledge, and Rational Credibility.' *Philosophical Review* 115 (4): 449-485.
- Elgin, C. 2007. 'Understanding and the Facts.' *Philosophical Studies* 132 (1): 33-42.
- Fricker, M. 2008. 'Scepticism and the Genealogy of Knowledge: Situating Epistemology in Time.' *Philosophical Papers* 37 (1): 27-50.
- Gelfert, A. 2011. 'Steps to an Ecology of Knowledge: Continuity and Change in the Genealogy of Knowledge.' *Episteme* 8 (1): 67-82.
- Gerken, M. 2015. 'The Roles of Knowledge Ascriptions in Epistemic Assessment.' *European Journal of Philosophy* 23 (1): 141-161.
- . 2011. 'Warrant and Action.' *Synthese* 178 (3): 529-547.
- Gijssbers, V. 2013. 'Understanding, Explanation, and Unification.' *Studies in History and Philosophy of Science* 44 (3): 516-522.
- Goddard, C. 2010. 'Universals and Variation in the Lexicon of Mental State Concepts.' In *Words and the Mind* (Eds.) B. Malt and P. Wolff. Oxford University Press, 72-92.
- Goldman, A. 1986. *Epistemology and Cognition*. Harvard University Press.
- Gopnik, A. 2000. 'Explanation as Orgasm and the Drive for Causal Understanding: The Evolution, Function and Phenomenology of the Theory-Formation System.' In *Cognition and Explanation* (Eds.) F. Keil & R. Wilson. MIT Press.
- Greco, J. 2014. 'Episteme: Knowledge and Understanding.' In *Virtues and Their Vices* (Eds.) K. Timpe & C. Boyd. Oxford University Press, 286-302.
- . 2008. 'What's Wrong with Contextualism?' *Philosophical Quarterly* 58 (232): 416- 436.
- Grimm, S. 2016. 'Understanding and Transparency.' In *Explaining Understanding: New Essays in Epistemology and the Philosophy of Science* (Ed.) S. Grimm. Routledge.
- . 2015. Knowledge, Practical Interests, and Rising Tides. In *Epistemic Evaluation: Point and Purpose in Epistemology* (Eds.) J. Greco & D. Henderson. Oxford University Press.

- . 2014. 'Understanding as Knowledge of Causes.' In *Virtue Epistemology Naturalized: Bridges between Virtue Epistemology and Philosophy of Science* (Ed.) A. Fairweather. Synthese Library. Springer, 329-345.
- . 2012. 'The Value of Understanding.' *Philosophy Compass* 7 (2): 103-117.
- . 2008. 'Epistemic Goals and Epistemic Values.' *Philosophy and Phenomenological Research* 77 (3): 725-744.
- . 2006. 'Is Understanding a Species of Knowledge?' *British Journal for the Philosophy of Science* 57 (3): 515-535.
- Hannon, M. 2016. 'A Solution to Knowledge's Threshold Problem.' *Philosophical Studies*. DOI: 10.1007/s11098-016-0700-9.
- . 2015. 'The Importance of Knowledge Ascriptions.' *Philosophy Compass* 10 (12): 856-866.
- Hawthorne, J. 2004. *Knowledge and Lotteries*. Oxford University Press.
- Hawthorne, J. & Stanley, J. 2008. 'Knowledge and Action.' *Journal of Philosophy* 105 (10): 571-590.
- Hempel, C. 1965. *Aspects of Scientific Explanation and Other Essays in the Philosophy of Science*. The Free Press.
- . 1962. 'Explanation in Science and in History.' In *Frontiers of Science and Philosophy* (Ed.) R. G. Colodny. University of Pittsburgh Press, 7-33.
- Hempel, C. & Oppenheim, P. 1948. 'Studies in the Logic of Explanation.' *Philosophy of Science* 15: 135-75.
- Henderson, D. 2009. 'Motivated Contextualism.' *Philosophical Studies* 142 (1): 119-131.
- Hetherington, S. 2001. *Good Knowledge, Bad Knowledge: On Two Dogmas of Epistemology*. Oxford University Press.
- Hills, A. 2015. 'Understanding Why.' *Nous*. DOI: 10.1111/nous.12092.
- Kappel, K. 2010. 'On Saying That Someone Knows: Themes From Craig.' In *Social Epistemology* (Eds.) A. Haddock, A. Millar & D. Pritchard. Oxford University Press.
- Keil, F. C. 2006. 'Explanation and Understanding.' *Annual Review of Psychology* 57: 227-54.
- Kelp, C. 2015. 'Understanding Phenomena.' *Synthese* 192 (12): 3799-3816.
- . 2014. 'Knowledge, Understanding, and Virtue.' In *Virtue Epistemology Naturalized: Bridges between Virtue Epistemology and Philosophy of Science* (Ed.) A. Fairweather. Synthese Library. Springer, 347-60.
- Khalifa, K. 2013. 'Understanding, Grasping, and Luck.' *Episteme* 10 (1): 1-17.
- . 2012. 'Inaugurating Understanding or Repackaging Explanation?' *Philosophy of Science* 79 (1): 15-37.
- . 2011. 'Understanding, Knowledge, and Scientific Antirealism.' *Grazer Philosophische Studien* 83 (1): 93-112.
- Kim, J. 1996. *Philosophy of Mind*. Westview Press.
- . 1994. 'Explanatory Knowledge and Metaphysical Dependence.' *Philosophical Issues* 5: 51-69.
- Kitcher, P. 1989. 'Explanatory Unification and the Causal Structure of the World.' In *Scientific Explanation* (Eds.) P. Kitcher & W. Salmon. University of Minnesota Press, 410-505.

- Kusch, M. 2011. 'Knowledge and Certainties in the Epistemic State of Nature.' *Episteme* 8 (1): 6-23.
- Kvanvig, J. 2009. 'The Value of Understanding.' In *Epistemic Value* (Eds.) D. Pritchard, A. Haddock & A. Millar. Oxford University Press, 95-112.
- . 2003. *The Value of Knowledge and the Pursuit of Understanding*. Cambridge University Press.
- Lackey, J. 2007. 'Norms of Assertion.' *Noûs* 41 (4): 594–626.
- Lipton, P. 2009. 'Understanding without Explanation.' In *Scientific Understanding: Philosophical Perspectives* (Eds.) HW de Regt, S. Leonelli, & K. Eiger. University of Pittsburg Press, 43-63.
- Lombrozo, T. 2011. 'The Instrumental Value of Explanations.' *Philosophy Compass* 6 (8): 539-551.
- . 2006. 'The Structure and Function of Explanations.' *Trends in Cognitive Sciences* 10: 464-70.
- McKenna, R. 2013. 'Epistemic Contextualism: A Normative Approach.' *Pacific Philosophical Quarterly* 94 (1): 101-123.
- Millar, A. 2011. 'Why Knowledge Matters.' *Aristotelian Society Supplementary Volume* 85 (1): 63-81.
- Morris, K. 2012. 'A Defense of Lucky Understanding.' *British Journal for the Philosophy of Science* 63 (2): 357-371.
- Murphy, G. L. & G. L. Medin. 1985. 'The Role of Theories in Conceptual Coherence.' *Psychological Review* 92: 289-316
- Neta, R. 2006. 'Epistemology Factualized: New Contractarian Foundations for Epistemology.' *Synthese* 150 (2): 247-280.
- Pritchard, D. 2016. 'Seeing It for Oneself: Perceptual Knowledge, Understanding, and Intellectual Autonomy.' *Episteme* 13 (1): 29-42.
- . 2012. 'Anti-Luck Virtue Epistemology.' *Journal of Philosophy* 109 (3): 247-279.
- . 2010. 'Knowledge and Understanding.' In *The Nature and Value of Knowledge: Three Investigations* (Eds.) D. Pritchard, A. Millar, & A. Haddock. Oxford University Press.
- . 2009. 'Knowledge, Understanding and Epistemic Value.' In *Epistemology* (Ed.) A. O'Hear. Cambridge University Press, 19-43.
- Riaz, A. 2015. 'Moral Understanding and Knowledge.' *Philosophical Studies* 172 (1): 113-128.
- Riggs, 2009. 'Understanding, Knowledge, and the Meno Requirement.' In *Epistemic Value* (Eds.) A. Haddock, A. Millar, & D. Pritchard. Oxford University Press.
- Rozenblit, L. & F. Keil. 2002. 'The Misunderstood Limits of Folk Science: An Illusion of Explanatory Depth.' *Cognitive Science* 26: 521-562.
- Rysiew, P. 2012. 'Epistemic Scorekeeping.' In *Knowledge Ascriptions* (Eds.) J. Brown & M. Gerken. Oxford University Press, 270-293.
- Salmon, W. 1984. 'Scientific Explanation: Three Basic Conceptions.' *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*: 293 - 305.

- Schurz, G. 1999. 'Explanation as Unification.' *Synthese* 120 (1): 95-114.
- Shatz, M., H. Wellman, & S. Silber. 1983. 'The Acquisition of Mental Verbs: A Systematic Investigation of the First Reference to Mental State.' *Cognition* 14: 301-314.
- Sliwa, P. 2015. 'Understanding and Knowing.' *The Proceedings of the Aristotelian Society* 115 (1): 57-74.
- Smithies, D. 2015. 'Why Justification Matters.' In *Epistemic Evaluation: Point and Purpose in Epistemology* (Eds.) D. Henderson & J. Greco. Oxford University Press, 224-244.
- . 2012. 'The Normative Role of Knowledge.' *Noûs* 46 (2): 265-288.
- Strevens, M. 2013. 'No Understanding Without Explanation.' *Studies in History and Philosophy of Science* 44 (3): 510-515.
- . 2008. *Depth: An Account of Scientific Explanation*. Harvard University Press.
- Trout, J. D. 2002. 'Scientific Explanation and the Sense of Understanding.' *Philosophy of Science* 69 (2): 212-233.
- Unger, P. 1975. *Ignorance: A Case for Scepticism*. Oxford University Press.
- Weinberg, J. 2006. 'What's Epistemology For? The Case for Neopragmatism in Normative Metaepistemology.' In *Epistemological Futures* (Ed.) S. Hetherington. Oxford University Press, 26-47.
- Weiner, M. 2007. 'Norms of Assertion.' *Philosophy Compass* 2 (2): 187-195.
- Wellman, H.M., Hickling, A.K., & Schult, C.A. 1997. 'Young children's explanations: Psychological, Physical, and Biological Reasoning.' In *The Emergence of Core Domains of Thought: Physical, Psychological, and Biological Thinking* (Eds.) H. Wellman & K. Inagaki. Wiley, 7-25.
- Wilkenfeld, D. 2014. 'Functional Explaining: A New Approach to the Philosophy of Explanation.' *Synthese* 191 (14): 3367-3391.
- Wilkenfeld, D., D. Plunkett, & T. Lombrozo. 2016. 'Depth and Deference: When and Why We Attribute Understanding.' *Philosophical Studies* 173 (2): 373-393.
- Williams, B. 2002. *Truth and Truthfulness: An Essay in Genealogy*. Princeton University Press.
- Williamson, T. 2000. *Knowledge and its Limits*. Oxford University Press.
- Woodward, J. 2003. *Making Things Happen: A Theory of Causal Explanation*. Oxford University Press.
- Zagzebski, L. 2001. 'Recovering Understanding.' In *Knowledge, Truth, and Duty: Essays on Epistemic Justification, Responsibility, and Virtue* (Ed.) M. Steup. Oxford University Press, 235-252.