

# Knowledge, Understanding and Virtue

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## 1 Introduction

According to a thesis that has enjoyed a high degree of popularity in the philosophy of science:

UK. Understanding is a species of knowledge.

While there may be some disagreement over how to unpack this thesis in more detail, it seems fair to say that the received view, apparently dating back as far as Aristotle (see Greco 2010: 9), is that understanding is knowledge of causes. Peter Lipton states the view nicely in the following passage:

Understanding is not some sort of super-knowledge, but simply more knowledge: knowledge of causes. (Lipton 2004: 30)

Other proponents of and sympathisers with UK include Peter Achinstein (1983), Wesley Salmon (1989), James Woodward (2003) and Philip Kitcher (2002). One of the obvious selling points of UK is its simplicity and elegance. Another one concerns considerations about the aim of inquiry. As Alan Millar (in Pritchard et al. (2010: 98)) has aptly pointed out, a natural way of expressing the goal of our ordinary everyday inquiries is in terms of knowledge. In inquiring into things like whether the bank will be open on Saturday, where the meeting will take place or who took the car keys, we are trying to come to know the answers to these questions. At the same time, a natural way of expressing the goal of scientific inquiries, and one that a number of philosopher's of science have been attracted to (see e.g. Salmon 1998; Lipton 2004; DeRegt and Dieks 2005; Strevens 2006), is in terms of understanding. Astronomy aims to understand celestial objects, biology aims to understand various aspects of living organisms etc. UK promises to unify these two plausible conceptions of the aim of ordinary and scientific inquiry.

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At the same time, virtue theories of knowledge have been on the rise in recent epistemology. According to virtue theories:

VK. One knows that  $p$  if and only if one's believing  $p$  truly is due to the exercise of cognitive competence.

If one accepts that successes due to the exercise of competence are achievements, VK is equivalent to the thesis that knowledge is a sort of achievement. Accordingly, the view is also sometimes stated as follows:

VK\*. Knowledge is a cognitive achievement.

Contemporary proponents of versions of VK include Ernest Sosa (e.g. 2007, 2010), John Greco (e.g. 2010) and Wayne Riggs (e.g. 2002, 2009). I have also defended a version of the view in Kelp 2011. Among the obvious advantages of VK are its simplicity and elegance. Furthermore, champions of VK have claimed that VK offers a solution to the Gettier problem. Most notably for present purposes, champions of virtue theories have argued that VK yields an account of the value of knowledge according to which knowledge is valuable for its own sake, or *finally* valuable. (Greco 2010: 99)

Combining UK with VK gives us a virtue theory of both knowledge and understanding. This seems desirable in view of the fact that a “basic commitment [of virtue epistemology] is that intellectual agents and communities are the primary source of epistemic value and the primary focus of epistemic evaluation.” (Greco and Turri 2011: §1) The thought here is that properties of agents rather than properties of beliefs are the primary source of epistemic evaluation. In view of this commitment, it is desirable that one have a virtue theory of all epistemic standings if one has a virtue theory of any one such standing. Another benefit for proponents of UK is that they get a plausible account of the value of understanding, according to which understanding is finally valuable, for free.

These considerations make UK and VK an appealing package deal. However, a number of epistemologists have objected to both VK and UK. The most prominent foes of VK are Jennifer Lackey (2007, 2009) and Duncan Pritchard (e.g. in his contribution to Pritchard et al. (2010)), while UK has been challenged by Jonathan Kvanvig (2003, 2009), Catherine Elgin (1996, 2006, 2009), Linda Zagzebski (2001) and Pritchard (2009, and his contribution to Pritchard et al. (2010)). The various attacks on UK can be distinguished in terms of the conception of understanding they are directed towards. It is by now fairly standard in epistemology to distinguish between “objectual” understanding, such as understanding phenomena, people and theories on the one hand, and “propositional” understanding, such as understanding why something is the case or how to do something on the other. I would like to suggest that the objections due to Kvanvig, Elgin and Zagzebski are best understood as objections to knowledge based accounts of objectual understanding, while Pritchard's objections concern propositional understanding and, more specifically, understanding why.

In a different paper (Kelp 2013), I have developed a novel knowledge based account of objectual understanding and argue (a) that it avoids Kvanvig, Elgin and

Zagzebski's objections and (b) that there is reason to prefer it to the non-knowledge based competitors Kvanvig, Elgin and Zagzebski offer. Once we have a version of UK for objectual understanding in play, we should of course be especially keen to have a version of UK for propositional understanding, if only for unity's sake. For that reason, in this paper, I will turn to Pritchard's objections and his alternative accounts of understanding and knowledge. More specifically, what I will try to do is to defend the VK-UK package deal against Pritchard.

## 2 Pritchard's Arguments and Alternative

### 2.1 Pritchard's Argument Against UK

Pritchard interprets UK as a thesis about propositional understanding. More specifically, according to the thesis Pritchard attacks:

UK<sub>p</sub>: [U]nderstanding why *X* is the case is equivalent to knowing why *X* is the case, where this is in turn equivalent to knowing that *X* is the case because of *Y*. (Pritchard et al. 2010: 74)

Against UK<sub>p</sub>, Pritchard argues that knowing that *X* is the case because *Y* is neither necessary nor sufficient for understanding why *X* is the case. I will start with the argument against the sufficiency thesis. Here Pritchard offers the following case:

*Young Son*. Ernie arrives back home and discovers to his horror that his house is on fire. The firefighter in charge tells Ernie that faulty wiring caused the house to be on fire. Ernie's young son asks him why his house is on fire and Ernie tells him that it is on fire because of faulty wiring.

According to Pritchard, Ernie's son's belief that the house is on fire because of faulty wiring qualifies as knowledge. At the same time, Ernie's son may have "no conception of how faulty wiring might cause a fire" (Pritchard et al. 2010: 81) and as a result Ernie's son does not understand why his house burned down.

I don't find Pritchard's case convincing essentially for the reasons given by Stephen Grimm (2014) in his contribution to this volume, which is why I will not discuss the case any further here. Instead I would like to turn to Pritchard's second case, which is intended to show that knowledge of causes is not necessary for understanding why. Here goes:

*Fake Firefighters*. Ernie arrives back home and discovers to his horror that his house is on fire. He approaches a firefighter who is standing in front of the house and asks him what happened. The firefighter tells Ernie that his house burned down due to faulty wiring. Unbeknownst to Ernie, he is talking to the only real firefighter among a group of loiterers in firefighter outfits who would have given him a false answer. (Pritchard et al. 2010: 79)

Pritchard points out that the case is structurally analogous to the infamous fake barn case (see also below) and so Ernie doesn't know that his house is on fire

because of faulty wiring. At the same time, the thought is that intuitively he does understand why the house is on fire. We are thus said to have a case in which someone understands why  $X$  but does not know that  $X$  because of  $Y$ .

## 2.2 Pritchard's Argument Against VK

Pritchard's objections to the VK-UK bundle do not stop with his worries about UK. On the contrary he also offers a number of arguments against VK. Pritchard also thinks that VK doesn't state a necessary condition on knowledge:

*Landmark.* Rosita arrives at the train station in an unknown city and asks the first passerby she encounters for directions to a famous landmark. Her informant is a knowledgeable resident of the city who tells her that the landmark is straight ahead on Greenwich Street and Rosita forms the corresponding belief.

Intuitively, Rosita knows that the landmark is on Greenwich Street. However, argues Pritchard, her belief is not true due to Rosita's competence. Rather, if anything, it is true due to the competences of her informant. Again, if Pritchard is right about this, Rosita does know but does not satisfy the right-hand side of VK and we have a further problem for VK. (Pritchard et al. 2010: ch. 2.6)

I agree with Pritchard that Landmark poses a problem for VK if the due to relation is unpacked in terms of explanatory salience; in particular, if a success is due to the exercise of competence only if the success is primarily creditable to the exercise of competence. After all, it seems right that, in Landmark and similar cases, the testifier's cognitive competences are more salient in the explanation of the testifier's cognitive success than the testifier's own competences. However, there is excellent independent reason to believe that champions of VK had better not construe the due to relation in this way (see e.g. Sosa 2007: 86). A more promising alternative is to construe the due to relation in terms of competence manifestation (see e.g. Sosa 2010). As I argue elsewhere (Kelp 2009a, 2011), this account avoids the problems posed for VK by cases like Landmark. Thus cases like Landmark do not pose a decisive problem for VK.

Finally Pritchard also argues that VK's competence condition is not sufficient for knowledge. More specifically, he takes the infamous fake barn case to establish this:

*Fake Barns.* Grover, a reliable barn spotter, drives through the countryside, sees a barn in the field on the right and comes to believe that he is facing a barn. Unbeknownst to Grover, the barn he is looking at is the only real barn in a field otherwise populated with barn façades that are so cleverly constructed that Grover could not distinguish them from real barns from his position on the road.

Intuitively, Grover doesn't know that he is facing a barn. At the same time, it looks as though Grover truly believes that he is facing a barn due to his reliable barn spotting competence. If this is correct, then Grover lacks knowledge whilst satisfying the right-hand side of VK. Fake Barns thus constitutes a problem for VK. (Pritchard et al. 2010: ch. 2.5)

### 2.3 *Pritchard's Alternative*

Pritchard does not stop with pointing out some problems for VK and UK. On the contrary he offers alternative accounts of both knowledge and understanding which he considers superior to VK and UK because they accommodate the intuitions in all the cases he thinks pose a problem for VK and UK. More specifically, Pritchard proposes to deal with cases like Fake Barns by placing an additional safety condition on knowledge. At the same time, Pritchard acknowledges that safety alone isn't sufficient for knowledge. A further competence condition on knowledge is needed. However, since Pritchard thinks that cases like Landmark show that the competence condition at issue in VK is too strong, he offers a weaker version of the competence condition that, he claims, can accommodate the intuitions in these cases. More specifically, the account of knowledge Pritchard ends up with takes the following shape:

PK. S knows that  $p$  if and only if S's safe true belief that  $p$  is the product of her relevant cognitive abilities (such that her safe cognitive success is to a significant degree creditable to her cognitive agency). (Pritchard 2012: 273)

Moving on to understanding, Pritchard takes Fake Firefighters to show that there is no safety condition on understanding. At the same time, he takes understanding to be a genuine cognitive achievement and so endorses (roughly) the following account of understanding:

PU. Understanding why  $p$  is true belief that  $p$  because  $q$  that is due to the exercise of cognitive competence.<sup>1</sup>

Pritchard thus offers his PK-PU bundle as alternative to the VK-UK package deal and claims that it is preferable to its competitor because it accommodates a number of intuitions that VK-UK struggles to accommodate. I have reservations about both PK and PU, which I will not press here. At the same time, I will assume that the responses to Young Son and Landmark I have pointed to will indeed do the job for champions of VK-UK. This leaves Pritchard's argument that Fake Firefighters shows that UK fails left to right and Fake Barns shows that VK fails right to left. In what follows I will develop two ways in which champions of VK-UK can handle these cases: the first one is to accept the counterintuitive consequence that agents in cases like Fake Barns and Fake Firefighters know, while the second one draws on my account of objectual understanding to offer an alternative account of understanding why that gets the cases right.

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<sup>1</sup>Pritchard actually endorses a slightly different account of achievement so that his resulting account of understanding ends up being slightly different also. However, these differences are of no consequence for the purposes of this paper.

### 3 Response 1: Accepting the Counterintuitive Result

The first response on behalf of the champion of VK-UK I would like to consider consists in accepting the counterintuitive consequence that agents in cases like Fake Barns and Fake Firefighters have knowledge. To begin with, notice that this move will do the trick for champions of VK-UK. In particular, the problem for VK is solved, admittedly at the cost of accepting a counterintuitive consequence. At the same time, the problem posed for UK by Fake Firefighters disappears at no cost at all. After all, VK thus understood predicts that Ernie knows why his house burned down. As a result, UK predicts, correctly, that Ernie understands why his house burned down.

The remainder of this section will be devoted to arguing that the cost of accepting the counterintuitive result in these cases is itself manageable and that the resulting VK-UK bundle is at any preferable to Pritchard's alternative PK-PU package deal.

#### 3.1 *A Manageable Cost*

In order to warm yourself up to the thought of accepting that agents in cases like Fake Barns and Fake Firefighters know, it may be worth noting that the intuition of ignorance is not universally shared. A number of people, perhaps most notably Ruth Millikan (1984), have claimed not to have it. What's more, as Tamar Gendler and John Hawthorne (2005) argue, the intuitions in cases that share the same structure with Fake Barns are highly unstable, which should also make accepting the counterintuitive result more tolerable.

Notice also that the problem cases for VK constitute a fairly isolated class. In particular they differ from standard Gettier cases in that, as Pritchard himself rightly points out, the way luck enters the story is quite different in the two types of case. In standard Gettier cases—Havit/Nogot, Sheep etc.—luck “intervenes betwixt ability and success.” (Pritchard 2009: 23) In other words, the problem here is, roughly, that something goes wrong in the process of belief acquisition and the agent, luckily, gets it right nonetheless. As opposed to that, in cases like Fake Barns and Fake Firefighters nothing goes wrong in the process of belief acquisition. Rather, the problem is rooted in the agent's environment. The agent is lucky because she gets it right despite being in an epistemically unfriendly environment in which she might so easily have got it wrong. Cases like Fake Barns and Fake Firefighters are thus importantly different from standard Gettier cases. At the same time, there is every reason to believe that VK will be able to handle standard Gettier cases. In fact, Pritchard himself claims that even his weak virtue condition on knowledge will handle these cases.

These initial considerations suggest that denying the intuition in these cases will constitute a surveyable cost. And yet denying the intuition of ignorance in cases like Fake Barns and Fake Firefighters will be viable only if we have a plausible

explanation of why it should seem so intuitive that the agents in these cases lack knowledge. One explanation that seems particularly appealing to me exploits the following “safety heuristic”:

SH. In judging whether one knows, we assess how easily one might have been mistaken. If we judge that one might very easily have been mistaken, we judge (intuitively) that one does not know.

I would like to suggest that SH is a useful heuristic, one that makes judgements of knowledge and ignorance easy to make, while, at the same time, being highly reliable: most cases of ignorance will be cases in which one might easily have been mistaken and most cases of knowledge will be cases in which one might not easily have been mistaken.

At the same time, champions of VK may argue, SH is no more than a useful heuristic. After all, there is independent reason to believe that the safety principle according to which one knows that  $p$  only if one could not very easily have been mistaken about  $p$  does not constitute a genuine necessary condition on knowledge. To see this consider the following case:

*Grandfather Clock.* Elmo’s arch-nemesis, a powerful demon, has an interest that Elmo forms a belief that it’s 8:22 by looking at the grandfather clock in the hallway when he comes down the stairs. Elmo’s arch nemesis is prepared to do whatever it may take in order to ensure that Elmo acquires a belief that it’s 8:22 by looking at the grandfather clock when he comes down the stairs. However, Elmo’s arch-nemesis is also lazy. He will act only if Elmo does not come down the stairs at 8:22 of his own accord. Suppose, as it so happens, Elmo does come down the stairs at 8:22. Elmo’s arch-nemesis remains inactive. Elmo forms a belief that it’s 8:22. It is 8:22. The grandfather clock is working reliably as always.

Here, intuitively, Elmo knows that it’s 8:22. At the same time, Elmo might very easily have been mistaken about the time. Had he come down a minute earlier or later, his arch-nemesis would have set the clock to 8:22 and Elmo would have been mistaken in his belief about the time.<sup>2</sup>

Given that SH constitutes a useful heuristic for making judgements of knowledge and ignorance, but no more than that, champions of VK have all it takes to explain the intuition of ignorance in cases like Fake Barns and Fake Firefighters. We realise that the agents in these cases might very easily have been mistaken and on the basis of SH judge, intuitively but erroneously, that they lack knowledge.

So, the thought then is that the cost of accepting the counterintuitive consequence that agents in cases like Fake Barns and Fake Firefighters know is an acceptable cost to the champion of VK-UK. Not only is the intuition not universally shared and has been argued to be unstable, but the range of problematic cases is also surveyable. Most importantly, there is a plausible explanation of why we should have a mistaken intuition in these cases in terms of SH.

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<sup>2</sup>In Kelp (2009b) I argue that this case causes a problem even for the most refined versions of the safety principle on the epistemological market. For further counterexamples to safety see Neta and Rohrbaugh (2004) and Comesaña (2005).

### 3.2 *VK-UK Versus PK-PU*

So, which of the two package deals should we accept, VK-UK or PK-PU? One might think that PK-PU still has an edge over VK-UK because it does not accept any counterintuitive consequences and thus need do no explaining away. A closer look reveals that this argument would be too quick. As Pritchard himself notices, abandoning VK means losing the neat account of the value of knowledge that VK offered. In fact Pritchard finds himself forced to concede that knowledge is not distinctively valuable. Pritchard acknowledges that this is a counterintuitive consequence of his view but aims to take the sting out of it by arguing (i) that understanding rather than knowledge is distinctively valuable while, at the same time, (ii) understanding “tends to go hand-in-hand with knowledge” (Pritchard et al. 2010: 83) which explains why we would mistakenly think that knowledge is distinctively valuable. It transpires, then, that, by Pritchard’s own lights, PK-PU also has counterintuitive consequences that need to be explained away. It’s just that the counterintuitive consequences arise at another point in his theory. As far as counterintuitive consequences are concerned, then, the two bundles appear to be on equal footing.

Whether or not PK-PU itself has counterintuitive consequences that need to be explained away, there is reason to think that VK-UK is preferable to Pritchard’s alternative on grounds of simplicity, elegance and uniformity in explanation. To begin with, VK, which countenances only a virtue condition on knowledge, is simpler and more elegant than PK, which countenances both a virtue and a safety condition. Moreover, the VK-UK bundle is also more uniform than the PK-PU bundle in that it gives a pure virtue theoretic account of both knowledge and understanding, while the PK-PU bundle combines a pure virtue theoretic account of understanding with a hybrid account of knowledge. (This may be of particular significance once one remembers that the basic commitment of virtue theory was that the primary focus of epistemic evaluation is on agents and communities rather than beliefs. By going hybrid, it seems that Pritchard has to give up this commitment.) VK-UK also offers a more unified account of the involvement of virtue in knowledge and understanding: for both the relevant cognitive success must be due to the exercise of competence. In contrast, Pritchard takes virtues to be involved in very different ways here. Moreover, by the lights of VK-UK, both knowledge and understanding enjoy the same kind of value, i.e. both are by their nature finally valuable. In contrast, Pritchard maintains that understanding is by its nature finally valuable, while knowledge isn’t (although individual items of knowledge can be). Relatedly, Pritchard is committed to a version of epistemic value pluralism, while VK-UK is at least compatible with a version of monism according to which knowledge is the sole fundamental epistemic value. Unsurprisingly, I would also add that VK-UK value fits more nicely with the kind of knowledge based account of objectual understanding I favour.

Finally, it is hard to see how Pritchard can unify the thesis that knowledge is the aim of ordinary inquiry with the thesis that understanding is the aim of scientific inquiry. True, Pritchard (2009) offers an account of the aim of ordinary inquiry that would do the trick, *viz.* that understanding is the aim of ordinary inquiry. However, there is excellent reason to think that the thesis that understanding is the goal of



ordinary inquiry is too strong to be plausible. In support of his thesis Pritchard considers a case in which someone finds his house on fire and is naturally led to inquire into the reason why it burned down. Pritchard points out that this inquiry will not be properly terminated until that person has come to understand why his house is on fire. I agree with Pritchard on this example. Crucially, the reason why inquiry here aims at understanding is grounded in the fact that the agent's curiosity is directed at the explanation of an event: the agent wants to find out why the house burned down. Notice, however, that very often our curiosity is directed at pure (i.e. non-explanatory) information. Suppose I am craving a certain type of chocolate. In this situation, I may want to know whether the store that's a ten-minute walk from where I am is still open and whether it has the type of chocolate I am craving in stock. It is of no interest whatsoever to me that the shop is still open because the owner has had an argument with his wife and is putting off going home or that they have the type of chocolate I crave in store because the delivery arrived a day early. Here the explanations are simply of no interest to me. Accordingly, it is very plausible that my inquiry can reach its goal and can be properly terminated even if I don't acquire understanding of why the relevant propositions are true. If that is correct, then it cannot be the case that understanding why constitutes the goal of ordinary inquiry.

It transpires that, by Pritchard's own lights, PK-PU does not have an advantage vis-à-vis VK-UK on the grounds that it gives a charitable account of all intuitions. While the present version of VK-UK explains away the intuition of ignorance in cases like Fake Barns, PK-PU explains away the intuition that knowledge is distinctively valuable. At the same time, VK-UK clearly outperforms Pritchard's alternative on theoretical virtues such as simplicity, uniformity and elegance. Indeed, I am inclined to think that the theoretical benefits VK-UK can claim against PK-PU are so great that even if PK-PU could give a charitable account of all intuitions, there would be excellent reason to favour VK-UK over PK-PU.<sup>3</sup>

## 4 Response 2: An Alternative Account of Understanding Why

One way of responding to Pritchard's argument against VK-UK is by accepting that agents in cases like Fake Barns know. While I think that this is a promising way of proceeding, I don't think that it is the only option available for the champion of VK-UK. In what follows I will outline yet another way of resisting Pritchard's argument against UK. Here I will leave open how champions of VK-UK ought deal with Pritchard's argument against VK. In particular, the account offered here will be compatible with a version of VK according to which agents in cases like Fake Barns lack knowledge.<sup>4</sup>

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<sup>3</sup>Of course, this is not to say that VK-UK has now been established. There might be theory that does better than VK-UK so understood.

<sup>4</sup>Some such accounts have been offered by Greco (2010), Sosa (2010) and myself (Kelp 2011).

## 4.1 *Some More Data*

Recall that according to Pritchard understanding why  $p$  is true belief that  $p$  because  $q$  that is due to the exercise of cognitive competence. Recall also that Pritchard distinguishes between two ways in which luck can affect one's true belief that  $p$ : 'intervening luck' where something goes wrong in the process of belief-formation and 'environmental luck' where the agent is in an unfriendly epistemic environment. According to Pritchard, understanding why  $p$  is incompatible with intervening luck but compatible with environmental luck, as cases like Fake Firefighters are supposed to establish.

As a first step I would like argue that understanding why  $p$  is not generally compatible with environmental luck. Consider the following pair of cases:

*Shot in the Head.* Zoe watches a man being shot in the head and die instantaneously. She comes to believe that he died because he was shot in the head.

*Imminent Heart Attack.* Zoe watches a man being shot in the head and die instantaneously. She comes to believe that he died because he was shot in the head. Unbeknownst to Zoe the man was also suffering from a heart attack that would have been the cause of his death had the shot been fired a second later.<sup>5</sup>

My intuitions here are that in Shot in the Head Zoe both knows and understands why the man died. In contrast, in Imminent Heart Attack, Zoe neither knows nor understands why the man died. The problem for Pritchard here is that it is hard to see how his account can accommodate these intuitions. True, Zoe is lucky to have got it right in Imminent Heart Attack. However, the type of luck that afflicts her belief is not Pritchard's intervening luck. After all, nothing goes wrong in the process of belief-formation. Rather, the problem here is that Zoe is in an epistemically unfriendly environment as the cause of the man's death is overdetermined. The relevant type of luck at issue in Imminent Heart Attack is thus environmental luck. Since, according to Pritchard, understanding is compatible with this type of luck we may expect PU to predict that Zoe understands why the man died.

We thus have two cases in which an agent's belief why  $p$  is afflicted by environmental luck that generate opposite intuitions concerning whether the agent understands why  $p$ . One might be inclined to think that this shows that intuitions about such cases are too unstable to provide solid data for theorising about understanding. If this is correct, the fact that VK-UK cannot accommodate the intuition of lack of understanding in Fake Firefighters might not carry any significant weight against the view. While I think this might eventually be the lesson to be learned from these cases, I am also convinced that, at this stage, it would be premature to draw this conclusion. The reason for this is that there is a structural difference between Fake Firefighters and Imminent Heart Attack, *viz.* that in Fake Firefighters Ernie's understanding is ultimately grounded in knowledge. After all, in Fake Firefighters, Ernie acquires his belief why the house is on fire from the firefighter, who in turn himself

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<sup>5</sup>For a similar case see Grimm (2006).

knows why the house is on fire. In other words, Ernie acquires his understanding from a knowledgeable source. The same is not true in *Imminent Heart Attack*. Here Zoe acquires her belief why the man died first-hand, as it were. However, her belief does not qualify as knowledge and so is not grounded in knowledge in the way Ernie's belief is.

The crucial question now is how we can exploit this difference between the two cases in order to offer an alternative account of understanding why that accommodates all the relevant intuitions. While I believe that there is more than one way of achieving this, I would here like to focus on one particular way, which takes its lead from my account of objectual understanding.

## 4.2 *The Alternative Account*

I will begin by briefly rehearsing my proposed account of objectual understanding (call it 'KOU'). KOU places the following two principles linking knowledge and understanding centre stage:

U-Max. If one knows everything there is to know about *X*, then one also understands everything there is to understand about *X*.

U-Min. If one does not know anything about *X*, then one does not understand anything about *X* either.

While U-Max states that fully comprehensive knowledge is sufficient for maximal understanding, U-Min holds that at least some knowledge is necessary for minimal understanding. The further proposal is that no knowledge and fully comprehensive knowledge constitute the extremities of a spectrum. In between lie the various degrees of understanding. The quality of one's understanding of *X* can be measured in terms of approximation to fully comprehensive knowledge about *X*.

This account of degrees of understanding is coupled with a contextualist semantics for outright attributions of understanding. The crucial thesis here is that attributions of understanding are task-relative in the following sense:

U-Out. An outright attribution of understanding of *X* is true just in case one knows enough about *X* to (likely) successfully perform a contextually determined task or range of tasks.

Task-relativity is the crucial aspect of KOU that I would like to use to provide an account of understanding why. I would like to begin with what I take to be an independently plausible suggestion, *viz.* that the relevant task for understanding why *p* consists in being able to give an explanation of why *p*.<sup>6</sup>

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<sup>6</sup>I think that, ultimately, attributions of understanding why afford a contextualist semantics. Accordingly, a more precise version of this account would state that the task relevant to attributions of understanding why *p* consists in being able to give an explanation of why *p* that meets the explanatory demands at issue in the context of attribution. However, since for the purposes of this paper, there is no need to address the issue of contextualism about attributions of understanding, I will work with the simpler, non-contextualist version.

Next, I would first like to introduce the notion of a well-founded explanation:

WF. An explanation of  $p$  is well-founded if it is ultimately grounded in knowledge why  $p$ , that is to say, if it is grounded in a warrant why  $p$  that originates from a knowledgeable source, i.e. from a source that knows why  $p$ .

Again, there are various ways in which one might connect these two ideas. The one I want to suggest here connects very straightforwardly with U-Out:

U-Why. One understands why  $p$  just in case one knows enough to ensure (or make highly likely) that one would provide a well-founded explanation of why  $p$ .<sup>7</sup>

U-Why allows us to accommodate the intuitions in both Fake Firefighters and Imminent Heart Attack. To see this, notice first that, in Fake Firefighters, the explanation that the house burned down because of faulty wiring would be well-founded in the relevant sense if offered by Ernie. After all, Ernie has a warrant that the house burned down because of faulty wiring that originates from the fireman who knows why the house burned down. The question remains whether Ernie knows enough to ensure that he would provide this explanation. There is reason to think that the answer is 'yes'. True, Ernie doesn't know why the house is on fire (or so we are for now assuming). However, he does know a number of relevant facts, including that his house burned down, that he has been told that by a source he has no reason to distrust that it burned down because of faulty wiring, that this explanation is the most plausible one to him at this time and that he believes the explanation to be correct. Plausibly, Ernie's knowing these facts will ensure (or make highly likely) that Ernie would provide the relevant explanation of why his house burned down. Accordingly, U-Why can accommodate the intuition that Ernie understands why his house burned down.

At the same time, U-Why can also accommodate the intuition that, in Imminent Heart Attack, Zoe does not understand why the man died. Zoe does not herself know why the man died. At the same time, she herself is the original source of her warrant. As a result, Zoe's warrant why the man dies does not originate from a knowledgeable source. Hence she fails the well-foundedness requirement of U-Why.

It may be worth noting that U-Why also accommodates intuitions in a number of further cases. Consider the following two cases:

*Ernie's Wife.* Ernie phones his wife and tells her that their house burned down because of faulty wiring.

*Fake Firefighters 2.* Bert has also arrived at Ernie's house but hasn't talked to Ernie yet. He approaches a fake firefighter and asks him why the house is on fire. Making up an explanation on the spot the fake firefighter tells Bert that the house burned down because of faulty wiring.

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<sup>7</sup>Notice that once one goes contextualist about attributions of understanding why  $p$  there are a number of ways in which one could accommodate WF in one's semantics. Most importantly, one could make WF part of the contextually determined explanatory demands. This would leave open the possibility of there being contexts in which the attributions of understanding are true even though the explanation the agent would provide is does not satisfy the well-foundedness requirement.

Intuitively, Ernie's wife comes to understand why the house burned down. U-Why can accommodate this intuition. After all, she will be in a similar epistemic position as Ernie (the main difference being that Ernie's wife knows that the house burned down on the basis of testimony rather than perception) and so knows enough to ensure (or make highly likely) that she would give the same explanation as Ernie. At the same time this explanation is well-founded as her warrant for why the house burned down originates from a knowledgeable source, i.e. the fireman.

As opposed to that, intuitively, Bert does not understand why the house burned down. Although he would give the same explanation as Ernie and his wife, in Bert's mouth this explanation is not well-founded. After all, the fake firefighter who offered it made it up on the spot and so Bert's warrant does not originate from a knowledgeable source.

## 5 Conclusion

We have seen that there are at least two of ways in which champions of VK-UK can resist Pritchard's argument. First, they can accept that agents in cases like Fake Barns have knowledge and offer an explanation of why we should mistakenly generate an intuition of ignorance in terms of the safety heuristic. The resulting view is preferable to Pritchard's alternative due to the extensive gains in simplicity, elegance and uniformity in explanation it offers. Second, even those champions of VK-UK who do not want to accept the counterintuitive consequence need not be moved by Pritchard's argument. An alternative account of understanding why—*viz.* U-Why—is available to them. This account is arguably preferable to Pritchard's because it accommodates the intuition not only in Fake Firefighters but also in Imminent Heart Attack, a case Pritchard is bound to struggle with. Pritchard's argument against VK-UK thus fails. Those philosophers of science who are attracted by UK need not be worried by Pritchard's attack against their preferred view. On the contrary they can plausibly extend their allegiances to VK. In this way, they will get the very appealing VK-UK package deal, which offers simple, elegant and unified accounts of both understanding and knowledge.

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