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A CRITICAL EXAMINATION OF UNDERSTANDING'S CHARACTERISTICS: WHY, IN A
SENSE, UNDERSTANDING IS UNIQUE

A Thesis
presented in partial fulfillment of requirements
for the degree of Master of Arts
in the Department of Philosophy
The University of Mississippi

by
CHRISTOPHER BECKER

MAY 2018

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ABSTRACT

Is understanding a unique kind of epistemic state or simply another word for knowledge? Recently, there is a dispute in the literature between those, non-reductionists, who argue that we cannot reduce understanding to knowledge. Sliwa and Khalifa, two reductionists, on the other hand, argue that understanding is basically just another word for knowledge (if we are fairly comparing the two). After considering the dialectic between non-reductionists and reductionists, undogmatically, I argue that Sliwa's arguments in favor of reductionism fail. Sliwa's analytical argument in defense of reductionism is unsuccessful because a special kind of understanding, *subjective understanding*, can be independent of knowledge. And, Sliwa's background argument in defense of reductionism fails because there can be epistemic asymmetries in skeptical scenarios. So, my thesis is that understanding is not necessarily reducible to knowledge. After all, a certain kind of understanding, subjective understanding, is both non-factive and compatible with certain kinds of epistemic luck, unlike knowledge. Understanding, in a sense, is unique.

DEDICATION

This thesis is dedicated to my family, friends, and beautiful girlfriend. I love you all and cannot put into words how much I value our relationship. Out of love, gratitude, and appreciation, this thesis is dedicated to you.

ACKNOWLEDGMENTS

I would like to thank all of my professors from Bloomsburg University and the University of Mississippi for teaching me philosophy. In particular, I would like to thank Steven Hales, Gary Hardcastle, Kurt Smith, and Scott Lowe. Also, I would like to express my gratitude to Robert Westmoreland and Donovan Wishon for their helpful guidance on this thesis. Nobody has provided more help on this work though than Robert Barnard. Dr. Barnard, thank you so much for all of your time and effort in guiding me through this process. Sincerely, I appreciate all of your help.

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I. INTRODUCTION

Is understanding x simply a kind of knowing x ? There is a dispute in the literature between those, Kvanvig, Elgin, Grimm, Hills, and Prichard, who deny that understanding is a type of knowledge and others, Sliwa and Khalifa, who argue that understanding simply is a kind of knowledge.¹ Roughly, understanding is a unique sort of epistemic state, according to non-reductionists, because understanding and knowledge differ in regard to their object or connection to the facts, grasping, luck, or testimony. Reductionists, on the other hand, deny that understanding is a unique kind of epistemic state. Any and all talk of understanding's object or understanding's relationship to the facts, grasping, luck, or testimony, according to reductionists, should be understood in terms of knowledge. Nonetheless, in this case, I think that a full-scale reduction of understanding to knowledge is a mistake. In fact, as I shall argue, *understanding is not necessarily reducible to knowledge*. After all, subjective understanding can be distinct from knowledge and is compatible with epistemic luck. Understanding, in a sense, is unique.

¹ Since Kvanvig, Elgin, Grimm, Hills, and Prichard, deny that understanding is a type of knowledge and doubt that understanding can be reduced to knowledge, consequently, I shall refer to this position, these philosophers, as *non-reductionism*. On the other hand, let us refer to Sliwa and Khalifa's position as *UK* (understanding is knowledge) or *reductionism*. For both Sliwa and Khalifa think that understanding is a kind of knowledge and that it is possible to reduce knowledge to understanding.

II. UNDERSTANDING'S CHARACTERISTICS

Regardless if one affirms or denies that understanding is a kind of knowledge, one's judgment often results from considering *understanding's characteristics*. By understanding's characteristics I mean nothing but the features we will use to assess the claim that understanding is reducible to knowledge. Although not an exhaustive list, for our purposes the following constitutes understanding's characteristics:

- OBJECT (Are propositions the only object of understanding?)
- FACTIVITY (Is understanding necessarily factive?)
- GRASPING (Does grasping afford us with unique cognitive abilities or a distinct sort of cognitive phenomenology?)
- LUCK (Is understanding compatible with epistemic luck?)
- TESTIMONY (Can one gain understanding through testimony?)

To elaborate, the following are sorts of questions or topics of analysis centered on understanding's characteristics. First, what is understanding's object? Is understanding's object always propositional like knowledge? Secondly, what sort of relationship holds between understanding and the facts? Is understanding necessarily factive like knowledge? Pretheoretically, understanding is often associated with "grasping." So, thirdly, many have attempted to clarify understanding's metaphorical grasping either by appeal to the unique cognitive abilities understanding affords or by pointing to understanding's distinct cognitive phenomenology.

Cognitive phenomenology, by the way, is the idea that our thought, thickly conceived so as to include judging, doubting, knowing, understanding, etc., phenomenally differs from sensory or emotional phenomenon.² Also, many have wondered if understanding, like knowledge, is incompatible with certain kinds of epistemic luck. And, lastly, there has been some discussion about understanding's relationship to testimony. Unless one is a skeptic of some sort, most agree that knowledge can be attained via testimony. But, it is not clear if understanding can be attained by testimony, for testimony may be too passive.

Importantly, how one views understanding's characteristics determines which side of this local non-reductionist vs reductionist divide one stands. After all, according to the standard conception of knowledge, knowledge's object is propositional, necessarily, knowledge is factive, knowledge is incompatible with certain kinds of epistemic luck, and testimony can be a source of knowledge. So, then, if understanding's object is propositional, understanding is necessarily factive, understanding is not compatible with certain kinds of epistemic luck, and testimony can be a source of knowledge, reductionism seems to be correct. If, however, it is false that understanding's object is always propositional, or provided that understanding is contingently factive, or if understanding is consistent with certain kinds of epistemic luck or granted that it is impossible for testimony to be a source of understanding, non-reductionism seems to be right.

² Montague, Michelle. *Cognitive Phenomenology*. Chapter 14: "Cognitive Phenomenology," *Macmillan*, Edited by Tim Bayne and Michelle Montague (2013) pp: 297-236. As an example, the phenomenon of touching a hot stove differs from understanding why knowledge is not merely justified true belief.

III. THE CASE FOR NON-REDUCTIONISM

Let us begin looking at the case for non-reductionism by examining a common non-reductionist conception of understanding's object. Standardly, propositions are taken to be the object of knowledge. If, however, understanding's object is not propositional, then, it is false that understanding is a form of knowledge. All non-reductionists think that understanding's object can be propositional. Some non-reductionists, however, doubt the categorical claim that understanding's object must be propositional.

For, according to Kvanvig and Elgin, sometimes understanding is *objectual*. When, then, understanding is objectual, the object of understanding is a topic or subject matter. For example, Elgin considers one's objectual understanding of chemistry. According to Elgin, one's objectual understanding of Chemistry is *partly* composed of known 'why' propositions. In addition to known 'why' propositions, Elgin says that objectual understanding is also holistic and requires a grasping of a given methodology, rules for acceptability, or even seeing how one's epistemic commitments cohere. From this prior objectual understanding, then, propositional understanding can arise. For, as Elgin notes, "propositional understanding is derivative from objectual understanding."³ Since one's grasp of a given methodology or rules for acceptability of a given topic vary, "objectual understanding comes in degrees."⁴ Let us represent the difference, then, between objectual and propositional understanding, as Elgin sees it, as follows:

³ Elgin, Catherine. "Epistemic Virtues in Understanding." *Routledge Handbook of Virtue Epistemology*, ed. Heather Battaly. London: Routledge, forthcoming.

⁴ Elgin, Catherine. "Epistemic Virtues in Understanding." *Routledge Handbook of Virtue Epistemology*, ed. Heather Battaly. London: Routledge, forthcoming.

Objectual Understanding

S understands t , where S denotes a subject or epistemic agent and t signifies a topic.

Propositional Understanding

S understands that p is q , where S denotes a subject or epistemic agent while p and q both represent propositions.

So, some non-reductionists, Kvanvig and Elgin, think that understanding is independent or conceptually distinct from knowledge because sometimes understanding's object is a topic, unlike knowledge. Secondly, non-reductionists, such as Elgin and Grimm, doubt that understanding is reducible to knowledge because understanding stands in a distinct relationship to the facts. After all, nearly all philosophers agree that knowledge is strictly factive. Necessarily, if one knows that p , p must be true. According to Elgin, denying that the sciences exemplify understandings would be unreasonable. So, as Elgin sees it, an objectual understanding of the sciences is often factive. However, Elgin does not think this fact implies *every* part of science is factive. For sometimes scientists use *felicitous falsehoods*. Roughly, felicitous falsehoods are idealizations which exemplify important phenomena although, strictly speaking, they are false or not truth apt. In Elgin's words:

To deny that the sciences embody understandings of their subject matters would be unreasonable. But scientific disciplines regularly and unblushingly use models and idealizations that are known not to be true. They invoke harmonic oscillators, ideal gases, infinite populations, and so forth. Such strategies are not mere heuristics or shorthands. They are currently ineliminable. Moreover, although scientists anticipate that current models and idealizations will be replaced by better ones, they do not expect and do not desire to eliminate such devices altogether. Because the devices provide good ways to represent complex phenomena, because they highlight factors that matter and marginalize factors that do not, even an ideal science would deploy them. I have labeled such devices felicitous falsehoods. They are felicitous in that they exemplify important factors that they share with the phenomena they concern in an epistemically tractable way. Nonetheless, because they streamline, simplify, amplify and omit, they are

strictly false of (if not truth-apt) inaccurate representations of their objects.⁵ Let us start by looking at scientific idealizations. These are both central and ineliminable. We understand the behavior of actual gases by reference to the alleged behavior of a so-called ideal gas. There is no such gas. So how can it figure in our understanding of the world? I suggest that effective idealizations are felicitous falsehoods. That they are false is evident. They are felicitous in that they afford epistemic access to matters of fact that are otherwise difficult or impossible to discern. Idealizations are fictions expressly designed to highlight subtle matters of fact. They do so by exemplifying features they share with the facts.⁶

So, Elgin thinks that sometimes understanding is not factive. Scientists, after all, sometimes deploy idealizations, a kind of appropriate falsehood. But although felicitous falsehoods can increase our understanding, strictly speaking, they are non-factive (even though felicitous falsehoods help exemplify matters of fact). But, necessarily, knowledge is factive. So, according to Elgin, then, although felicitous falsehoods can increase our understanding of a subject, speaking strictly, they cannot increase our knowledge. Therefore, even if some cases of understanding are factive, it is not necessary that understanding *x* is factive.

However, Elgin is not the only epistemologist who thinks that understanding is contingently factive. For, according to Grimm, there are two types of understanding, *objective understanding* and *subjective understanding*. As Grimm sees it, although objective understanding is necessarily factive, subjective understanding is not. After critically evaluating Linda Zagzebski's claim that understanding is always transparent but finding a grain of truth in Zagzebski's statement, Grimm describes this distinction in the following way:

Building on these ideas, what therefore seems *not* to be transparent to the mind is whether one has achieved what we might call an *objecting understanding* of how the world works; in other words, what is not transparent is whether one's mental

⁵ Elgin, Catherine. "Epistemic Virtues in Understanding." Routledge Handbook of Virtue Epistemology, ed. Heather Battaly. London: Routledge, forthcoming.

⁶ Catherine Elgin. "Is Understanding Factive?" - 2009 -In Adrian Haddock, Alan Millar & Duncan Pritchard (eds.), *Epistemic Value*. Oxford: Oxford University Press. pp. 322-30

model of the world is accurate. What arguably is transparent, however, is whether one has achieved what we might call a *subjective understanding* of how the world works—that is, whether one has grasped a model of how the world works that “makes sense” to the person doing the grasping. Subjective understanding, moreover, seems to have two distinct aspects. To begin with, there is the aspect of successfully grasping how the model works—that is, of being able to identify how the various elements described by the model are supposed to depend upon, and relate to, one another. This is the element of understanding we have emphasized so far. In addition, however, there also seems to be an aspect according to which the model “makes the best sense” of one’s experience, in that it strikes one as the likeliest model, given one’s experience. The two aspects are capable of coming apart, moreover, from both directions: both because one can grasp a model which one does not take to be true, as well as because one can take a model to be true even though one does not grasp “how it works.”⁷

According to Grimm, then, both objective and subjective understanding entails grasping a model of how the world works. In order to have objectual understanding, however, one’s mental model of how the world works must be accurate. Presumably, then, objective understanding implies that one’s subjective model of the world corresponds to the totality of facts and that one grasps the dependency or explanatory relations between this accurate model’s parts.

Subjective understanding, in contrast, need not involve accurate models. Rather, according to Grimm, subjective understanding contains two aspects, which can be independent of one another. First off, according to Grimm, subjective understanding involves grasping the elements of a model or theory and how such elements depend upon or are connected to one another. Secondly, as Grimm sees it, subjective understanding entails “grasping” how a model “makes the best sense of our experience.” In explanatory terms, Grimm thinks that subjective understanding consists in seeing that a given model is the best explanation for one’s experiences or phenomena.⁸ Formally, let us represent objective and subjective understanding as follows:

⁷ Grimm, Stephen. “The Value of Understanding.” *Philosophy Compass*, 7/2, (2012), pp: 103-117

⁸ Phenomenologically speaking, Grimm thinks that subjective understanding is similar to experiencing a mental orgasm or, more appropriately, subjective understanding is analogous to a sort of aha! experience. Grimm,

Objective Understanding:

S grasps t and t accurately represents the world, where S denotes a subject or epistemic agent, t signifies a theory, and grasping represents seeing the dependency relations between distinct parts of a given theory.

Subjective Understanding:

S grasps or sees how t works (independently of whether t accurately represents the world), where S denotes a subject or epistemic agent, t signifies a theory, and grasping represents seeing the dependency relations between distinct parts of a given theory

Or

S grasps that t is the best explanation or S sees that t makes the best sense out of their experiences (independently of whether t accurately represents the world), where S denotes a subject or epistemic agent, t signifies a theory, and grasping represents seeing the dependency relations between distinct parts of a given theory

So, then, when one grasps the interrelated parts of a model or if one sees that a model best explains one's experiences, subjective understanding occurs. But whether or not this subjective grasping or seeing, a sort of inference to the best explanation, actually mirrors reality is independent of the subjective sort of understanding it affords. Therefore, if non-factive subjective understanding is possible and knowledge must be factive, then subjective understanding is not a form of knowledge.

As mentioned, in addition to examining understanding's object and understanding's relationship to the facts, there has been much discussion about the grasping component of understanding. In "Understanding Why," Alison Hills, a non-reductionist, offers a comprehensive account of grasping 'why' propositions. According to Hills, grasping a why proposition is constituted by a set of practical abilities, a sort of cognitive control over

Stephen. "The Value of Understanding." (109). For Gopnik's original exposition of the mental orgasm see Gopnik, Alison. "Explanation as Orgasm." *Minds and Machines* 8 (1998): 101-118.

explanations and reasons. In Hill's words:

If you understand why p, you believe that p... And you also have a view as to why p, that is, the explanation or reason why p... The best way of thinking of it (cognitive control) is by an analogy with grasping a ball or cup of tea. If you grasp a ball, you have it under your control. You can manipulate it, move it, turn it around, and so on, that is you (normally) have a set of practical abilities or practical know how, which you can exercise if you choose... If you understand why p (and q is why p), then you believe that p and that q is why p and in the right sort of circumstances you can successfully:

- (i) Follow some explanation of why p given by someone else.
- (ii) Explain why p in your own words.
- (iii) Draw the conclusion that p (or that probably p) from the information that q.
- (iv) Draw the conclusion that p' (or that probably p') from the information that q' (where p' and q' are similar to but not identical to p and q).
- (v) Given the information that p, give the right explanation, q.
- (vi) Given the information that p, give the right explanation q.⁹

Hills' conception of understanding why, then, is the view that understanding why p is constituted by *practical abilities*. Moreover, these practical abilities, aka, cognitive control allow us to make *inferences* and answer *novel questions*.¹⁰ Since Hills takes understanding of this sort to be factive,¹¹ Hill's provides a substantive conception of grasping.

Most epistemologists agree that Gettier and fake barn cases show that sometimes bad epistemic luck precludes knowledge. According to some epistemologists, however,

⁹ Hills, Alison. "Understanding Why." *Nous*, Vol. 50, No. 4, (2016), pp: 661-688

¹⁰ Because one's ability to make inferences and answer novel questions can come in degrees, one's cognitive control, grasping, and so understanding, can come in degrees as well. As Hills puts it, "You can be better or worse at making judgments about related cases. Since these constituents of understanding why come in degrees, it is tempting to think that understanding why p comes in degrees too." (665) Or, as Hills writes on (667), "Cognitive control comes in degrees; you can be better or worse at following explanations, drawing conclusions, or giving your own explanations of similar cases, and so on."

¹¹ As Hills puts it, "You cannot understand why p if p isn't true, or if your belief as to why p is mistaken. So, understanding why is factive (it is also not transparent: you can have more or less understanding than you think). (663).

understanding is consistent with bad epistemic luck. Hills describes the following as a case where bad environmental luck precludes knowledge but not understanding:

Suppose that your history class have all been given very inaccurate textbooks, except for you. You read in your textbook some details about Napoleon's career, that he was well-organized, tactically astute and ruthless, and on that basis, you draw the conclusion that he was a great military leader. You are completely right and you are able to explain why he was a great leader. And you can explain why similar figures (Wellington and Marlborough for instance) were also very good commanders.

According to Hills and other non-reductionists, you would lack knowledge because although your true belief resulted from a reliable source, your source could have easily been unreliable (after all, everyone else in your class was given an inaccurate textbook, you just got lucky). For Hills, you would still understand why Napoleon was a great military leader because you have cognitive control, i.e, you could explain why other similar leaders (Wellington for instance) were great leaders. For Prichard, another non-reductionist, you would have understanding because your true belief was formed in the right way. And, according to Kvanvig, you would understand why Napoleon was a great leader because you transparently grasp the reasons why he was a great leader. Therefore, according to these non-reductionists, cases of environmental luck show that sometimes understanding is independent of knowledge, and so, understanding is not reducible to knowledge.

Most epistemologists believe that, under the right conditions, one can gain knowledge via testimony. Even if one receives truthful testimony through a trustworthy source, some non-reductionists are skeptical that one can gain understanding by virtue of testimony. One example aimed to motivate this position comes from Prichard's faulty wiring case. Prichard describes this scenario as follows:

Suppose that I understand why my house burned down, know why it burned

down, and also know that it burned down because of faulty wiring. Imagine further that my young son asks me why his house burned down and I tell him. He has no conception of how faulty wiring might cause a fire, so we could hardly imagine that merely knowing this much suffices to afford him understanding of why his house burned down. Nevertheless, he surely does know that his house burned down because of faulty wiring, and thus also knows why his house burned down.¹²

According to Prichard, this case exemplifies a situation where somebody (in this case a young son) possesses knowledge yet lacks understanding. Although explanation for why this is the case varies, for example, one might just say we intuitively see that the young child lacks understanding, or Hills would say that the young child lacks cognitive control, such cases aim to represent the intuition that understanding requires more than mere parroting of propositional knowledge.

So, then, we have seen a brief survey of a few non-reductionist accounts of understanding's characteristics. First, we have seen Kvanvig and Elgin argue that understanding's object is not necessarily propositional since understanding's object is subject or theories. Secondly, we saw it argued that understanding is merely contingently factive since sometimes understanding is subjective and felicitous falsehoods help improve our understanding. Thirdly, we discussed Hill's comprehensive account of grasping. According to this account grasping denotes a set of practical abilities centered on explanations, information manipulation, and answering novel questions. Fourthly, we have looked at understanding's relationship to luck. As we have seen, some epistemologists argue that understanding is consistent with cases of bad epistemic luck. And, lastly, we discussed understanding's relationship to testimony. In short, a few epistemologists have argued that it is possible to receive knowledge via testimony but not

¹² Prichard, Duncan (2009). Knowledge, Understanding and Epistemic Value. Royal Institute of Philosophy Supplement 84 (64): 19-43.

understanding.

The reason I mention these points again is because understanding conceived as such implies that understanding denotes an epistemic state separate from knowledge. For if knowledge's object is exhausted by propositions yet understanding's object is subjects or theories, understanding is not reducible to knowledge. Similarly, if knowledge is necessarily factive yet understanding is merely contingently factive, these two epistemic states are distinct. And provided that understanding's grasping cannot be explained by knowledge, understanding cannot be reduced to knowledge. Likewise, if understanding is consistent with bad epistemic luck but knowledge is not and it is possible to receive knowledge via testimony but not understanding, it follows that understanding is not reducible to knowledge.

IV. THE CASE FOR REDUCTIONISM

Although the position that understanding and knowledge signify different epistemic states seems to be the more popular position amongst epistemologists, according to Kareem Khalifa and Paulina Sliwa, understanding is just another word for knowledge. As, if hedonists are correct, pleasure and good are two terms denoting the same concept, similarly, reductionists maintain that understanding and knowledge signify the same epistemic state. For provided hedonism is correct, pleasure is necessary and sufficient for goodness. Likewise, according to *reductionists*, knowledge is necessary and sufficient for understanding provided we are abiding by the fair comparison requirement, which will be discussed below.

Although this epistemic reductionist position is the less popular position in this conversation, reductionists present powerful arguments in defense of their view. Because reductionists present powerful arguments in defense of their view and since reductionism is a simpler theory, consequently, in the next section I will attempt to reconstruct how reductionists have explained understanding's characteristics in terms of knowledge. Importantly, although Khalifa is also a proponent of reductionism, in our discussion about the case for reductionism I will primarily use Sliwa's arguments as a representation of their view.

According to reductionists, necessarily, the object of understanding is propositional. The object of understanding must be propositional, reductionists claim, because the object of knowledge is always propositional and anyone participating in the reductionist conversation must abide by the *fair comparison requirement*.¹³ The fair comparison requirement, a sort of methodological move by reductionists, can be represented as follows:

Fair Comparison Requirement

Anytime one considers the reducibility of understanding to knowledge, one must compare corresponding cases of understanding and knowledge.

We honor this rule, for example, when we compare the possible reduction of understanding why *p* to knowing why *p*. Therefore, according to reductionists, the object of understanding must be propositional since the object of knowledge is propositional and fairness demands that we compare corresponding cases of understanding to knowledge if we are evaluating the possible reduction of understanding to knowledge.

Unlike Elgin and Grimm, Sliwa takes there to be a necessary relationship between understanding and the facts. Understanding, according to Sliwa, is necessarily factive since understanding requires knowledge. For Sliwa writes the following, “Others (Elgin) have argued that understanding does not require knowledge on the grounds that understanding is not factive. The argument that follows addresses this view too.”¹⁴ The argument Sliwa is referring to is her semantic argument used to deflate luck-based cases aimed to motivate non-reductionism. Since Sliwa’s semantic argument is primarily aimed at deflating luck-based cases aimed to motivate

¹³ Sliwa, Paulina. “Understanding and Knowledge.” *Proceedings of the Aristotelian Society* 115 pp: 57-74. Khalifa, Kareem. “Is Understanding Explanatory or Objectual?” *Synthese*, Vol. 190, (2013), pp: 1153-1171.

¹⁴ Sliwa, Paulina. “Understanding and Knowledge.” *Proceedings of the Aristotelian Society* 115 pp: 57-74

non-reductionism, let us return to this line of reasoning in context, so section (3.4).

In contrast to Hills who offers a substantive account of grasping, viz., cognitive control, Sliwa takes her reductionism to deflate understanding's "grasping" component. In Sliwa's words:

One advantage of reductionism is that it gives us a parsimonious account of understanding. It does not postulate a novel cognitive attitude to a proposition ("grasping), nor does it require us to introduce a novel epistemic attitude with an altogether different kind of object (a modal relationship, for instance). In contrast, the non-reductionist incurs a very substantial task of giving a positive account of what "grasping" a proposition is. Without such a positive account, the imagery of "grasping" a proposition may well be suggestive. But its explanatory benefits are at best unclear.¹⁵

According to Sliwa, in other words, the principle of parsimony or simplicity favors a deflationary account of grasping. Although the notion of grasping may attract attention, this flashy concept does not denote any epistemic concept with explanatory power. So, Sliwa thinks that it is actually a burden for non-reductionists to explicate grasping, whether in terms of abilities, object, or phenomenology.

As we have seen, some non-reductionists argue that understanding is compatible with cases of environmental luck. Knowledge is not necessary for understanding if it is truly the case that understanding is compatible with cases of environmental luck. According to Sliwa, however, it is false that understanding is compatible with environmental luck. Understanding, like knowledge, is not compatible with environmental luck, as Sliwa sees it, because *any sentence of the form "I understand why P, but I do not know why P," seem infelicitous*¹⁶ and the reason all

¹⁵ Sliwa, Paulina. "Understanding and Knowledge." *Proceedings of the Aristotelian Society* 115 pp: 57-74.

¹⁶ One such concrete example put forth by Sliwa, to the dismay of Soviet sympathizers is, "I understand why Stalin was evil but I don't know why Stalin was evil." Ibid.

*sentences of this form seem infelicitous is because they are contradictory.*¹⁷ As Sliwa sees it, then, in cases of environmental luck subjects either understand and know a given proposition or lack both knowledge and understanding. This is an important move by Sliwa and later on I will challenge this argument.

Previously, we looked at Prichard's faulty wiring example. Prichard and other non-reductionists take this particular case and similar cases to show that knowledge is not sufficient for understanding. Testimonial cases, after all, allegedly, represent scenarios where one can possess knowledge yet lack understanding. Which, if true, entails that non-reductionism is mistaken. For, then, there would be cases where knowledge and understanding are independent.

According to Sliwa, however, testimonial cases such as Prichard's faulty wiring cases do not justify non-reductionism. Sliwa agrees that in such cases there does seem to be a relevant *epistemic asymmetry*. Sliwa, however, denies that the best explanation for the epistemic asymmetry in such a case is that the parent is in a state of understanding while the child merely knows. Rather than positing a distinct sort of epistemic state, according to Sliwa, a simpler and better explanation merely requires acknowledging differing amounts of *background knowledge* between parent and child.¹⁸

So, as Sliwa notes, prior to the fire chief's testimony, the parent and child's background knowledge, concerning fires and faulty wiring, vastly differs.¹⁹ Whereas, presumably, the parent

¹⁷ Or as Sliwa puts it, "This suggests that the defect here is semantic: the reason why these sentences sound infelicitous is that they are contradictory. This is because understanding *entails* knowing." Ibid. As an analogy, one may argue knowledge entails true belief because the best explanation for why it seems inappropriate to say, "I know p but I do not have a true belief about p," is because knowledge entails true belief.

¹⁸ To frame this debate in causal terms, many non-reductionists take understanding to *produce* the epistemic asymmetry (the parent both understands and knows why their house burnt down, while the child merely knows why it burnt down). Whereas, on the other hand, Sliwa believes this epistemic asymmetry *results* from the parent possessing more background knowledge (8).

¹⁹ Ibid.

knows many different causes of fires, such as faulty wiring, a careless smoker, or arson the child, in contrast may merely know fires are only caused by a candle getting knocked over. Because the parent and child's background knowledge differ prior to the fire, it should not be surprising their epistemic positions appear asymmetrical. For after receiving reliable testimony about the fire, the parent and child differ in what they learn about the fire. The parent and child, for example, differ in what epistemic possibilities the fire's causes, so described, excludes. In Sliwa's words:

Since father and son differ in what they know prior to learning that the house burned down because of faulty wiring, they also differ in what they learn when they both come to know that the house burned down because of faulty wiring. For one, they differ in which possibilities this information allows them to exclude... Second, they differ in which epistemic possibilities are left open for them: the parent may still wonder whether the faulty wiring in question was a matter of a broken fuse or frayed cable insulation.²⁰

Despite initial appearances, then, although it seems the epistemic asymmetry between parent and child *must* be explained by a difference of epistemic states, as the non-reductionist claims, Sliwa denies this is the case. For, according to Sliwa, the best explanation for apparent cases of epistemic asymmetry is that the child and parent's background knowledge differ. In such cases, then, Sliwa thinks that the child possesses both knowledge and understanding, like their parent. However, the parent simply has more background knowledge. Accordingly, as Sliwa sees it, thought experiments like Prichard's faulty wiring case fail to prove non-reductionism because testimonial cases of epistemic asymmetry are best explained by an appeal to background knowledge.

²⁰ Sliwa, Paulina. "Understanding and Knowledge." Proceedings of the Aristotelian Society 115 pp: 57-74

V. A CRITIQUE OF REDUCTIONISM

So, then, we have considered both non-reductionist and reductionist analyses of understanding's characteristics. As we have seen, non-reductionists doubt that understanding's characteristics can be described in terms of knowledge. Sliwa, our representative of reductionism, on the other hand, has argued that knowledge is necessary and sufficient for understanding by virtue of her analytic and background knowledge argument. So, contra non-reductionists, Sliwa thinks that all of understanding's characteristics can be described in terms of knowledge. In our next section, I will attempt to raise doubts regarding Sliwa's analytical and background knowledge arguments.

Some non-reductionists argue that understanding is not reducible to knowledge because understanding, unlike knowledge, is consistent with experiencing bad environmental luck and understanding is not necessarily factive. Sliwa, however, denies this is the case. Sliwa, as mentioned, provides a sort of analytical or semantical argument in defense of reductionism. Sliwa's reductionist counterargument, as I see it, can be represented as follows:

1. Any sentence of the form "I understand why P, but I do not know why P," seem infelicitous.
 2. The reason all sentences of this form seem infelicitous is because they are contradictory.
- C: So, knowledge is necessary for understanding.²¹

²¹ The form of Sliwa's analytical argument is similar to Moore's paradox of belief but different because Sliwa is attempting to illuminate a contradiction between a first person affirmation of understanding and denial of knowledge, while Moore's paradox of belief shows the paradox of an affirmation and a denial of belief.

Now, if knowledge is necessary for understanding, it is impossible for understanding to be compatible with cases of environmental luck and it is necessary that understanding be factive. After all, if knowledge is incompatible with cases of environmental luck yet understanding requires knowledge, then understanding cannot be consistent with such bad luck. Similarly, if knowledge is necessary for understanding and knowledge is always factive, necessarily, then, understanding is factive. So, if Sliwa's semantic argument is sound, the non-reductionists appeal to cases of bad environmental luck and the mere contingent factivity of understanding as reasons to suppose understanding is not reducible to knowledge seem in vain. Undogmatically, however, now I shall challenge the soundness of Sliwa's semantic argument.

Particularly, I hope to raise doubts regarding the first premise of Sliwa's analytical argument, *viz.*, any sentence of the form "I understand why p, but I do not know why p," seem infelicitous. Now, as mentioned, Grimm describes two types of understanding, objective and subjective. If the only type of understanding was objective, intuitively, I would agree with Sliwa. Subjective understanding, however, seems to pose a problem for Sliwa's first premise. After all, the following sentence form does not seem inappropriate or contradictory: "I subjectively understand why p, but I do not know why p."

To take a particular example, one can subjectively understand (in Grimm's sense) why they decided to pursue a certain career path yet, consistently, deny they know why they decided to pursue a certain career path. Imagine Billy majored in psychology and accounting. Although Billy is torn between working for an accounting firm, after graduation, or pursuing an advanced degree in psychology, Billy ultimately decides to work for an accounting firm after graduation. Moreover, when asked why he chose this path Billy answers that his decision was based upon

the intellectual exercise and financial security afforded by being an accountant. Given that intellectual exercise and financial security are, *prima facie*, good ends, and given Billy's commitment to an ends-means model of decision making, Billy subjectively understands why he chose to pursue accounting.

Nonetheless, Billy's commitment to an ends-means model of decision making as an indisputable psychological explanation is not or should not be dogmatic. Although Billy subjectively grasps his reasons for pursuing accounting, when asked, Billy also acknowledges that it is possible his decision was actually the result of fear, God's plan, external conditioning, self-interest, or neurons firing. Accordingly, because it is possible the actual explanation for Billy's action is different from his subjective explanation or understanding, Billy does not know why he chose to pursue accounting. Seemingly, however, Billy does subjectively understand why he chose this route. Consequently, then, I think that we should infer that Billy the Accountant is a case where, contra Sliwa's first premise of her semantic argument, one can possess subjective understanding yet lack knowledge. Yet this particular case merely represents a more general phenomenon, namely, any scenario where contrastive explanations preclude knowledge yet, subjectively, increase one's understanding or grasping.²²

So, it is not true that, analytically, all kinds of understanding depend upon knowledge. And so, then, Sliwa's semantic argument does not threaten non-reductionists appeal to the compatibility of understanding with bad environmental luck nor the non-reductionist appeal to the mere contingency of understanding's factivity. Since I have argued that we have some reason to doubt the soundness of Sliwa's semantic argument, let us now turn to Sliwa's

²² Other counter-examples involving subjective understanding but lacking knowledge include conspiracy theories in general, flat-earthers in particular, and alternative scientific theories (Aristotle's theory of gravity for example).

background knowledge argument.

Sliwa's background knowledge argument is a response to a common non-reductionist line of reasoning. Briefly, according to some non-reductionists, understanding is not reducible to knowledge because knowledge is not sufficient for understanding. Knowledge is not sufficient for understanding, as non-reductionists such as Prichard sees it, since testimonial cases, such as Prichard's faulty wiring case, exemplify scenarios where one receives knowledge via testimony yet lacks understanding. Sliwa, however, denies that Prichard's faulty wiring does, in fact, represent a case where one possesses knowledge yet lacks understanding.

For, according to Sliwa's background knowledge argument, non-reductionists falsely suppose that cases of epistemic asymmetry are best explained by an appeal to distinct epistemic states. A better explanation for cases of epistemic asymmetry, as Sliwa sees it, is that such epistemic asymmetries result from differing amounts of background knowledge. Since epistemic asymmetries are better explained by an appeal to background knowledge, Sliwa infers a) that knowledge is actually sufficient for understanding, contra the non-reductionists appeal to testimonial cases and b) this fact (that background knowledge is sufficient for understanding) also better explains cases of differing degrees of "understanding."

Although I think that Sliwa's background argument is ingenious, I also think that there is room to doubt the soundness of Sliwa's clever reductionist reasoning. Particularly, I am not sure about Sliwa's premise that background knowledge best explains cases of epistemic asymmetry. After all, *if background knowledge best explains cases of epistemic asymmetry, then, it is impossible for epistemic asymmetries to exist under skeptical scenarios*, the most extreme kind of bad environmental luck. For, by definition, there is no knowledge under skeptical scenarios and cases of environmental luck just are cases where knowledge is precluded. Yet, it is supposed

that background knowledge explains, that is, that background knowledge is prior to epistemic asymmetries. However, by virtue of *modus tollens*, *it is possible for epistemic asymmetries to exist under skeptical scenarios*. So, *background knowledge does not best explain cases of epistemic asymmetries*.

At first glance, it might not be apparent that it is possible for epistemic asymmetries to exist under skeptical scenarios. In ordinary circumstances, after all, parents, teachers, and experts tend to have more knowledge than children, students, and novices. Although it seems commonsensical to explain epistemic asymmetries by appeal to background knowledge, I think that it is possible for epistemic asymmetries to exist under skeptical scenarios since *conceivability often implies possibility and it is conceivable that epistemic asymmetries exist under skeptical scenarios*. *Prima facie*, then, it is possible for epistemic asymmetries to exist under skeptical scenarios. Which, if correct, implies that, contra Sliwa, background knowledge does not best explain cases of epistemic asymmetries.

Now, although many early modern philosophers took it as axiomatic that being able to conceive a given state of affairs guaranteed that this state of affairs was possible, contemporarily, however, many philosophers deny that conceivability always implies possibility. Just to take one example, Lois Lane can conceive of Clark Kent and Superman in two different locations at the same time yet this is impossible. Generalizing, then, any case of interesting identity can show that conceivability does not guarantee.

Nonetheless, it seems that our being able to conceive of a case is our best evidence that such a case is possible. If, however, one has contrary modal intuitions that is understandable. Yet since a comprehensive discussion of modality might lead us too far astray, for anyone who grants my weaker modal claim, i.e., that conceivability often implies possibility, let me now try to

motivate that we can conceive of epistemic asymmetries under skeptical scenarios.

Rather than brain in a vat or Cartesian Evil Demon style skepticism, the kind of skepticism I have in mind happens to be *contrastive underdetermination*. Contrastive underdetermination can be understood as synthesis of the pessimistic induction and Duhem or Bas Van Fraassen style underdetermination, two common skeptical positions from the philosophy of science. Roughly, contrastive underdetermination is the idea that although our best or most widely accepted scientific, moral, psychological or aesthetic theories may allow us to predict or explain a wide array of phenomenon or intuitions, it is possible that there are *alternative* theories (hence *contrastive* underdetermination) which can better explain the same phenomenon and maybe even more. To take a classic example, even at the time of their conception, Aristotelian and Newtonian physics were contrastively underdetermined by Einsteinian like relativity. Or, to take a psychological example, although the psychological egoist (out of self-interest of course) urges us to view all actions to be the result of self-interest, in contrast, one can doubt Hobbes suggestion by pointing to an alternative psychological explanation, i.e, that sometimes people act out of habit or empathetic altruistic motivation.

Regardless of the particular example, generally, I take contrastive underdetermination to motivate skepticism. After all, following the spirit of Kyle Stanford's particular kind of contrastive underdetermination, as represented in *Exceeding our Grasp*, it seems possible that even the best contemporary theories, scientific, moral, or aesthetic, may be underdetermined by better theories in the future.²³ For nearly all past theories have been discarded by later theories. Yet if our best theories are underdetermined by future theories, then, skepticism seems to result since we should not be certain or dogmatic about even our best scientific theories. So, contrastive

²³ Stanford, Kyle. *Exceeding Our Grasp*. New York: Oxford University Press, 2006. Print.

underdetermination seems to motivate skepticism.

For our present purposes it does not matter if contrastive underdetermination actually does imply some sort of skepticism or if there really is a substantive relationship between the two. For, currently, all we need is the weaker claim that contrastive underdetermination and skepticism are compatible. If, therefore, underdetermination of this sort and skepticism are compatible, it is possible for epistemic asymmetries to exist under skeptical scenarios. After all, in such a world, even scientific, moral, or aesthetic experts lack knowledge since their best theories are, strictly speaking, false as a result of underdetermination. Nonetheless, unless such a world would preclude expertise, presumably, epistemic asymmetries exist between these sorts of experts and non-experts for although the expert's theories are, strictly, false, their false beliefs are still justified.

Contra Sliwa, then, it seems that expertise and epistemic asymmetries need not depend upon knowledge or background knowledge. Although my intuition is that we face the threat of contrastive underdetermination in the actual world, in a possible world where contrastive underdetermination is a threat to our knowledge, epistemic asymmetries still exist.

Metaphorically, Sliwa's error is that she overlooks the possibility that a weaker epistemic state, *viz.*, justified false beliefs producing epistemic asymmetries. Accordingly, then, Sliwa's background knowledge argument is unsuccessful for background knowledge does not best explain cases of epistemic asymmetry.

VI. REVISITING UNDERSTANDING'S CHARACTERISTICS

So, then, we have gone over some different views of understanding's characteristics. Non-reductionists, on the one hand, have argued that understanding and knowledge are distinct epistemic states. Non-reductionists, after all, have argued that understanding is not propositional but rather takes a subject or theory as its object, understanding stands in a distinct relationship to the facts, luck, and testimony, and also that understanding's grasping component cannot be reduced to knowledge. Reductionists, such as Sliwa, however, have pushed back against this position. For, as Sliwa sees it, her analytical and background knowledge argument shows that knowledge is both necessary and sufficient for understanding, contra non-reductionists. In light of this dialectic and my critiques of Sliwa's analytical and background knowledge arguments, now I would like to consider the implications of our previous discussion on understanding's characteristics.

In regards to understanding's object, then, we have seen two views. On the one hand, some non-reductionists have argued that understanding's object is a subject matter or topic. While, on the other hand, reductionists have argued that, like knowledge, understanding's object is propositional. Although I am not certain which side is correct, since even Sliwa's explanation of understanding depends upon an appeal to background knowledge, apparently, all hands agree that a successful analysis of understanding requires an appeal to a system of some sort. Therefore, there is more common ground between reductionists and non-reductionists than thought.

A bigger disagreement arises, however, over where to locate this systematic feature of understanding. Building this systematic characteristic right into our concept of understanding, as non-reductionists often advocate, may be too quick. For perhaps objectual understanding, which is complex, is constituted by simpler propositional attitudes. Reductionists, however, seem to beg the question by their fair comparison requirement. After all, if the object of understanding can be a topic or subject matter, both of which are not entirely constituted by propositional attitudes, then we cannot fairly compare corresponding cases of understanding to knowledge because corresponding cases simply do not exist. But, if we cannot fairly compare corresponding cases of understanding to knowledge and ought implies can, then we should not abide by the fair comparison requirement. In other words, it seems that the fair comparison requirement is not always applicable if non-reductionists are correct that objectual understanding exists.

Nonetheless, I think that there is something to objectual understanding. After all, *science* used to denote basically the same idea as objectual understanding. But, nowadays, science denotes more of a methodology and domain specific content rather than a holistic set of epistemic commitments in any given domain of inquiry. So, I think that non-reductionists are correct that understanding is not necessarily propositional, for sometimes understanding's object is a topic. And, although propositions partially constitute this sort of understanding, it seems that methodological considerations and the holistic nature make objectual understanding go above and beyond a set of propositions. Therefore, understanding is not necessarily reducible to knowledge.

Towards understanding's connection to the facts, I shall be a bit more assertive. Now, I think that my critiques of Sliwa show that subjective understanding is not factive. After all, there is no contradiction in grasping an explanation, given some model, while keeping an open-mind

towards the model's truth or representational success. Previously, we considered Billy the Accountant as one such case. Billy subjectively understands why he performs certain actions. Billy, however, does not know why he performs certain actions because there are alternative psychological or physiological explanations for his actions. Similarly, many economic predictions exemplify such cases of subjective understanding. After all, many economic predictions depend upon assumptions such as perfect rationality or perfect competition between firms. However, nobody knows if such assumptions are correct.

If, however, all of our scientific, moral, or aesthetic theories are contrastively underdetermined by unconceived alternative theories of the future, Billy the accountant and economic predictions are but two particular examples of how we can subjectively understand propositions or subject matters independently of having the corresponding knowledge. After all, many people buy the idea that as time progresses, similarly, our best theories, whether scientific, moral, or aesthetic progress towards truth. For anyone who accepts this kind of progress (a common dogma of the enlightenment) or is sympathetic towards the pessimistic induction, should also accept that contrastive underdetermination precludes knowledge from even our best scientific, moral, or aesthetic theories. For, then, our current evidence is insufficient as a result of being underdetermined by these future unconceived alternative theories.

Even though contrastive underdetermination threatens our knowledge and our best theories claim to factivity, subjective understanding is compatible with this sort of underdetermination and skepticism. It is perfectly permissible and coherent, for example, to deny that one knows why lying is generally wrong while affirming that one subjectively understands

why lying is generally wrong.²⁴ Similarly, one can subjectively understand why free will is incompatible with determinism while refraining from dogmatically affirming the principle of alternative possibilities. So, then, subjective understanding is not necessarily factive and it is false that understanding, like knowledge, is necessarily factive. Therefore, contra the reductionists, it is not the case that understanding can be reduced to knowledge. Understanding and knowledge stand in different relationships to the facts.

Our previous discussion of grasping, in my view, is best understood as a disagreement over whether grasping should be viewed substantially or if we should deflate this fruitless concept. As we have seen Hills, a non-reductionist, offers a substantive description of grasping. For, according to Hills, grasping, aka, cognitive control, is constituted by a set of practical abilities: the ability to follow explanations, the ability to give explanations, the ability to answer novel questions, and an ability to make valid or probabilistic inferences. Also, as mentioned, Hills takes understanding to be factive. So, then, according to Hills, grasping is constituted by the ability to follow and give accurate explanations, the ability to answer novel questions correctly, and an ability to make valid, aka, truth preserving inferences deductively or probabilistically. Yet, on the other side of the aisle, Sliwa thinks that we should deflate or ignore grasping. For, according to Sliwa, grasping does not have any explanatory benefits, and so, parsimony favors a deflationist attitude towards grasping.

Although I take Hill's substantive account of grasping to be closer to the truth or, minimally, more useful, this is not to say that Hill's account is without its problems. As I see it, Hill's substantive account of cognitive control suffers from two problems. First, Hill's

²⁴ For example, I do not know why lying is generally wrong (if this statement is, in fact, warranted and truth-apt). Nonetheless, I subjectively understand that lying is generally wrong because, categorically, lying violates the categorical imperative or since lying rarely maximizes good consequences or since lying is generally viceful.

conception seems to conflate a definition of grasping with a criterion of grasping. Just as Russell famously urged us to make a distinction between a definition of truth and a criterion of truth, similarly, we should make a similar distinction with grasping because exemplifying any of these cognitive abilities is an observable action.²⁵ If, for example, Billy understands accounting, then we can observe Billy explaining general accounting principles or the tax code (provided grasping the tax code is possible) or answering accounting related questions. All of these skilled actions are observable, public. Nonetheless, unless we are radical behaviorists, presumably, there is a certain phenomenology or private aspect of grasping. So, the fact that Hill's cognitive control account of grasping ignores the private phenomenology or experience of grasping is the first problem of her account. For Hill's account seems to ignore a distinction with a difference, namely, the difference between understanding and understanding that one understands.

Secondly, although Hill's account of grasping is basically correct, her conception of grasping is factive. Nonetheless, this restriction precludes the possibility of subjective understanding. Yet, surely, subjective understanding is possible. In addition to what has previously been said in defense of this sort of understanding, simply consider the fact that we can explain archaic scientific theories and a multitude of incompatible philosophical or psychological explanations which is usually a sign that at least one explanation is non-factive. So, I think that Hill's account of grasping can be improved by making it a tad more robust, *viz.*, including non-factive explanations.

If, then, Hill's cognitive control account of grasping is modified by including a phenomenal and non-factive aspect, I think it avoids these two problems. My last comment on grasping is simply to note that it is possible that the grasping component of subjective

²⁵ See Russell's article, "On the nature of truth and falsehood." In *Philosophical Essays*. Longmans, Green

understanding is analogous to the “seeing” involved in intuition. Two reasons make this similarity between grasping and intellectual seeing apparent. First, both terms are metaphors involved in intellectual activities. Secondly, to borrow the structure of Sliwa’s analytical argument, it seems contradictory to assert, “I see why Smith lacks knowledge but I don’t grasp why Smith lacks knowledge” and also, “I grasp that Smith lacks knowledge, but I don’t see that Smith lacks knowledge.” So, then, there seems to be a striking similarity between the grasping characteristic of understanding and the seeing involved in intuition. In fact, what has previously been said indicates the possibility that grasping and intellectual seeing actually denote the same epistemic state or kind of cognitive phenomenology.²⁶

Although I have put forth a few reasons to think that the phenomenological component of grasping is analogous or identical to the intellectual seeming which accompanies intuitions, debates about phenomenology are controversial. After all, these sorts of experiences are difficult to describe and our phenomenology towards the same proposition varies. Also, it seems cheap to argue that understanding is not reducible to knowledge since the two have a different sort of phenomenology, say understanding’s phenomenology is similar to an intellectual seeming whereas knowledge’s phenomenology is certainty, a sense of confidence, yet an intellectual seeming and certainty are distinct sorts of cognitive phenomenology. Undogmatically, then, although I think that there is a case to be made in favor of non-reductionism by pointing to understanding and knowledge having distinct sorts of phenomenology, perhaps an answer to the reductionist question should not solely depend upon the phenomenology between these two states or whether knowledge can account for grasping.

²⁶ Since most philosophers accept that intuitions are not necessarily factive, if grasping and intellectual seeing are similar or identical, *prima facie*, it seems that what I have previously argued about understanding’s contingent relationship to the facts is then independently supported.

Some non-reductionists, as we have seen, have pointed to cases of bad epistemic luck to show that understanding is independent of knowledge. In particular, Hills argues that our previous Napoleon textbook case represents a scenario where understanding but not knowledge is exemplified. After all, the student does not know why Napoleon was a great leader (since their textbook was the only reliable one in class). Yet, the student allegedly understands why Napoleon was a great leader because they can exercise cognitive control with this true belief. Nonetheless, on the other hand, Sliwa thinks that her analytical argument *apriori* shows that cases of epistemic luck do not favor non-reductionism. After all, if it is contradictory to assert, “I understand why p but I don’t know why p,” then, categorically, it is impossible for cases of environmental luck to support non-reductionism.

However, as we have seen, Sliwa’s analytical argument is an overgeneralization. After all, it is perfectly appropriate to assert that one grasps and explanation given a specific model, i.e, that one subjectively understands *x*, while also denying that they know whether said model is accurate. So, Sliwa’s analytical argument fails to disprove the non-reductionist appeal to luck.

In fact, as I previously argued, subjective understanding is compatible with a common or perhaps inevitable sort of epistemic environment, namely, when our explanations are contrastively underdetermined. Depending on the scope of contrastive underdetermination, going by historical examples I think that the scope is quite broad, it is possible that we often lack theoretical knowledge but usually possess theoretical understanding, a humbling but plausible possibility. Although I think that the common epistemic situation for those theorizing (especially those philosophizing) is one of understanding rather than knowledge, another situation which exemplifies the unique relationship between understanding and luck is in the courtroom.²⁷

²⁷ A special thanks to Dr. Barnard for this example.

Imagine the epistemic situation of a juror after hearing two compelling but incompatible explanations of the evidence put forth by opposing lawyers. Presumably, the juror understands the case in two ways. But since these two explanations are incompatible, the juror does not know which explanation is right. Either or, whether during our theorizing or in the courtroom, such cases seem to highlight understanding's unique relationship to luck. It is bad luck that the evidence is insufficient for the juror to possess knowledge. Nonetheless, the juror understands the two cases. So, in a sense, understanding is compatible with environmental luck as non-reductionists have claimed. Moreover, in addition to understanding's grasping component and understanding's distinct relationship to the facts, understanding's unique relationship to luck seems to be the most distinct aspect of understanding and the best candidate for understanding's uniqueness.

Although I am somewhat confident that understanding, unlike knowledge, is compatible with cases of epistemic luck, the relationship between understanding and testimony seems more difficult to grasp. For, as we have seen, non-reductionists and reductionists reasonably disagree over testimony and epistemic asymmetries. Although both sides agree that testimonial cases, such as Prichard's faulty wiring case, represent scenarios where a relevant epistemic asymmetry exists, the disagreement arises over how to properly explain this epistemic lopsidedness. For, according to non-reductionists, the epistemic asymmetries in such scenarios are best explained by an incongruity of epistemic states. Sliwa, however, denies that the best explanation for the apparent epistemic asymmetry in Prichard's faulty wiring case is a plurality of epistemic states. For, as we have seen, Sliwa argues that the best explanation for said epistemic asymmetry is a difference of knowledge between the child and parent.

Nonetheless, as I have argued, Sliwa's background knowledge argument is unsuccessful.

After all, it is impossible for epistemic asymmetries to exist under skeptical scenarios *if* background knowledge best explains cases of epistemic asymmetry. Yet, it is possible for epistemic asymmetries to exist under skeptical scenarios, cases of contrastive underdetermination for instance. So, Sliwa's background knowledge argument fails to establish that knowledge is sufficient for understanding.

Although Sliwa's background knowledge argument fails to establish that knowledge is sufficient for understanding, I am not sure that Prichard is correct that the child possesses knowledge but lacks understanding in the faulty wiring case. After all, faulty wiring is not *Causa Sui*. Thus, in a relevant sense, to know the cause of the fire requires knowledge of the cause of the faulty wiring, and so on, *ad infinitum*. So, there is some room to doubt that the child possess knowledge in such a case.²⁸ But if the child fails to possess knowledge, then it does not matter if the child has or lacks understanding. For then non-reductionists cannot get their counterexample, a case where one has knowledge but lacks understanding. Because of these doubts regarding both reductionist and non-reductionist reasoning about understanding's connection to testimony, I shall suspend judgment regarding understanding's relationship to testimony. If I am speculating though, then I think that knowledge is sufficient for subjective understanding but knowledge does not guarantee objectual understanding. One's views on the connection between understanding, knowledge, and testimony truly seems to depend upon what conception of knowledge and understanding are being compared.

²⁸ Contextualists probably do not find my doubt about Prichard's faulty wiring case credible. Nonetheless, causes are a kind of directly unobservable entity but any knowledge about non-evident matters is doubtful. Plus, although Hume may have been mistaken about causality, I do not think that anti-Humean accounts of causality should easily pass as knowledge. Causality is mysterious and difficult to accurately describe.

VII. THE UNIQUENESS OF UNDERSTANDING

If what I have previously said is correct, in a sense, understanding is distinct.

Understanding and knowledge stand in distinct relationships to factivity and luck. One of the main motivations for non-reductionism and a reason why understanding's distinctness matters is that many non-reductionists have concluded that understanding is not only distinct from knowledge but also that understanding is a *distinctly valuable* kind of epistemic state. After a consideration of understanding's characteristics, non-reductionists have concluded that understanding is distinctly valuable, intrinsically and instrumentally.

According to Grimm and Hills, understanding is intrinsically valuable because making sense of our experiences is intrinsically valuable.²⁹ Prichard argues that, necessarily, understanding is a cognitive achievement and cognitive achievements are intrinsically choiceworthy.³⁰ Instrumentally, Hills notes that understanding is valuable because grasping affords us with cognitive abilities, which we can use to achieve our ends. I agree with Grimm, Hills, and Prichard, understanding is distinctly valuable for these reasons. Therefore, provided we are correct that understanding is distinctly valuable, which seems to be the case, *understanding is unique*. After all, analytically, it seems to be the case that understanding is

²⁹ Grimm, Stephen. "The Value of Understanding." *Philosophy Compass*, 7/2, (2012), pp: 103-117.
Hills, Alison. "Understanding Why." *Nous*, Vol. 50, No. 4, (2016), pp: 661-688.

³⁰ Prichard, Duncan (2009). Knowledge, Understanding and Epistemic Value. *Royal Institute of Philosophy Supplement* 84 (64): 19-43

unique if it is distinctly valuable. For to be unique just is to be distinctly valuable. Therefore, as Grimm, Hills, and Prichard note, understanding is distinctly valuable. Understanding is unique.

I think that understanding is unique for the reasons just mentioned. However, in addition, I think that subjective understanding is unique for a few more reasons. Intrinsically, subjective understanding is valuable because, as Aristotle noted, a contemplative life is intrinsically choiceworthy, for that is the best way to be happy, and subjective understanding is similar to contemplation.³¹ After all, contemplation does not seem to be entirely constituted by propositional knowledge, for then contemplation would just involve making axiomatic inferences. Rather, contemplation often involves subjective understanding, because sometimes when we contemplate we consider our ideological or ontological commitments and how well they cohere. So, subjective understanding can be intrinsically valuable. Therefore, in a sense, understanding is unique.

But, subjective understanding can be instrumentally valuable as well. This is the case because although sometimes we cannot have knowledge about historical events, the past, and since it is debatable how much knowledge we have about the future, often we can have subjective understanding about the past and future. After all, we can categorize history in the language of different historical narratives or explanations. Also, we can deliberate about the future with the help of our subjective understanding. Both of these activities can help us achieve our ends, even in the absence of knowledge. And, moreover, instrumentally, subjective understanding is valuable, since subjective understanding is consistent with contrastive underdetermination, a kind of skepticism. So, although contrastive underdetermination threatens our

³¹ Aristotle, *Nicomachean Ethics*, translated by C.D.C Reeve. 2014. Print.

knowledge, subjective understanding is safe from contrastive underdetermination. So, in economic terms, subjective understanding's competitive advantage is that it is consistent with being a historically situated inquirer and deliberator. Therefore, in a sense, understanding is unique.

VIII. CONCLUSION

So, is understanding simply a kind of knowing? Not necessarily. For after considering the dialectic between non-reductionists and reductionists regarding understanding's characteristics, factors germane to understanding's reducibility, undogmatically, I have argued that, in a sense, understanding is conceptually distinct from knowledge. Negatively, Sliwa's analytical argument fails to reduce subjective understanding to knowledge. Positively, cases of subjective understanding under contrastive underdetermination (Billy the accountant, our economic example, etc.) indicate that, in a sense, understanding is not necessarily factive but often compatible with epistemic luck, unlike knowledge. Although understanding is similar to knowledge, since subjective understanding is distinctly valuable in cases of contrastive underdetermination, sometimes understanding is compatible with skepticism and uniquely valuable. Understanding, in a sense, is unique.

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