Defending Nonreductionism About Understanding

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1 Introduction

In this note I defend nonreductionism about understanding by arguing that knowledge is neither necessary nor sufficient for understanding. To this end, I examine Paulina Sliwa's (2015, 2017) novel defence of knowledge-based Reductionism (Reductionism for short). Sliwa claims that one understands why *p* if and only if one has a sufficient amount of knowledge why *p*. Sliwa contends that Reductionism is supported by intuitive verdicts about our uses of 'understanding why' and 'knowing why'. In reply, I first argue that Sliwa's Reductionism leads to a vicious infinite regress. Secondly, I defuse the motivation in favour of Reductionism by showing how the linguistic data can be accommodated within a Nonreductionist framework.

2 Sliwa's Reductionism: content and motivation

Sliwa's Reductionism consists in the following biconditional (2017: 530):

(K-U)

An agent understands why *p* if and only if she has a sufficient amount of knowledge why *p*.

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(K-U) is a thesis about *propositional* understanding-why.[1] This has to be distinguished from what we may call *objectual* understanding, that is, understanding of various *phenomena* in the world (such as persons, events and so on).[2] This paper focuses exclusively on propositional understanding-why.

The notion of a sufficient amount of knowledge is spelled out as follows. First, having a given amount of knowledge depends on the range of epistemic possibilities that one recognises and excludes (2017: 534). That is to say, a given amount of knowledge depends on the range of epistemic possibilities which are ruled *in* and ruled *out*. Secondly, the amount of knowledge that is sufficient for understanding depends on the context (2017: 530). This gives rise to a contextualist semantics for 'understanding why' to the effect that the truth conditions of an understanding-why ascription vary depending on how much knowledge the ascribee needs to have in order for her to understand why *p* in the relevant context.

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[1] Notice that, as also emphasised by Sliwa (2015: 58, fn. 1), Reductionism is not committed to the claim understanding requires knowledge of *an explanation*. See Khalifa (2013) for an examination of this thesis.

[2] Kelp (2015, 2017) has developed a knowledge-based account of objectual understanding. Sliwa (2017: 524) also endorses the propositional/objectual distinction in slightly different terms, by distinguishing between what it takes to achieve a *specific instance* of understanding, in the sense of achieving a mental state whose content is propositional, and what it takes to have the *capacity* to achieve instances of understanding. (K-U) is a thesis about the former but not the latter. However, Sliwa also offers an account of the capacity of *moral* understanding as the capacity of knowing right from wrong. Even if it's not my aim to examine knowledge-based accounts of the capacity of understanding, my argument against reducing understanding why *p* to (a certain kind of) knowing why *p* has an indirect bearing on the question of what the capacity of understanding is. As I see it, it is desirable to have an account of propositional understanding-why that is in harmony with an account of the capacity of understanding. That is to say, if having the capacity of understanding is having the capacity of knowing, it is desirable that a manifestation of the capacity of understanding could also be an instance of propositional knowledge. This harmony would be lost if we had to forego knowledge-based reductionism about propositional understanding-why while still retaining a knowledge-based account of the capacity of understanding.

Sliwa presents (K-U) by discussing the following, originally case due to Hills (2016):

> Mary, who has thought about vegetarianism a lot and understands why it's morally
> required, tells Eleanor that it's wrong to eat meat because modern animal farming is
> cruel. Eleanor accepts what Mary says. […] Both know that eating animals is wrong
> because modern animal farming is cruel. But the epistemic possibilities among which
> Mary discriminates are much more fine grained than those of Eleanor. Knowing what
> animal farming looks like and what animals need, Mary realizes that it can be cruel to
> animals in different ways […]. Mary recognizes […] different ways in which animal
> farming could be cruel, and she knows which ones obtain.
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> [2017: 530-1, 534]

Intuitively, Mary understands why vegetarianism is morally required, whereas Eleanor does
not. Sliwa contends that this intuitive verdict can be explained by the fact that Mary has more
knowledge than Eleanor. Since, according to (K-U), only a given amount of knowledge is
sufficient for understanding, we can conclude that Mary understands why vegetarianism is
morally required whereas Eleanor doesn't since Mary has a greater amount of knowledge about
this topic than Eleanor has.

Importantly, (K-U) is motivated by a central argument, what I shall call the *linguistic
argument*. The linguistic argument considers a set of data about the felicity/infelicity of certain
linguistic constructions and inferential patterns and concludes that only (K-U) can explain such
data. Here are the data Sliwa considers (2017: 528, 540, see also Sliwa 2015):

(A)   "I understand why Stalin was evil, and I don't know why Stalin was evil".

(B)   "Jane understands why she ought to give to charity, and she doesn't know why she ought to give to charity".

(C)   "If Eleanor knows why eating meat is wrong but doesn't understand why it's wrong, then there is something that Eleanor does not know about why it's wrong to eat meat".

(D)   "Lucy has an impressive amount of knowledge about the extinction of dinosaurs—she knows everything there is to know, way more than any other scholar. And she also understands why dinosaurs became extinct".

Sliwa points out that (A) and (B) are infelicitous; (K-U) can explain such infelicity by claiming that (A) and (B) are contradictory (2017: 528). This, allegedly, shows that (a sufficient amount of) knowledge is necessary for understanding. Sliwa claims that (C) is a "good" inference and that (D) sounds odd (2017: 540). Her contextualist semantics can explain both verdicts: (C) is a natural inference to draw since Eleanor has some knowledge of why eating meat is wrong, but the amount of knowledge she has is not enough, given the context, for understanding. (D) sounds odd since attributing a large amount of knowledge is sufficient for understanding. This, allegedly, shows that (a sufficient amount of) knowledge suffices for understanding.[3]

One of the features of (K-U) that makes it particularly interesting is that it offers what I shall call a *pure* reductionist view of understanding. Pure reductionism is, roughly put, the idea that the fact that one understands why *p* holds in virtue of the fact that one is in a *different* epistemic

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[3] Sliwa argues that (K-U) enables the Reductionist to rebut two well-known arguments against Reductionism and in favour of Nonreductionism, the so-called *argument from testimony* relying on the thought that we can acquire knowledge but not understanding via testimony, and the *argument from gradability* claiming that understanding comes in degrees whereas knowledge does not (see 2017: 532-537). Since in the following section I argue that (K-U) should be rejected, this provides further indirect support in favour of Nonreductionism.

condition towards the *same* proposition, i.e. one has (enough) knowledge of why *p*. (K-U) should be contrasted with *impure* forms of reductionism, such as the following due to Christoph Kelp (2014: 358):

(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*.

(U-Why) does not reduce understanding why *p* to a certain form of knowing why *p*, e.g. having enough knowledge of why *p*. This is established by the fact that (U-Why) is not committed to the claim that having enough *knowledge* of why *p* is sufficient for understanding why *p*, whereas (K-U) is. According to (U-Why), the reducing work is done by some body of knowledge that ensures that, given the context, one is in a position to give a well-founded explanation of why *p*. So, the fact that one understands why *p* does not hold merely in virtue of the obtaining of a given epistemic condition, e.g. knowledge; it rather holds in virtue of an epistemic condition which ensures that one is able to perform an explanatory task. This is the first mark of impurity of (U-Why). Moreover, it can be sensibly asked whether having the amount of knowledge ensuring that one is in a position to give a well-founded explanation of why *p* entails that such knowledge is propositional. It can well be the case that the ensuring knowledge is of the *know how* type, and knowing how does not reduce to knowing that. (U-Why) leaves this possibility open, whereas (K-U) does not. That is to say, (U-Why) does not wear on its sleeve any indication that the required knowledge is propositional, whereas (K-U) does. This is the second mark of impurity of (U-Why), as contrasted with (K-U).

For these two reasons, I take (K-U) and (U-Why) to give rise to rather different brands of reductionism about understanding. The aim of this paper is to focus on (K-U) only and assess

its prospects qua latest development of pure reductionism about understanding.

3 Why (K-U) fails

(K-U)'s prospects are rather bleak, in that it leads to a vicious infinite regress. Recall that Sliwa accepts the following:

(1) An agent A understands why *p* if and only if A has sufficient amount of knowledge why *p* (2017: 530).

(2) A has a certain amount of knowledge if and only if A excludes and recognises certain epistemic possibilities (2017: 533-4).

(3) The amount of knowledge that is sufficient for understanding depends on the context C (2017: 530).

From (1)-(3) we derive:

(4) A understands why *p* if and only if A excludes and recognises the C-relevant epistemic possibilities.

It is reasonable to ask: what does it take for A to exclude and recognise the epistemic possibilities that are relevant in C? Notice that not *all* epistemic possibilities are relevant in C. That is to say, it is not the case that all epistemic possibilities are such that they have either to

be excluded or recognised in C. For one thing, this would set the bar of understanding too high, with the consequence that we would hardly achieve instances of such an epistemic good. For another, certain possibilities are simply irrelevant to the question A is taking up in C. While considering the question of, say, whether slavery is morally permissible, A should not take into account and recognise/exclude the possibility that aliens have a blue beard. By contrast, A should certainly take into account – and exclude! – the possibility that some people are slaves by nature.

As far as I can see, there is something off about the idea that A takes into account the C-relevant possibilities by sheer luck. More to the point, it seems incompatible with the contention that A understands why *p* in virtue of his (sufficiently) knowing why *p* that there be an element of luck, i.e. A's managing to take into account the C-relevant possibilities, that has made the correct and successful exercise of A's knowledge-based ability possible. As I see it, it is much more plausible and less *ad hoc* to say that A excludes and recognises the C-relevant possibilities since A knows something about C.

Lest the reader worry that this makes understanding too hard to reach, I turn to show that the foregoing is compatible with Sliwa's claim that we can sometimes gain understanding why *p* through testimony. Sliwa (2017: 534-5) argues that the reductionist should make room for the possibility of understanding based on testimony by noticing that it is simply not enough for A to know why *p* on testimonial basis in order for A to understand why *p*. To illustrate this point, Sliwa asks us to consider the case of Jones (who has no medical expertise) and Smith (a medical doctor), who both learn that their friend's death has been caused by lung cancer on the basis of a testimony of somebody who says: "It was lung cancer. Small cell carcinoma". This case elicits the intuition that Smith has a better understanding of why the friend has died than Jones has. To respect this intuition, Sliwa observes that Jones cannot rule out the same epistemic possibilities as Smith's in that "she lacks both the relevant conceptual resources and

medical background knowledge" (Sliwa: 2017: 535). This nicely translates into my idea that one has to have some knowledge of what the context is like in order to exclude and recognise the contextually relevant epistemic possibilities. In the case at stake, the context is medical and the bar is set by Smith's medical knowledge: hence, it is plausible to maintain that Jones does not have enough knowledge of what lung cancer is, what smell carcinoma is and how it differs from large cell lung cancer and mixed cell carcinoma, and so on and so forth. That is to say, Jones lacks some contextually relevant knowledge that would make her understand why her friend died to the same extent to which Jones does. So, this shows that knowledge of context is relevant even in cases where understanding is apparently "on the cheap" in virtue of deriving from testimony.

The point I have been making can be summarised as follows: contexts can be different, and since a difference in context can plausibly give rise to a difference in what epistemic possibilities are relevant, it seems that A needs to have enough knowledge of what C is like in order for A to exclude and recognise the C-relevant possibilities. This suggests the following:

(5) A excludes and recognises the C-relevant epistemic possibilities if and only if A has

     sufficient amount of knowledge about C.

Unfortunately for (K-U), though, (5) launches an infinite regress, as follows:

(6) A has sufficient amount knowledge about C if and only if A excludes and recognises

     certain epistemic possibilities. (From 2 and 5)

(7) The amount of knowledge that is sufficient for knowing C depends on a context C'. (From 3

     and 6)

(8)   A has sufficient amount of knowledge of C if and only if A excludes the C'-epistemic

possibilities. (From 4 and 7)

(9) A excludes and recognises the C'-relevant epistemic possibilities as required by C' if and

only if A has sufficient amount of knowledge about C'. (Assumption, by parity of reasoning

from 5)

(10)   A has sufficient amount knowledge of C' if and only if A excludes and recognises certain

epistemic possibilities. (From 2 and 9)

(11)   The amount of knowledge that is sufficient for knowing C'' depends on a context C''.

(From 3 and 10)

(R)   And so on and so forth, *ad infinitum*.

This regress argument seriously undermines the tenability of (K-U) in virtue of its viciousness:

In order for A to understand why *p*, A has to gain sufficient knowledge of what the relevant

context C is like. The regress argument shows that in order for A to gain such sufficient

knowledge, A has to exclude and recognise an infinite number of epistemic possibilities. This is

an unpalatable result.

4 Defusing the rationale for Reductionism

The Nonreductionist should not content herself with undermining (K-U). There is indeed a

main rationale for Reductionism, i.e. the linguistic argument, that holds irrespective of the specific brand of Reductionism one ends up accepting. So, while (K-U) can well be false, the central motivation in favour of Reductionism can still stand. Therefore, in order to fully undermine Reductionism, the Nonreductionist has to show the linguistic argument fails and that we *need not be* Reductionists. The remainder of this section is devoted to such a task.

In a nutshell, I claim that the Nonreductionist can explain the infelicity of (A), (B), and (D) and the felicity of (C) by appealing to the idea that speakers presuppose that understanding and knowledge are identical. However, since Nonreductionism denies that understanding reduces (and is therefore identical) to knowledge, such a presupposition is false.[4] Let me develop this strategy by taking the notion of presupposition first.

According to the well-tried Stalnakerian account of communication (Stalnaker 1999), speech acts take place against a common ground, viz. a set of propositions that is accepted by the conversational partners. A presupposition is a speaker's belief about what is common ground in a given conversation, and participants to a conversation adjust their beliefs to conform to the common ground. We can extend the notion of *speaker's presupposition* to *expression's presupposition* by saying that an expression carries a presupposition when any use of that expression would be infelicitous if the speaker did not have the relevant beliefs about the common ground.[5]

Harnessing the Stalnakerian apparatus, the Nonreductionist can claim that understanding-why ascriptions carry a presupposition of identity between understanding and knowledge. Thus, all felicitous uses of 'understanding why' must carry such a presupposition. To defend the

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[4] The appeal to false presuppositions of identity is analogous to the view, defended in López de Sa (2008) and Marques and García-Carpintero (2014), that predicates of personal taste trigger a (possibly false) presupposition of commonality that the speaker's and hearer's gustatory standards are alike.

[5] Such an extension has already been discussed and endorsed, amongst others, by García-Carpintero (2016: 38), Geurts (1999: 14), and López de Sa (2008: 305).

plausibility of such a claim, let us see whether 'understanding why' passes the two best-known linguistic tests for revealing the presence of presuppositions. Here they are:

> *"Hey, wait a minute!" test* (von Fintel 2004, Yablo 2006)
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> If π is presupposed by S, then it makes sense for an audience previously unaware of π to respond to an utterance of S by saying "Hey, wait a minute, I didn't know that π."

> *"and what's more . . . " test* (von Fintel 2004, Yablo 2006):
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> If S generates a presupposition that π, then it is infelicitous to follow S up with "...and what's more, π," or "and what's more, S*" where S* contains no more information than the conjunction of S and π.

I repeat (A) and (B) from above:

(A) "I understand why Stalin was evil, and I don't know why Stalin was evil".

(B) "Jane understands why she ought to give to charity, and she doesn't know why she ought to give to charity".

The Nonreductionist's claim under scrutiny is that the infelicity of (A) and (B) is explained by the fact that the speakers presuppose the negation of the presupposition to the effect that knowledge and understanding are the same. Thus, we have to reformulate the tests as follows:

> *"Hey, wait a minute!" test revised*
>
> If not-π is presupposed by S, then it makes sense for an audience previously unaware of

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not-π to respond to an utterance of S by saying "Hey, wait a minute, I thought that π."

"and what's more . . . " test revised

If S generates a presupposition that not-π, then it is felicitous to follow S up with "...and what's more, not-π," or "and what's more, S*" where S* contains no more information than the conjunction of S and not-π.

Let us now put (A) and (B) to test:

S utters: (A) "I understand why Stalin was evil, and I don't know why Stalin was evil". Her audience R responds (A*): "Hey, wait a minute. I thought that knowledge and understanding are the same".

R's utterance of (A*) is felicitous. So, this is evidence that S's use of 'understanding why' triggered a presupposition of identity between knowledge and understanding. This enables us to explain why (A) is infelicitous. Bear in mind that the Nonreductionist claims that all felicitous uses of 'understanding why' carry a presupposition of identity between knowledge and understanding. By uttering (A), S denies that understanding and knowledge are identical. Therefore, (A)'s utterance strikes us as infelicitous, in that it goes against the presupposition of identity governing felicitous uses of 'understanding why'. Let us turn to:

S utters: (B*) "I understand why Stalin was evil, and I don't know why Stalin was evil. And what's more, knowledge and understanding are not the same".

S's utterance (B*) is felicitous. This is therefore evidence that S is presupposing that knowledge and understanding are the same. Just like in (A), since (B) is such that the speaker is negating such a presupposition, this makes (B) infelicitous.

I have offered a Nonreductionist friendly explanation of the infelicity of (A) and (B). This shows that Sliwa's linguistic argument in favour of the necessity of knowledge for understanding fails. I turn now to examine the data allegedly supporting the sufficiency of knowledge for understanding. Here are the cases:

(C) "If Eleanor knows why eating meat is wrong but doesn't understand why it's wrong, then there is something that Eleanor does not know about why it's wrong to eat meat".

(D) "Lucy has an impressive amount of knowledge about the extinction of dinosaurs—she knows everything there is to know, way more than any other scholar. And she also understands why dinosaurs became extinct".

Nonreductionism can explain why (C) strikes us as a felicitous (yet invalid, according to Nonreductionism) inference: if all our felicitous our uses of 'understanding why' are such that they presuppose that understanding-why and knowing-why are the same, and if we accept the independently plausible thought that knowledge can vary in amounts, one can know why p without knowing all there is to why p. As for (D), the Nonreductionist explains its oddness as follows: since in all non-defective conversations it is a presupposition that understanding-why and knowing-why are identical, the last sentence is redundantly making it explicit something which is already accepted by all conversational partners.

Let me pause a bit more on the hypothesis that speakers make a false – according to Nonreductionism – presupposition of identity between understanding-why and knowing-why.

Even granting that such a presupposition of identity passes the two best-known linguistic tests for presuppositions, one might wonder: what explains the presence of such a (false) presupposition in the first place? To put it differently: why do we, ordinary speakers, make such a false presupposition of identity and take knowledge and understanding to go hand in hand?

This question deserves a much lengthier treatment than I can here offer, but let me suggest two possible explanations of this fact. First, it is typically the case that one understands and knows why *p*: the firefighter who has carefully examined a house fire knows and understands why the fire was caused by faulty wiring.[6] This might (mis)lead us in taking knowledge and understanding to be the same. Secondly, Lawler (2018) has recently argued that despite being different, understanding and knowledge exhibit the same strength of cognitive achievement: the former is not a stronger or higher cognitive achievement than the latter (or, we should add, vice versa). This might also help us to explain – or perhaps rationally reconstruct – why one could be led to think that knowledge and understanding are identical.[7]

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[6] I am using here Sliwa's example (2015: 64-5).

[7] An anonymous reader for this journal worries that since the false presupposition in question is the very thesis that I am arguing against, the move of appealing to such false presuppositions overgeneralises to the point of suggesting that all linguistic data that seem to speak against a theory T could always be accommodated by claiming that speakers falsely presuppose that not-T. This worry can be assuaged. For one thing, I have argued that the presupposition of identity I'm appealing to passes the two best-known linguistic tests for the presence of presuppositions. For another, I have gestured at two explanations of why ordinary speakers commit the mistake of identifying understanding why with knowledge why. This shows that positing the existence of a false presupposition of identity between understanding why and knowing why is a warranted move. Yet, it might well be the case that no such warrant can be obtained in other attempts at explaining different sets of linguistic data by positing the existence of false presuppositions. Hence, in all such attempts, the appeal to such presuppositions would be unwarranted.

Be that as it may, the presupposition of identity hypothesis is meant to capture the fact that our uses of 'knowing why' and 'understanding why' reveal that we take knowledge and understanding to go hand in hand. Nonreductionism has it that such a presupposition is false, in that understanding is not identical to knowledge. So, Nonreductionism commits us to the view that speakers are blind to the non-identity in meaning of 'knowing why' and 'understanding why'. Reasons of space prevent me from mounting a defence of the acceptability of semantic blindness. However, let me emphasise that if Sliwa's contexualism were true of 'understanding why', we would be committed to ascribing semantic error to speakers all the same, as witnessed by the fact that contextualism about knowledge ascriptions appeals to semantic blindness (see e.g. DeRose 2006 for discussion). Thus, this potentially controversial aspect of the Nonreductionist explanation of our intuitive verdicts about (A)-(D) is also shared by Sliwa's Reductionist explanation outlined above.

4 Conclusion

I have argued that (K-U) leads to a vicious infinite regress. I have showed that the main reason deployed by Sliwa in favour of Reductionism, i.e. the linguistic argument, can be accommodated within a Nonreductionist framework. This entitles us to conclude that Sliwa's case in favour of Reductionism fails and that Nonreductionism still offers the best account of understanding.[8]

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