Knowing and Understanding: Reply to Pettit

In "Why Knowledge is not Necessary for Understanding" (Pettit 2002) Dean Pettit argues against the orthodox view that knowing what a term means is necessary for understanding the term. The main argument relies on three examples, in each of which we allegedly have understanding without knowledge of meaning. In at least the first two cases, we want to defend orthodoxy, though not for orthodox reasons. (We have little to say about the case of understanding without belief, though we doubt the considerations presented here generalise to that case.) In those two cases, we think the subjects really do know the meanings of the terms they understand. Pettit spends a lot of time responding to a possible objector who claims that the subjects do know the meaning of the terms in their own idiolects. This is not our objection. We claim the subjects know the meaning of the terms in the public languages in question.

1. The Gettier Example

Pettit's first example is modelled on Russell's example of the stopped clock that correctly tells the time. Travelling in Germany a certain native English speaker who knows a smattering of German, we'll call him Mr. Nogot, sees an unfamiliar word, "Krankenschwester" and asks a local what it means. The local says, "It means *nurse*." This is true, and Nogot hereby comes to believe it, and hence interprets any occurrence of "Krankenschwester" in what appears to be a German sentence as meaning *nurse*. Pettit suggests that this is enough to say that Nogot understands the German word "Krankenschwester", assuming Nogot already possessed the concept NURSE, and we agree. But he thinks this is not enough to guarantee that Nogot *knows* that "Krankenschwester" means *nurse*. Pettit continues the story by saying that the local always says, "It means *nurse*." when asked a question in English. In that case his belief that "Krankenschwester" means *nurse* is only accidentally true, and hence does not amount to knowledge. As Pettit notes, this seems to be a Gettier example, a justified true belief that is not

knowledge. Pettit claims that whatever is lacking from beliefs in Gettier cases that makes them fail to be knowledge is lacking in this case also.

Pettit takes the main lesson of the Gettier cases to be that knowledge requires "some sort of appropriate relationship between the warrant for [the] belief and its truth." (526) Since the appropriate relationship does not hold in Nogot's case, Pettit concludes he does not know that "Krankenschwester" means *nurse*. We have three replies. First, some ways of probing intuitions strongly suggest that, according to intuition, Nogot does know that "Krankenschwester" means *nurse*. Since any argument from the Gettier cases rests ultimately on intuitions about those cases, we think this kind of consideration should be taken fairly importantly *here*. Secondly, the lesson Pettit takes from the Gettier cases is too broad, for there are clear cases where the appropriate relationship does not hold, but the relevant belief does amount to knowledge. Again, we will be appealing directly to intuitions about cases here, but since these are exactly the same kinds of intuitions that are appealed to in arguing that Gettier cases are not cases of knowledge, and hence knowledge requires a tie between truth and warrant, we do not beg any questions in *this* debate by assuming such intuitions are broadly reliable.[1] Third, we will suggest that there is a family of seemingly analytic connections between learning, understanding and knowing that seem firmer than our intuitions in Pettit's Gettier cases.

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[1] There are some quite general reasons for doubting that even the original Gettier cases refute the justified true belief account of knowledge. For example, Jonathan Weinburg, Shaun Nichols and Stephen Stich (Weinburg, Nichols and Stich forthcoming) show that the intuition that Gettier cases are not cases of knowledge is not as widespread as we may have assumed. But rather than try to rewrite all the epistemology of the last half-century just here, we shall ignore these arguments and focus instead on arguments specifically directed at showing that Nogot knows that "Krankenschwester" means *nurse*.

First Reply: The Intuitions are not Constant

When philosophers say that intuitively *x* does not know that *p*, what they usually mean is that when asking themselves, "Does *x* know that *p*?" they find it more intuitive to say, "No." And perhaps, though we are not sure, when we ask ourselves, "Does Nogot know that "Krankenschwester" means *nurse*?" the intuitive answer is *no*. But there are other questions, with potentially inconsistent answers, that may be more important in terms of judging what our intuitions really are. Consider the following three intuition pumps.

The mixed room: Thirteen people are in the ballroom. Six of them are native German speakers. Six of them are monolingual English speakers. And the thirteenth is Mr. Nogot. How many people in the room know what "Krankenschwester" means in German? We think the intuitively plausible answer here is *seven*, not *six*.

The homogenous room: As in the mixed room, except the six monolingual English speakers leave. Is it now true that everyone in the room knows what "Krankenschwester" means in German? Again, it seems very plausible to say *yes* here.

The bet: Herr Sieger and Herr Verlierer are placing bets on all sorts of things while they wile the day away. (Fortunately, they conduct their betting business in English.) As they see Mr. Nogot approach, Seiger says to Verlierer, "I bet that he knows what 'Krankenschwester' means in German." and Verlierer accepts the bet. After some simple research, they discover all the facts about Nogot as described above. Who do you think would win the bet? We think that it's very intuitive that Sieger wins, or at least should if the games are being fairly played.

We have three methods for testing intuitions that all point towards Nogot *knowing* that "Krankenschwester" means *nurse*. But why think that these methods have more evidential force than the simple method of asking ourselves whether Nogot knows that "Krankenschwester"

means *nurse*? Because in other cases where we agree on what the answers should be, after reflection, methods like the three listed here get the answer *right* and the simple method gets the answer *wrong*. To see this, we just have to examine some familiar cases where linguistic intuitions do not reliably track truth conditions.

Jack went up the hill on Monday, Wednesday, Friday and Sunday. Jill went up the hill on Tuesday, Thursday, Saturday and Sunday. Some might think if we knew all that we would find the sentence *Either Jack or Jill went up the hill on Sunday* odd, and this oddity might lead us to the belief that English *or* expresses exclusive disjunction, or at least that the truth of *A or B* requires that the speaker not know which of *A* and *B* is true. As H. Paul Grice argued (Grice 1989), neither of these responses is correct. And the tests we present here support Grice. For the sentence *Every day of the week, either Jack or Jill went up the hill* is intuitively true, and the intuitively correct answer to *How many days did Jack or Jill go up the hill?* is *seven*, not *six*.

Tom, Dick and Harry each have fifteen students in their logic classes, and they are the only logic teachers. Tom had five of his fifteen students fail, Dick had ten students fail, and Harry had all fifteen fail. It is certainly odd, if one knows this, to say *Some of Harry's students failed*. But this does not show that the sentence is false. For it is intuitively true that *Every logic teacher had some of their students fail*, and the intuitively correct answer to *How many teachers had some of their students fail?* is *three*. And if we had bet at the start of the course that some of Harry's students would fail, we would expect a payout on finding all fifteen had failed.

The point is not that we should ignore intuitions about possible cases as a way to fix the extension of philosophically interesting terms. We suspect that abandoning intuitions altogether would be impossible. Rather, the conclusion is that indirect intuition probes of the kind we have proposed may be more reliable than direct intuition probes. And since these probes suggest that Nogot does know that "Krankenschwester" means *nurse*, we conclude that he does.

Second Reply: *Some Gettier-like cases are cases of knowledge*

Assume for the sake of the argument that the first reply fails. There is an independent argument that Nogot knows that "Krankenschwester" means *nurse*. Pettit stresses the similarity between Nogot's case and some (alleged) cases of non-knowledge. We are more struck by the similarity between Nogot's case and some relatively clear cases of knowledge by luck.[2]

The *Encyclopaedia Galactica* just had a bad millenium. In every year, at least 90% of the copies they issued were so riddled with misprints and shoddy research that fewer than half of the sentences in the book were true. By a minor miracle, some editions managed to contain nothing but truth. One of these editions ended up on Suzy's bookshelf, where she learned all about British history. Indeed, she became something of a whiz. She could not only name all English kings and queens since the Norman conquest, she could recount their many and varied deaths. Given these facts, we're inclined to say that Suzy knows that, say, Anne Boleyn was executed for adultery. Yet she is lucky that her belief is true. Had she received a standard version of the *Encyclopaedia Galactica*, she may have falsely believed that Anne Boleyn was kidnapped by a flying saucer, or became an immortal, or perhaps never was English Queen. But her actual true belief is knowledge.

If that case is dubious, we can imagine a more mundane case. The *Guide to English History* gets most of its facts right. But for some reason it released a print run where most copies say that Anne Boleyn was executed for shoplifting. A quick-thinking printer noticed this, concluded that it had to be mistaken, and guessed, correctly as it turns out, that the crime was adultery. So the last few copies, including the one that Katie ended up with, tell the truth here. Katie reads her *Guide* thoroughly, and comes to have the same beliefs as Suzy. We are certain that Katie knows that Anne Boleyn was executed for adultery.

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[2] Some people, e.g. Mark Heller (Heller 1999) and Frank Jackson (Jackson 1998: 36) have suggested that the lesson of the Gettier cases is that one cannot acquire knowledge by luck. We think the following cases show that conclusion to be mistaken.

Nogot's position is very similar to Katie's. His belief about the German meaning of "Krankenschwester" fits into a large framework of justified true beliefs he has about the meanings of German words. In this case the truth of the particular belief was a little fortuitous, but that is not enough reason to deny that his belief amounts to knowledge. If anything, it is good fortune that allows Katie to know.

Since our third reply applies as much to Pettit's second example as to his first, we shall set out that example before presenting our last reply.

2. Understanding Without Warrant

Pettit's second case is of poor René. His brain has been altered by a mad scientist so that "slightly more than half the mass nouns in [his] vocabulary will seem…to have the wrong meanings." (538) His understanding of the other words is meant to remain intact. So, to use Pettit's example, René might now think that 'mud' means *pudding* and 'pudding' means *mud*, but he still thinks that 'milk' means *milk*. René is told that this alteration has been made, but not told which words will seem to have the wrong meaning. By hypothesis, René still understands the word 'milk'. Indeed, he still truly believes that it means *milk*. But, Pettit argues, he no longer *knows* that it means *milk*. The argument for this relies on the following principle. (We have paraphrased slightly.)

> *Known Probable Error (KPE) principle*
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> If *x* is the only source of information *S* has about *p*, and *S* knows that the
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> probability that *x* is in error is greater than ½, then *S* does not know that *p* is true.

Pettit argues that if the KPE principle is false, then there can be knowledge without warrant, whether warrant is understood in either an externalist or an internalist way. And he argues, quite plausibly, that there can be no knowledge without warrant. Hence the KPE principle is true. This

is a powerful argument, but nonetheless the KPE principle is false. It strikes us as a major research project to discover which premise in the little argument here fails.

Here is the counterexample to the KPE principle. A serious genetic defect runs through Jack's family: ungrammaticocious. Anyone who is born with ungrammaticocious has a dysfunctional syntax module, programmed not with universal grammar, but with a highly idiosyncratic batch of rules that no one else, not even other sufferers, can quite understand. Since it is impossible to *learn* the syntax of one's neighbours, sufferers seem to constantly speak oddly, though of course everything they say sounds acceptable to them. Fortunately, there are no other symptoms, so sufferers can live an otherwise normal life. (Or, as they might say, "Otherwise life, live; normal an.") If both parents have ungrammaticocious, as Jack's do, there is a high chance that the children will also have it. Indeed, all five of Jack's older siblings have the disease. But Jack was somehow spared, and indeed becomes a quite proficient English speaker. Jack does not know he was spared, all he knows is that his parents have ungrammaticocious, and hence that he probably does too.[3]

Now consider the status of Jack's beliefs about the syntacticality of various English sentences. The primary evidence he has for these beliefs is his innate syntax module. Jack knows that the probability that this module is in error is greater than ½. But, despite this, does Jack know that, for example, negative polarity items are licensed in the antecedents of conditionals? We think he does, assuming that he, like most English speakers is disposed to use negative polarity items in the antecedents of conditionals. He might think he lacks this knowledge, saying to himself, "If anyone whose parents suffer from ungrammaticocious ever comes to know when

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[3] One might worry that Jack has some other evidence that he does not have ungrammaticocious, specifically that other people to whom he talks can understand him. To make the case clear, assume that Jack does not have this kind of contact with the outside world, perhaps because of discrimination against suffers of this dreadful disease. Jack still listens to the radio and reads the newspaper, so he can learn English to some extent from those sources, but he does not know that other people can understand him.

negative polarity items are licensed, I'll be a monkey's uncle." But this little utterance is almost self-refuting, for it is pretty good evidence that Jack knows when negative polarity items are licensed.

This objection to the KPE principle is not meant to be merely a technical counterexample. We think the analogy between Jack and René runs quite deep. Although René (Jack) could have had brain scrambled in a way that destroys his semantic (syntactic) competence, he did not. And just as Jack does not lose knowledge by his proximity to a scrambling event, neither does René. Even though other parts of René's brain were scrambled, if the part constituting his understanding of 'milk' was not scrambled, it can still constitute knowledge.

Some of the things we said about the Nogot example also apply to the René example. In particular, the intuition pumps suggested using the rooms and the bets seem to also tell in favour of René's knowing that 'milk' means *milk*. But those intuition pumps would have had little evidential value if the argument against René's knowing this from the KPE principle worked. (A good theoretical argument like that always trumps a cheap intuition pump.) Since the KPE principle is false, however, so there is no compelling theoretical argument that René does not know what 'milk' means, we can rely on those pumps to show that he does know what it means.

3. Three Arguments that Understanding Requires Knowledge

Pettit uses the locution that "S understands *t*," where presumably he means something like "S understands that *t* means *q*." Otherwise, it is hard to see exactly what it means to understand *t*. Timothy Williamson (Williamson 2000) offers a principle which, if right, gives us reason to think that understanding, in this sense, does require knowledge. Williamson's principle is that factive stative mental operators (FMSO's) are all such that, for any FMSOφ:

      (W)   If J φs that *p* then J knows that *p*.

For instance, if you see that p, then you know that p. If you hear that p, then you know that p. 'Understands' is a FMSO since:

(a) If you understand that p, then p (factive)

(b) Understanding is a state, not a process. Thus, the following is an illegitimate construction: J is understanding that p. (stative)

(c) Understanding that p requires having an attitude towards p. (mental)

Williamson might be wrong here, but his principle is certainly compelling. Hence, understanding that p entails knowing that p and thus, Nogot either knows that "Krankenschwester" means *nurse* or he doesn't understand that it does.

Furthermore, consider the following principle:

(B) If J understands that t means q and J hears someone say t, J knows that they just said something that meant q.

(B) is extremely compelling as a thesis about ordinary language and the use of 'know'. It and (W) form a small family of principles that seem to govern relations between knowledge and understanding. Since, by hypothesis, Nogot understands "Krankenschwester", he is in good shape thereby to know that anyone who says "Krankenschwester" thereby says something that means *nurse*. It would be patently odd to see him hear someone say "Krankenschwester", see him conclude that he heard something that meant nurse and yet not think that he knew that he just heard something that means *nurse*. But then it seems entirely implausible to think he could do this without knowing that "Krankenschwester" means *nurse*.

Perhaps, though, *these principles are* too close to the thesis that knowledge requires understanding to be used in an argument for it. So we will close with a much less contentious principle:

(L) If J learns that *p*, *p* is true and J doesn't forget that *p*, then J knows that *p*.

We take it that (L) is intuitively quite plausible whether or not Williamson's (W) is generally true. Some evidence is that unacceptability of *Jill just learned that p but she doesn't know it*. That sentence is unacceptable because of the relation between learning and knowing. Learning is in general a sufficient condition for knowing: if you want someone to know something, you send them somewhere where they can learn it. Similarly, it seems like a completely acceptable answer to the question 'do you know that *p*' to say that you learnt that *p* at so and so a location.

In the first example, Mr Nogot learns that "Krankenschwester" means *nurse* from the local he asks. It would be extremely odd to think that we could not say 'from the local' in response to the question "Where did Nogot learn that "Krankenschwester" means *nurse*"? It would be most odd to say, "He didn't learn it at all. He merely heard it and came to believe it."

Now by application of (L), Jones knows that "Krankenschwester" means *nurse*, since he learnt that it does from the local, and he didn't forget it. This seems to leave no room to accommodate the intuition that Jones doesn't know that "Krankenschwester" means *nurse*. After all, this would mean that (L) is false or that Jones didn't learn that "Krankenschwester" means *nurse*, and both are implausible.

More generally, if J understands that *t* means *q*, then presumably she learned this somewhere, and has not forgotten it. (*Semantic* knowledge, unlike *syntactic* knowledge, is rarely innate, so semantic understanding, and knowledge, must be acquired.) Given this assumption and (L), it quickly follows that understanding requires knowledge.

One might object to (L) on the grounds that in Gettier cases someone learns something that they do not come to know. We think this is overly hasty as a response. The locution 'learned that *p*' is sensitive to relations of evidence and the target proposition. For example, consider the infamous Corvette case, where you see an acquaintance of yours who is a liar tell someone a convincing story about his alleged Corvette. You come to believe the lie and then deduce from it

that one of your acquaintances owns a Corvette. Now, unbeknownst to you, another acquaintance of yours actually owns a Corvette, making your deduced belief true. People are not generally inclined to say in that case that you learned that one of your acquaintances owns a Corvette from the liar. Of course, it *may* be true in the corvette case that you know that one of your acquaintances owns a Corvette, but there is no straightforward argument to that conclusion that involves (L).

None of the principles we have used here are invulnerable to attack. Indeed, if the Nogot or René examples showed what Pettit takes them to show, those examples would constitute good objections to some of these principles. But since Pettit's cases rest on rather contestable intuitions about cases that are, at worst, borderline, we think the arguments from each of the principles (W), (B) or (L) to the conclusion that understanding requires knowledge are in good shape.

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