

Intuitions and relativity

Kirk Ludwig

I address a criticism of the use of thought experiments in conceptual analysis advanced on the basis of the survey method of so-called experimental philosophy. The criticism holds that surveys show that intuitions are relative to cultures in a way that undermines the claim that intuition-based investigation yields any objective answer to philosophical questions. The crucial question is what intuitions are as philosophers have been interested in them. To answer this question we look at the role of intuitions in philosophical inquiry. When we have done this, we can see that it is impossible for intuitions properly understood to be relative in the way that has been suggested as they are conceived of as expressions of competence in the concepts deployed in their contents. The remaining methodological issues, though not to be dismissed, present no in principle objection to the method of thought experiments.

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1. Introduction

I address a radical criticism of traditional philosophical methods that has been advanced on the basis of the survey method of so-called experimental philosophy. The criticism holds that this method has turned up evidence that intuitions are relative in a way that undermines the claim that intuition-based investigation of traditional philosophical questions yields any objective answer to them. The two crucial questions are:

- (1) What are intuitions (supposed to be)?
- (2) What are they (supposed to be) relative to?

To answer the first we should look to the role of intuitions in traditional philosophical inquiry. To the answer the second, we should look to the relevant experimental literature. I will argue that when we have done this we can see that it is impossible for intuitions properly understood to be relative in the way that has been suggested.

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2. The Empirical Basis of the Charge of Relativity

I begin with an example of the target style of argument from experimental philosophy. This will help to answer our second question.

The two classics in this genre are “Semantics cross-cultural style” by Machery, Mallon, Nichols, and Stich (2004) and “Epistemic intuitions and normativity” by Weinberg, Nichols, and Stich (2001). As I have discussed the first elsewhere (Ludwig, 2007), I concentrate on the second here. Weinberg, Nichols, and Stich (WNS) give a characterization of the procedures of traditional analytic epistemology under the heading “Intuition-Driven Romanticism” (IDR). They are concerned with its application to epistemic norms, which they identify with what Goldman has called J-rules. J-rules are rules for evaluating the justificatory status of beliefs by how they are formed and updated: “they permit or prohibit beliefs, directly or indirectly, as a function of some states, relations or processes of the cognizer” (Goldman, 1986, p. 60). J-rules are to be tested by how well they accord with our “pre-theoretic intuitions.” WNS add: “as we use the notion, an epistemic intuition is simply a spontaneous judgment about the epistemic properties of some specific case—a judgment for which the person making the judgment may be able to offer no plausible justification” (2001, p. 19).

Schematically, they represent the procedure of traditional analytic epistemology as in Figure 1.

They assume that:

- (a) If there are significantly different inputs, there will be significantly different outputs.

The charge of relativity comes to this:

- (b) Different cultural or socioeconomic groups of people can and do have significantly different epistemic intuitions.

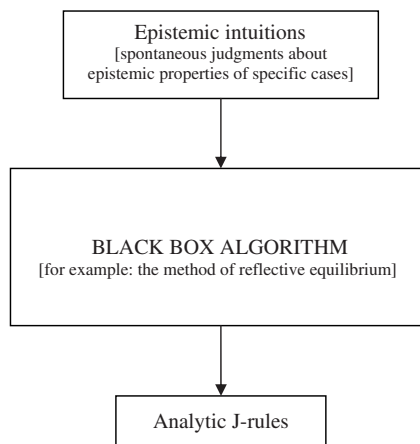


Figure 1 Schematic procedure of analytic epistemology according to WNS.

Thus, the method of IDR, given (a) and (b), will lead to different sets of J-rules for different groups of people. They take this to commit the IDR proponent to holding that different epistemic norms are appropriate for different groups, “a preposterous result” (WNS, 2001, p. 35).¹

What is the evidence for (b)? For the *possibility* of relativity of intuitions, they offer a thought experiment.

The following situation seems perfectly possible. There might be a group of people who reason and form beliefs in ways that are significantly different from the way we do. Moreover, these people might also have epistemic intuitions that are significantly different from ours. (WNS, 2001, p. 22)

I leave to the reader to decide whether this is an instance of the suspect IDR. In any case, the main point is supposed to be that there are empirical studies that support the actual relativity of intuitions to cultures and socioeconomic groups.

The studies reported in this paper were done with undergraduates at Rutgers, sorted into “East Asians” (EA) and “European Americans” (W), and students from Indian, Pakistan, and Bangladesh, that is, the Indian subcontinent (IS). Some surveys drew on people of high and low socio-economic status (SES), as measured by years of education (no college, low; one or more years, high). The probes are modeled after thought experiments designed to test the conditions under which one knows something rather than only believing it that have been widely discussed in the philosophical literature, such as the Gettier Cases and Dretske’s Zebra Case.² I review the two probes which elicited different majority responses.³ Only in these cases is there ground for the charge that norms differ cross-culturally, since how the majority responds is the only sensible criterion for assigning a set of norms to a culture on this basis.⁴

The first survey showing a difference in majority response across groups is about a “Gettier case” involving Bob’s thinking Jill owns a Buick, though she has recently replaced it with a Pontiac. Respondents were asked to say whether Bob really knows or only believes that Jill drives an American car. In Table 1, we have results for European Americans, East Asians, and students from the Indian subcontinent. There is a difference in majority response between the Westerners, on the one hand, and the East Asians and students from the Indian subcontinent, one the other.

The next relevant study involved a case in which it is stated that (i) smoking is linked to cancer, (ii) there is evidence that nicotine by itself does not raise the risk of cancer, (iii) Jim knows about the evidence and on that basis believes that nicotine

Table 1 Gettier Case.

Really Knows			Only Believes		
W	EA	IS	W	EA	IS
17 (26%)	13 (57%)	14 (61%)	49 (74%)	10 (43%)	9 (39%)

Table 2 Cancer Conspiracy Case.

Really Knows		Only Believes	
Low SES	High SES	Low SES	High SES
12 (86%)	6 (17%)	2 (14%)	29 (83%)

does not raise the risk of cancer, (iv) it is possible that tobacco companies made up the evidence, (v) though they did not, and Jim doesn't know (v). A difference in majority response was found between high and low socioeconomic status groups with respect to the question whether Jim really knows or only believes nicotine by itself does not raise the risk of cancer, as shown in Table 2.⁵

Thus we have differences among these groups in majority response to surveys about certain cases in which they are asked to say whether someone really knows something or only believes it. WNS assume that these responses express intuitions, and, thus, that we have empirical evidence for (b). Assume for the sake of argument that the results are robust and extend to larger sample sizes.⁶ What does this show about philosophical methodology? To answer this question we must turn our attention to what intuitions in philosophy are supposed to be.

3. Philosophical Intuitions

I am concerned with philosophical intuitions, or as I will also call them, borrowing George Bealer's term, *intellectual intuitions*, as their domain extends beyond philosophy.⁷ I distinguish these from empirical intuitions. When I was an undergraduate physics major, it was important to have good physical intuitions, intuitions about what physical systems would do in various circumstances. This was a matter of having a sense of how physical systems worked which enabled one to make good predications about them given a rough specification of initial conditions. Suppose you are on a merry-go-round 10 meters in diameter making one revolution every minute. You throw a ball at someone on the opposite side at one-third of a meter per second. Will you be able to catch it on the opposite side of the merry-go-round? Someone with good physical intuitions can say 'no' immediately. What I have described is a thought experiment, but a scientific thought experiment, designed to elicit a judgment based on one's implicit understanding of physical systems. Such a judgment is an expression of knowledge of how physical systems behave, perhaps from observation and experimentation rather than theory. This is not a philosophical intuition: in philosophical thought experiments we are interested not in a posteriori matters, but in what is a priori (or nearly so) and what is necessary (though these do not line up exactly). But note that even in the case of physical intuitions, not just any response to a scientific thought experiment counts. Someone may have no intuitions in this thought experiment about what will happen, and try to deduce it from first

principles, or just guess. The response he gives would not then express a physical intuition.

An example of intellectual intuition is provided by Euclid's proof that there is no greatest prime (an asterisk indicates a step that relies on intuition).

Suppose that there is a greatest prime. Let p = the greatest prime. *Then there is a series of primes, S , from 2 to p including all the primes, of which p is the largest, 2, 3, 5, . . . , p . Let P be the product of the primes in S . Let $n = P + 1$, i.e., $(2 \times 3 \times 5 \cdots \times p) + 1$. *If p is the largest prime, then n , being larger than p , is not a prime, and, hence, is divisible without remainder by some prime q . *It follows also that P is divisible without remainder by q , since q is prime and P is the product of all the primes. *But if n and P are divisible by q without remainder, so is their difference $n - P = 1$. *But as q is a member of the series 2, 3, . . . , p , 1 is not divisible without remainder by q . *Therefore, there is no greatest prime.⁸

The proof is compelling and a priori.⁹ The conclusion expresses a necessary truth. It involves what I am calling intellectual intuitions. When we see that if p is the largest prime, then n , being larger than p , is divisible by some prime q , we have an intellectual intuition. This is the same sort of intuition that philosophers talk about when talking about their intuitions with respect to the application of this or that concept in this or that circumstance. For example, in considering whether exclusive properties are always contradictory, we may rely on intuitions of just the same sort about the incompatibility of any two determinate colors and the compatibility of a surface not having a particular color with its having any of a range of distinct ones.

But what is going on here? There are at least five ways to think about how to individuate intellectual intuitions (where I use 'intuition' without a modifier in the following I will have in mind intellectual intuitions): in terms of phenomenal character, content, epistemic status, functional role, or etiology. The phenomenal classification attempts to identify intuitions on the basis of their phenomenology. Bealer, for example, argues that intuitions are a kind of seeming, and holds that that they present their contents as necessary: "necessarily, if x intuits that P , it seems to x that P and also that necessarily P " (1998, p. 207). On this view, you can decide whether or not you have an intuition by what it is like, as you would an itch or a tickle, or an occurrent belief as opposed to an occurrent desire. Individuated in terms of content, an intuition would be a judgment whose content is, for example, abstract, which doesn't mention any contingent particulars, or, alternatively, perhaps a judgment whose content is modal, to the effect that something is necessary or possible. On the epistemic classification, intuitions are taken to be judgments or attitudes that have a priori warrant. On the functional classification, they are taken to be judgments or attitudes that have a certain functional role, perhaps that of being spontaneous responses to questions, or judgments which survive a certain sort of procedure, or the like. On the etiological classification, an intuition is marked out by what explains it, namely, the subject's *understanding* of the proposition intuited. The etiological classification, I maintain, is fundamental to understanding the role of intuitions in a priori inquiry.

I begin by saying why I think the etiological classification is fundamental, and then turn to the defects of the competing accounts.

We appeal to intellectual intuitions in the context of a priori inquiry. A priori truths, in the tradition, were truths of reason, notwithstanding Kant's attempt to make room for the synthetic a priori. As we now think of them, truths of reason are conceptual truths, propositions that are true in virtue of their contained concepts and mode of combination. What are concepts? Concepts correlate with words at the level of thought. As words are the common elements of different sentences, concepts are the common elements in different thought contents. Since concepts are the elements of thought contents, to have beliefs, desires, and so on, we must possess the concepts involved in them. Possessing a concept, like knowing the meaning of a word, is being competent in its deployment. Having a concept may involve having certain beliefs or making certain judgments involving it. But since the possession of a concept also puts one in a position to think about things one has not yet thought about and to know what it is that one is thinking about, concept possession is more than simply having certain beliefs—even if to have them one must possess the concept and to have the concept perhaps one must have them.¹⁰

Intellectual intuitions, in the context of a priori inquiry, are conceived of as apprehensions of a priori truths, and, thus, of conceptual truths. It is our competence in the deployment of concepts, a condition on our possessing them, and so having beliefs and other attitudes involving them in their contents, that puts us in a position to say in principle whether a proposition is validated solely by the contained concepts and their mode of combination. The linguistic parallel is the possibility of identifying analytic truths, sentences true in virtue meaning, on the basis of competence in the use of the contained words and their mode of combination. It is only if a judgment is *solely* an expression of one's competence in the contained concepts and their mode of combination that it counts as an apprehension of a conceptual or a priori truth. Insofar as we think of intuitions as insights into conceptual truths, they are to be conceived of as judgments or beliefs which are the product of our competence in the deployment of the concepts involved.

A consequence is that intuitions are not evidence for what they are about.¹¹ They are akin to propositional memories. Propositional memories are not evidence for what they are about. They rather preserve antecedent knowledge. Intuitions are similar, not in being expressions of antecedent propositional knowledge, but in being expressions of prior know-how or conceptual competence. Their warrant derives from their source. Just as a belief which is an expression of a propositional memory can count as knowledge even if the person remembering does not know that he is remembering, so too a belief which is an expression solely of conceptual competence can count as knowledge without the person whose belief it is knowing that it is. No inference is needed from an occurrent propositional memory to knowledge of its content; likewise no inference is needed from an intuition to knowledge of its content. On this etiological conception of the warrant of intellectual intuitions, the evidential model of intuitions, which treats intuitions as evidence for what they are about, is fundamentally misguided.¹²

The etiological account of intuitions is superior to its rivals because no other classification answers to the purpose for which we seek to elicit intellectual intuitions. We want our account of intuitions to fit our conception of their role in philosophical inquiry. The etiological account does this straightforwardly and in a way that underpins their use in a priori inquiry. We want any classification of intuitions to count a judgment expressing competence in deployment of concepts alone as an intuition, and ideally we'd like it to classify only such judgments, or at most judgments suitably closely allied.

A defect of the phenomenological classification is that it is unclear that every judgment which expresses solely conceptual competence has a distinctive phenomenology. The phenomenology of intellectual intuitions cannot simply be that something seems to us to be so. Things can seem to us to be a certain way though we are not having an intuition because the seeming has the wrong sort of explanation. What we remember to have occurred or what we learned in the past may seem to us to be so, but these are not intellectual intuitions. Similarly, physical intuitions may involve things seeming to us to be so, but we don't count these as intellectual intuitions either.

Bealer identifies the phenomenology as involving something's seeming necessarily to be so. However, this is too strong, for at least three reasons. First, many judgments based on conceptual competence are so obvious that they do not present themselves as seeming so but simply as being so. Second, even when in tentatively judging something to be so we feel inclined to say it seems to us to be so, it is not clear that it is always the case that it seems necessarily so. In judging that if anything is longer than another and it longer than something else, then the first is longer than the last, I need not on the face of it deploy the concept of necessity. But I am making a judgment that is based solely on competence in the use of the concepts involved. When I make the judgment, perhaps in the course of some reasoning, it does not present itself as necessary, or as *seeming* to be so at all. Yet we clearly want to treat this as a paradigm instance of reliance on intuition in a priori reasoning. Furthermore, it is not clear why one should so much as need the concept of necessity in order to make an intuitive judgment. Cannot children have intuitions (e.g., that if a thing is red it is not blue) though arguably they lack the concept of necessity (Pust, 2000)? Philosophers are much more apt than most to be reflective about a priori inquiry. If we have in mind that we are after necessary truths, then it may affect the phenomenology of our judgment. Thus it may appear to us (philosophers) that intuitions always present their contents as necessary, when that is not so. Third, there are prima facie counterexamples to the claim that all intellectual intuitions involve necessary truths, and if we are clearheaded, it will not then seem that what we judge is necessarily so. Consider:

- (3) All actual philosophers are philosophers.
- (4) All philosophers are philosophers.
- (5) Necessarily, all actual philosophers are philosophers.

If one can have an intellectual intuition whose content is given by (4), one can have an intellectual intuition whose content is given by (3). Yet, while (3) is true and a priori, (5) is false. While I *am* a philosopher, I *might have been* an investment banker.

Individuating intuitions by content, most plausibly as judgments with (a) modal content (restricted to conceptual necessity and possibility) or (b) general or abstract content, (i) leaves out judgments we count as intuitions and (ii) includes judgments that we don't. With respect to (a)(i), all the judgments involved in understanding Euclid's proof that there is no greatest prime are counterexamples. Likewise, the judgment that (3) is a counterexample. We are not judging that this is necessary, because that is false, but we are not judging that it is merely possible either. Second, with respect to (b)(i), it is unclear that all intuitions are wholly general. A point sometimes made in this connection is that our judgments about scenarios in thought experiments are sometimes expressed using proper names. Consider a Gettier case in which Smith infers *from* his justified but false belief that (1) Jones owns a Ford *to* the true justified belief that (2) Jones owns a Ford or Brown is in Barcelona. We report the intuition that Smith does not know that (2), but here the proposition appears not to be general or abstract. In these cases, though, the names function as proxies for any individuals of the types described in the scenarios, so the judgment should be treated as implicitly general. However, consider the judgment that I might not have existed, i.e., that it is possible for me not to exist. This is not a judgment based on empirical investigation. It appears that I have an intellectual intuition that it is possible for me not to exist.¹³ The content, though, is not abstract, because it involves a contingent particular, and it is not a priori for the same reason: it entails that I exist and I cannot know that a priori.¹⁴ Hence my earlier remark that "when we talk about intuitions, we are interested not in contingent, a posteriori matters, but in what is a priori (*or nearly so*)." But, finally and most importantly, with respect to (a)(ii) and (b)(ii), it is clear that we can make judgments with modal or abstract content without their being intuitions. For example, one may learn a list of primes provided by a teacher but not check that each number on the list is prime. If one judges that twenty-nine is prime on this basis, one does not thereby have an intuition. The same goes for a list of necessary truths. Second, many modal and abstract truths which are conceptually true are too complicated for us to have intuitions about. We have to instead work out that they are true from other things we can see to be true intuitively. For example, I don't have the intuition that there is no greatest prime, or that necessarily there is no greatest prime. Content alone then is inadequate as a means of classifying judgments as intuitive.

With respect to the epistemic classification, the proposition that I might not exist is a potential counterexample. Aside from this, we can know things a priori, by way of a lengthy proof, which we cannot know by intuition. In addition, even if it got the extension right, it would lack the explanatory power of the etiological classification. While we should be in a position to tell in principle whether a judgment is based on conceptual competence, it does not seem that we could tell that a judgment was a priori except by way of determining that it had a warrant from a source that did not

depend on experience, such as competence in the deployment of the concepts involved.

Finally, let's turn to the functional classification, which is of particular importance in the current context. On this way of thinking about intuitions, they are judgments made in certain circumstances (perhaps we will say "spontaneously"), perhaps about some actual or imagined scenario, or about some abstract proposition, typically in response to a question, which may be posed by someone else or by oneself. This is the sort of classification one might arrive at by taking the anthropological approach to what philosophers do, looking over their shoulders and jotting observations down in a notebook. This obviously doesn't get at what we are interested in. It does not distinguish, for example, judgments based on memory, or implicit knowledge of physical systems, or internalized empirical theories, from intellectual intuitions. Someone who is guessing or making a stab in the dark or engaging in wishful thinking could be counted on this view as having an intuition. But clearly none of these things are candidates for intuitions, *as philosophers have been interested in them*. No competent philosopher, in instructing someone in what the point of a philosophical thought experiment is, would say to her that it was to get her to make a spontaneous judgment about it. That would be absurd. The point is to get people to respond simply on the basis of their understanding of the described scenario and the question about it, without bringing to bear empirical theories or background assumptions, that is to say, on the basis of their competence in the concepts involved in the description and the question.

4. The Status of the Claim

What is the status of my claim about intuitions, or about the word 'intuition'? Am I making a claim about actual usage, suggesting a revision, or introducing a precisification of our terminology? While 'intuition' has many uses, I am interested in the use of 'intuition' in connection with in a priori inquiry in philosophy and other fields, where the object is to uncover basic conceptual truths about the subject matter. I am claiming to give an account of what it is that philosophers have had in mind in talking about intuitions involving philosophical thought experiments when aiming at elucidating the application conditions of concepts.¹⁵ And I have identified that by way of the role that intuitions are supposed to play in philosophical theorizing.

This has to be reconciled with the fact that philosophers often talk of conflicting or differing intuitions, which is one source of suspicion about them. To take an example of Gilbert Harman's, consider whether when a sniper shoots an enemy soldier, knowing that in doing so that he will alert others to his position and desiring not to do that, he intentionally alerts the others to his position. I say *no* but others say *yes*, and we often describe this disagreement as a conflict of intuitions. But if my account of intuitions is correct, this can't be right, since on my account if you have an intuition that *p*, then it is a conceptual truth that *p* (modulo the issue about modal

intuitions involving the self). Only one of us could be right, if we understand the case in the same way. So there might be a conflict of judgments about the case, but there cannot be a conflict of intuitions.

But then how do we account for what we say in these cases? How do we account for the common refrain: Your *intuition* is that so and so, but mine is that such and such. We just have a *brute* conflict of intuitions.

On the anthropological approach, this makes it seem as if intuitions are just brute judgments of some sort. However, we can begin to see what is going on by noticing that we say similar things about what we remember. One person says, speaking of the events leading up to a crime, that he saw A pull a gun from his pocket and shoot B. Another says: That's not how I remember it. B pulled a gun and A attempted to take it from him, and in the struggle B got shot. Here we may be inclined to say that their memories of what happened conflict. The one may say to the other: you may remember it that way, but I remember it differently. But of course they can't both be right, not just about what happened, but about what they remember. At least one of them, if not both, is wrong about what he remembers. Why then do we say what we do? Partly it is laziness and partly it is politeness. It is easier to say that their memories conflict than it is to say that what it seems to each of them that he remembers conflicts with what it seems to the other he does. Knowing how memory works, we see through what is said to what is meant. Secondly, when two people are engaged in a disagreement about what happened, not challenging another's claim to remember something directly, but instead only indirectly and by implication, will be perceived as politer, as showing a proper humility about one's own position vis-à-vis that of the other; and this often facilitates discussion that leads to convergence. Indeed, one might be given pause by the disagreement, and so while asserting what one believes one remembers, signal that it is a matter for further discussion by not directly challenging the other's claim to remember things happened differently. The same factors are at work in the case of intuitions. We speak of conflicting intuitions as a shorthand for conflicting judgments that each puts forward as based properly on conceptual competence, and we speak of our intuitions being in conflict with those of others when we want to signal intellectual humility and leave room for further discussion.

We could allow a relatively ingrained pattern of usage, perhaps arising in the way sketched, has led to a shift in meaning from 'intuition' in the sense I have outlined to the sense of 'seeming intellectual intuition' to accommodate talk of conflicting intuitions as literal. I do not think this is the correct interpretation of the usage patterns, but even if it is, it is not a matter of the first importance. What is important is that we seek intuitions as expressions of underlying competence. Even if we allow intuitions a broader range than I have suggested, they would still be limited to judgments which are conditioned minimally by the goal of expressing such competence. And keeping that in view is what is important for getting a clear picture of the methodological issues facing philosophers in a priori inquiry, for knowing what we aim at is relevant to understanding how we may miss the mark.¹⁶

5. Relativity of Responses is Not Relativity of Intellectual Intuitions

Let's now return to the question of whether intellectual intuitions are or could be relative to culture or socioeconomic status and the bearing of the survey results we reviewed earlier on this question.

The answer is clearly 'no', once we clarify what philosophers have in mind by intuitions and their connection with the concepts which are involved in them. Since intuitions are the expression of our competence in the deployment of the concepts involved in them, there can be no genuine conflict between intuitions, anymore than there can be genuine conflict between memories. If I really remember that *p* and you really remember that *q*, then that *p* and that *q* are compossible because they are both true. If I have the intuition that *p* and you have the intuition that *q*, then that *p* and that *q* are compossible because they are both true. If I have the intuition that *p* and you judge that *q*, and that *p* is not compossible with that *q*, then your judgment is not an intuition, no matter what other features your judgment has.¹⁷

Therefore, the differences in responses among those surveyed as described above are not differences in intuitions about cases conceived of in the same way. They are not because it is conceptually impossible.

But am I really rebutting the charge which has been leveled? Clearly the use of 'intuition' to mean *intellectual intuition* is distinct from the *stipulative* use of 'intuition' specified by WNS. They say, "as we use the notion, an epistemic intuition is simply a spontaneous judgment about the epistemic properties of some specific case—a judgment for which the person making the judgment may be able to offer no plausible justification" (WNS, 2001, p. 19).

Of course, in that sense of 'epistemic intuition', epistemic intuitions are relative to cultures, to socio-economic status, to the time of day, to past experience, to gender, education, upbringing, religion, intelligence, expertise or lack of it, to emotional state, how alert one is, to the order of the words in the question, and a host of other things. *Who would have thought otherwise?*

The mistake lies in the suggestion that this is what philosophers have been trying to elicit in considering thought experiments when trying to articulate the structures of our concepts. The observation that there is a sense of the sentence, 'Intuitions about the same proposition are relative to (vary across) cultures', on which it is true, the stipulated sense, is irrelevant to what philosophers do because it does not track what philosophers are interested in. For example, on this way of understanding intuitions, if someone had been told that knowledge is strong belief and came to believe it on the basis of authority, but forgot how he got the belief, if he is asked whether someone who has a strong belief that the moon is made of blue cheese knows that it is, he may answer spontaneously that he does without being able to offer any plausible justification. But that is obviously not an intuition in the sense in which philosophers have talked about intuitions. The point is to answer on the basis of one's grasp of the relevant concepts.

Perhaps proponents of the relativity of intuitions at this point might suggest that these results really do reflect a conflict of intuitions because they reflect different

standards or norms for justification. That is, they show the relativity of the underlying concepts of justification to different cultures. There is no reason to think that the variation in response is a variation in intuitions in the relevant sense. But beyond this the suggestion is simply incoherent. Intuitions are expressions of the mastery of concepts. If one has an intuition, it is an expression of the application conditions of the concepts involved in it. Concepts are individuated by their application conditions. So sameness of concepts implies sameness of application conditions. So sameness of concepts implies sameness of intuitions.

If one person says, ‘Anyone who is F is justified in believing that p’, and another says, ‘Anyone who is F is not justified in believing that p’, then if each is expressing an intuition whose content is given by that sentence taken literally as he uses it, what we can conclude is that they do not express the same proposition by that sentence. Just so if one person uses a word W correctly to apply to x in light of its being F in his language and another uses W correctly in withholding it from x in light of its being F in his language, then we simply conclude that the words in their respective languages don’t mean the same. We express this in the formal mode, not in the material mode. If the word is ‘justified’, we say what the one means by ‘justified’ (what concept he expresses by it in his language) is different from what the other means by ‘justified’ (what concept he expresses by it in his language). We don’t express this by saying that what is justified for the one (person, culture, etc.) is different from what is justified for the other (person, culture, etc.), for that presupposes we use ‘justified’ in the same sense in each appearance of it.

This is quite distinct from the claim that two people internally the same but in different external circumstances might differ in the degree of justification of a common belief. And it is quite distinct from the claim that ‘justified’ and ‘knowledge’ are semantically context dependent. Context dependence involves sameness of sentence meaning with different contextual inputs to produce (possibly) a different literal utterance meaning, not difference of sentence meaning across contexts.

6. Has the Methodological Problem Just been Shifted?

Even granting that intellectual intuitions, being expressions of conceptual competence, cannot be relative to anything, can’t the challenge just be reformulated? Sure, intuitions of the sort philosophers have been interested in can’t be relative in the way suggested, but in the light of so much disagreement about what to say about cases, doesn’t this just shift the problem to that of figuring out when we are having intuitions about cases?

Yes, but having in clearer focus what intuitions are and why they are relevant to a priori inquiry helps with the remaining methodological problems.

A preliminary point is that reliance on intuitions in the relevant sense is pervasive and inescapable. Every judgment we make is conditioned by our competence in the concepts we deploy in them, though they be based on empirical observations. It is, for example, an expression of competence in the deployment of concepts that we

judge that something that looks red in what we believe to be normal lighting conditions under normal conditions for perception is red. And the recognition of the connection between those conditions and the judgment that something is red is in effect an intuition. We don't think about this typically because it is so pervasive and routine. Furthermore, there is no other option in the pursuit of a priori knowledge. Intuition is the only game in town.

A second preliminary point is that we often do not have any qualms about relying on intuition. This is true in the ordinary reliance on intuition in making connections between beliefs and observations, and in mathematics and in the sciences in drawing inferences from theories and observations. Einstein's development of special relativity theory, for example, was in part a conceptual exercise in the analysis of the empirical concept of simultaneity on the assumption that there is an upper limit (the speed of light) to the speed at which information can be transferred.

The question then is whether there are any special problems that arise in the context of philosophical inquiry, where there often seems to be more disagreement and less consensus.

The fact that disagreement on fundamental matters is salient in philosophy, however, should not obscure from us the fact that there is an enormous amount of consensus on conceptual matters among philosophers. It tends to escape notice because (a) like the conceptual consensus of everyday life, it is so routine, and (b) it is part of our job to examine things we are still not clear about. This can lead us to overlook how much consensus there is and the fact that there has been enormous progress in getting clear about conceptual matters in philosophy, much of which has historically laid the foundations for important advances in the empirical and mathematical sciences. The confusions of the ancients and the moderns are legion, though they made enormous strides over their predecessors, and left us a legacy that has enabled us to see farther and more clearly than they did. But one doesn't have to go that far back to see enormous progress. If you read philosophy chronologically in any field over the last fifty years, you see an enormous increase in sophistication in every field of philosophy, and that a lot of things have become common ground.

Still, in many areas, it may seem that consensus still eludes us, as on topics, like free will and knowledge, which have been the focus of attention since antiquity. Well, why not? They are fundamental, difficult, and important. No one ever said that inquiry into the connections between our concepts is simple. Philosophy would be a lot easier if it were. We make mistakes, and we often disagree or seem to disagree, and when we disagree, we need to figure out what is going on, and if there is a genuine disagreement, who is right and who is wrong. This is a familiar methodological problem, and certainly one to which philosophers have devoted attention.

A similar problem attends the use of memory, and the parallel is instructive. Sometimes we make mistakes. We think we remember something when we don't. We find ourselves disagreeing with others, who claim to remember differently. To correct mistakes, we try to remember other things to see whether what we seem to remember coheres with them. We ask others, beyond those involved in the immediate disagreement, who might be in a position to report on the same matters. We consult

records of various sorts. We look for what we seem to remember to cohere generally with our picture of the world. We consider what we know about the conditions under which memory is less likely to be reliable. We may be led to give up the claim that we remember something. Whether when we remember something we know it, however, as we have noted, does not depend on this kind of second order validation of it as memory. If it is memory, then we know what we remember, whether or not we achieve a reflective endorsement of it.

Similar points apply to intuition. To correct mistakes or adjudicate disputes, we think about what our concepts imply, so far as we can tell, about other related matters to see how well what seems to us to be so in the matter in doubt coheres with other judgments where we seek conceptual illumination. We ask others, beyond those involved in the immediate disagreement, who might be in position to report on the same matters (others who have the same concepts). We consider how well it coheres with our picture of the world generally so far as this is a matter of its conceptual structure, and with what we know about the kinds of mistakes one might be prone for fall into, as a contingent matter, in light of what we know about how language works and how we think and the conditions under which our judgments are less reliable. As in the case of memory, however, whether or not we achieve this second-order validation of a judgment as an intuition is not what is crucial to its delivering knowledge to us. That is simply whether it is an intuition. If it is, then even absent a second-order validation of it in the face of doubt, we do know what we judge to be so. This sort of knowledge, like memory, is not undermined by second-order doubt, except insofar as one loses belief as a result.

Should we be concerned about surveys showing variation within and between cultures or groups on answers to questions about the scenarios of thought experiments? There is certainly *nothing new* in the observation that there is interpersonal variation in response to thought experiments, even among professional philosophers, let alone among undergraduates, and people in general. Diachronic intrapersonal variation in response is familiar enough too. There is therefore nothing new to worry about on that score. It is certainly of some interest if there are differences in tendencies in responses which vary with culture. But there is nothing in this to suggest that there are in principle difficulties in deciding what the right thing to say about the cases is, for one thing we can be sure of is that the differences are not due to difference in intuitions. So far as everyone has the same concepts, they are in a position to say the right thing about the cases. It is matter of finding out what is running interference with making the right judgment, and there is no reason to think we can't figure it out.

7. Problems with Probes

There are real difficulties with taking the results of surveys of untutored subjects to give us much guidance about the application conditions of concepts. This is clear

from a survey of the various ways in which we can go wrong in responding to the scenarios described in thought experiments or questions about abstract matters.

First, for survey results to be relevant at all we have to have some check on whether or not the respondents understand *the task* in the right way, and even explicit instruction in this is not guaranteed to get the desired result.

Second, we have to be sure that the respondents understand the scenario and question as intended. In this connection, careful design of a thought experiment is a necessary condition for getting results that have a claim to attention.¹⁸ In illustration, consider the Gettier probe that WNS use:

Bob has a friend, Jill, who has driven a Buick for many years. Bob therefore thinks that Jill drives an American car. He is not aware, however, that her Buick has recently been stolen, and he is also not aware that Jill has replaced it with a Pontiac, which is a different kind of American car. Does Bob really know that Jill drives an American car, or does he only believe it?

The topic of the question, 'Jill drives an American car', is a habitual. It is about Jill's driving practices. It can be true of Jill that she drives an American car even if the car is in the shop and she has a Toyota as a loaner. This is relevant because the scenario leaves it open that Bob reasons as follows. Jill's having driven a Buick is evidence that she drives American cars, and that therefore she is likely still to be driving an American car even if not a Buick. Understood this way, this is not a Gettier case, since Bob relies on no false lemma in his reasoning. Even if a scenario is clear and unambiguous, however, and crafted so as not to give rise to misleading conversational implicatures, it can still be misunderstood if respondents have poor comprehension and cognitive skills. One of the benefits of studying philosophy is that students *get better* at these sorts of general cognitive skills *through exercising* them on difficult questions and having their mistakes corrected.

Third, one has to control for performance errors. For example, failure to think hard or clearly about something (the problem of the unmotivated or lazy student), low skill levels at the task, and lack of intelligence will often lead to unreliable results.

For these reasons, among others, the results of surveys of undergraduates, let alone people on the street, have to be treated with considerable caution. They tell us something about the target concepts only relative to a variety of empirical assumptions about the responses in the aggregate, which themselves have to be empirically checked. As the surveys themselves show, even the majority response cannot be taken to be a clear indication of application conditions for concepts because of variation between groups. This is something we are already familiar with, as shown by the prevalence of the gambler's fallacy—something *we* can see is a fallacy even if most do not.

Some performance errors may be systematic, for example, those based on learned or hardwired rules of thumb applied in cases where they breakdown. Implicit and explicit theories or models running interference likewise may be systematic sources of error, particularly among neophytes, and may also vary with social, cultural and educational background. Affective reactions can be expected to be a source of error in

some cases that may affect a majority in a group of respondents. Some sources of this may be relatively universal and some due to cultural and social factors. Group think will be a source of relativity of response to groups. These would be an ineluctable source of error, however, only if it were impossible to adopt a more reflective approach which disengaged the mechanism in favor of drawing on competence solely in the application of the relevant concepts.

One of the ways that surveys of ordinary people and undergraduates can help us understand better the sources of error in responding to thought experiments is through suggesting in what cases there might be errors involving affective responses, implicit theories, or rules of thumb. Where there are significant differences across groups, we should be looking for some systemic source of error, either in performance or understanding. This has the potential to help even professional philosophers in guarding against the pitfalls our enterprise is subject to.

8. Conclusion: Intuitions and A Priori Knowledge

Intuitions are judgments that express antecedent competence in the concepts involved in them. They are therefore veridical, and it follows that intuitions are not relative to cultures, socio-economic status, times, the ways questions are presented, or anything else, and this is demonstrable a priori. The remaining methodological issues in the face of variation in response to scenarios described in thought experiments are made more tractable by having the right target in view, for it puts us in a position to set out the various ways in which we can go wrong so that we can guard against them, and it gives us a guarantee that, as we possess the concepts in question, we are able to make the right judgments. Differences in responses to questions about scenarios in thought experiments across cultural or socio-economic groups reflect not differences in intuitions but rather systematic differences in how the task, scenarios or questions are understood or in performance errors between groups. The utility of such results lies in their indicating such factors, the further investigation of which may be of help to philosophers in their professional practice. There is no ground here for any general skepticism about the use of intuition in philosophical analysis or the results that philosophers reach on that basis. By and large, where there is a deep and wide enough consensus among philosophers about the appropriate responses, we can feel fairly confident that philosophers have got it right. Where there is not, we can be confident that there are further subtleties to be uncovered, but have no reason to be discouraged from trying to uncover them.

Notes

- [1] They say it is preposterous presumably because they think that the correct epistemic norms are universal. This raises the question, given their methodological stance, how they know the correct epistemic norms are universal. If a posteriori, what is the nature of the evidence? If a priori, what is its source if not the one they seek to discredit?

- [2] In the philosophical literature, these cases are not presented as involving a forced choice between the subject knowing or only believing. The Gettier cases, for example, are designed to elicit judgments about the distinction between knowledge and justified true belief. The cases are described so as to make clear that the agents have justified true belief. The question is specifically whether in addition to having justified true belief that p they know that p . When the choice offered is between only believing and knowing, it may well be that some respondents choose knowing rather than only believing as the least misleading of the two.
- [3] In a study involving a version of Dretske's zebra case, students surveyed from the Indian subcontinent split evenly between the two choices, while students from a western background split 70/30. But this isn't a case that allows one to say, by our criterion, that the norms vary with culture, for the evidence does not give a clear indication of what norms to assign to those from the Indian subcontinent.
- [4] It is not clear, of course, why the variation in responses across groups is to be counted as evidence for variation in norms while the variation within groups is not. If the variation within groups were treated as evidence for variation of norms, then of course the claim that there are different epistemic norms in different cultures or socioeconomic groups would have to be given up. We would get instead the conclusion that the same norms are present in the various groups, but adhered to by different proportions of people. One might respond that the variation within groups is to be explained by ascribing not different norms to different subgroups but by ascribing one or another sort of error to members of the smaller subgroup. But then it would be unclear why the same strategy would not be appropriate for explaining the differences between cultural and socioeconomic groups.
- [5] An obvious potential confounding factor is whether a greater number of respondents in the Low SES group were smokers than in the High SES group. Since it is well-known that cigarette smoking prevalence rates vary inversely with educational attainment (Dube, Asman, Malarcher, & Caraballo, 2009), one would expect this to be so, on the assumption that the selection was effectively random, which is required anyway for the result to be representative.
- [6] Goldman, in his response to the original publication of this article (2001, p. 475), argued that there is no clear connection between these cases about knowledge and any conclusions about J-rules. But for the general question of whether intuitions are a reliable means of pursuing inquiry into the application conditions of concepts, this doesn't matter.
- [7] See, for example, Bealer (1996, 1998).
- [8] To put it more formally: For any p , if p is prime and greater than any other prime, then if n is the product of the series of primes up to p plus 1, then some prime q is such that n is divisible by q and the difference between n and the series of primes up to p is divisible by q and the difference between n and the series of primes up to p is not divisible by q . Therefore, it is not the case that there is any p such that p is a prime and greater than any other prime.
- [9] Christian Nimtz has suggested that appeal to Euclid's proof involves commitment to a controversial mathematical Platonism. However, accepting the proof would commit one to Platonism only in conjunction with a commitment to a realistic interpretation of the language of mathematics. But in any case, the use of the example can be reclaimed by conditionalizing on the claim that the natural numbers exist, for even a nominalist who accepts a Platonist interpretation of mathematics will accept that if the natural numbers exist, there is no greatest prime number, and that Euclid's proof establishes that. Still, if I claim that I have intellectual intuitions about the proof's premises and steps but admit that argument could persuade me that there are no numbers, does that not make appeal to intuitions look methodologically suspect? If I am right that what we aim to elicit in asking after intuitions are judgments expressing conceptual competence, then it would show that we can make mistakes about whether judgments we make are solely based on conceptual competence. This is something we know already though; whether it is a serious problem depends on whether we can sort out where we have made mistakes.

- [10] On this use of ‘concept’, concepts are not psychological entities, structures in the head, words in the language of thought, Platonic forms, natural kinds, or the like. Concept talk is a way of keeping track of what’s common between different thoughts. When John thinks there is no greatest prime and Susan thinks that there is a greatest prime, they have different thoughts, but they each have a thought in which the concept of a prime number is deployed. So far as the issues that concern us go, concept talk may be treated as a convenient shorthand for a more elaborate account of shared underlying features of agents and their thoughts and relations to the world and language in terms of which we attribute concepts to them.
- [11] I am indebted here to Ivana Simić (2009).
- [12] Intuitions are not evidence for what they are about. Are they evidence for analyses we formulate on their basis? Though in some cases we engage in a process analogous to abductive reasoning, I think it is a mistake to treat intuitions as evidence even in these cases, though there is not room to go further into this here.
- [13] One might suggest here that I arrive at the judgment that it is possible that I not exist by way of a general proposition about the contingency of certain types of beings and an empirical proposition to the effect that I am a being of that type. The schematic idea would be that I know intuitively that any F is a contingent existent; I know empirically that I am an F; and that I thereby conclude that I am a contingent existent. What is the relevant substitution for ‘F’, however? Is it that I am a spatial being? I believe that, but my judgment that I exist contingently would survive suspension of belief about being a spatial being. Is it that I am a temporal being? But it is much less clear that a temporal being must be contingent than that I am contingent, and so it seems doubtful that this is the source of the judgment. The same applies to being a thinking, conscious, or finite being.
- [14] This case, if admitted as an intuition, raises the question whether all intellectual intuitions are based solely on competence in the concepts deployed in them, for it is clearly not the case that we think that any judgment of the form ‘it is possible for x not to exist’ is true in virtue of the concepts deployed in it. We do not, for example, accept that it is possible for \emptyset not to exist.
- [15] The qualification is important. There are other legitimate uses of ‘intuition’ in philosophy. For example, when R.M. Hare talks about moral intuitions, he does not have in mind judgments which express conceptual competence but judgments which reflect rules of thumb or prima facie principles we have inculcated as the best ways of dealing with the practical difficulties of judging what it is right to do on various occasions (1981, chapters 2 & 3). Even in the context of a priori inquiry, there are distinct uses. When Gödel spoke of mathematical intuition, he did not have in mind a capacity to make judgments based on concepts of mathematical objects, but a faculty that enabled direct insight into mathematical reality on analogy with perception (Gödel, 1964, pp. 271–272).
- [16] While talk of conflicting intuitions provides some prima facie evidence against the straightforward account of intellectual intuition as an expression of conceptual competence I have offered as what is clearly our goal in performing thought experiments, it is not evidence that philosophers engaged in conceptual analysis have ever thought that any sort of spontaneous judgment in response to a thought experiment is an intuition. For example, someone who answers a question spontaneously about whether someone in a scenario had done something wrong on the basis of a racial stereotype would not be credited with having an intuition about the case at all. It cannot be emphasized enough how out of touch with philosophical practice is the idea that any spontaneous judgment in response to a thought experiment is an intuition.
- [17] What about the semantic and set-theoretic paradoxes, or the sorites arguments, where it can seem that one has intuitions that lead to a contradiction? The short answer is: if you arrived at a contradiction, you didn’t start solely with intuitions. But an adequate treatment of this is beyond the scope of this paper.
- [18] See notes 2 and 5 in this connection as well.

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