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# INTUITION AND ITS CRITICS

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## 1 Introduction

The term “intuition” has a long history in philosophy, and it has had many different meanings (Osbeck and Held 2014). As Jaakko Hintikka (1999) noted, the term was rarely used in twentieth-century analytic philosophy until Noam Chomsky and his followers popularized its use in linguistics. In Chomskian linguistics, an intuition is a spontaneous judgment about the grammatical properties or relations of sentences. The linguist proposes one or more sentences and asks a question about them: Is this sentence grammatical? Are these two sentences related as active and passive? The person whose intuitions are being probed finds that an answer almost immediately comes to mind, though typically she has never heard the sentences before and is aware of no conscious reasoning about them. The linguistic intuition is the judgment the speaker makes.

For Chomsky and his followers, intuitions are used as evidence about the grammar of the speaker’s “I-language” – the language whose rules are actually represented in the speaker’s mind (Chomsky 1986). Though the rules of the I-language are not consciously accessible, Chomskian linguists assume that, when things go well, the rules are used by the language processing system to infer the answer to the grammatical question that the linguist has posed.<sup>1</sup> But, of course, things do not always go well. Failure to pay attention, limits on short-term memory, and a host of other factors can cause a speaker to make “performance errors” leading to intuitions that do not accurately reflect what the speaker’s mentally represented grammar actually says about the sentences.

A similar practice has played an important role in philosophy since antiquity. The philosopher describes a hypothetical situation and asks whether the people, objects, or events described have some philosophically interesting property or relation. When things go well, the person to whom the question is posed finds that an answer almost immediately comes to mind, though she has never considered the hypothetical situation before and is aware of no conscious reasoning about it. Philosophers quickly noted the similarity between this practice and the one used by Chomsky and his followers, and the term “intuition” became

widely used for the spontaneous judgments that people make about philosophical thought experiments. That is how we will use the term here.<sup>2</sup>

## 2 Two ways intuitions are used as evidence in philosophy

During the decades prior to the emergence of Chomskian linguistics, Logical Positivists and “ordinary language” philosophers argued that philosophers’ main job is conceptual analysis. On one influential account, concepts are mentally represented packets of information that characterize a category or an individual, though the details of these mentally represented packets are typically not consciously accessible (Goldman 2007, 2010). The strategy of assembling intuitions about thought experiments – sometimes called “the method of cases” – was widely used by philosophers as a way of gathering evidence about philosophically interesting concepts, and some philosophers have justified the use of this strategy along lines that are quite similar to the Chomskian justification of the use of linguistic intuitions as evidence about a mentally represented grammar. Here is how Alvin Goldman makes the point:

It’s part of the nature of concepts ... that possessing a concept tends to give rise to beliefs and intuitions that accord with the contents of the concept. If the content of someone’s concept F implies that F does (doesn’t) apply to example x, then that person is disposed to intuit that F applies (doesn’t apply) to x when the issue is raised in his mind.

(Goldman 2007, 15)

On views like the one Goldman is endorsing, intuitions are appropriately used as evidence about the extension or the content of a person’s concepts. Thus, for example, suppose that Dannisha reads a thought experiment about a runaway trolley that is about to kill five innocent people. By throwing a switch a bystander could redirect the trolley to another track where it would kill only one innocent person. After hearing the story, Dannisha is asked whether it is morally permissible for the bystander to throw the switch and redirect the trolley, and she has the intuition that it is morally permissible. For Goldman, and for those who hold similar views, this would count as evidence that the action described is included in the extension of Dannisha’s concept of moral permissibility.

There is another family of views according to which philosophical intuitions are often appropriately used in projects that are importantly different from conceptual analysis. On views of this sort, intuitions are frequently used as evidence for or against theories about philosophically important phenomena, like knowledge, justice, causation, and moral permissibility, not some person or group of people’s concepts of these things. In “Philosophical Theory and Intuitional Evidence,” Goldman and Pust distinguish two different kinds of “targets” of philosophical analyses or theories:

Broadly speaking, views about philosophical analysis may be divided into those that take the targets of such analysis to be in-the-head psychological entities versus outside-the-head non-psychological entities. We shall call the first type of position mentalism and the second extra-mentalism.

(1998, 183)<sup>3</sup>

Concepts – mentally represented packets of information – are among the leading targets of mentalist analyses, and as we have seen, there is a plausible story to be told about why intuitions can be used as evidence in conceptual analysis. Implicit or tacit theories are another, closely related, target of mentalist philosophical analyses (Jackson, Mason, and Stich 2008). Philosophers who take implicit theories to be the targets of their analyses also claim that these theories play a role in generating (or as Jackson puts it, “driving”) our intuitive classifications. So it is clear why intuitions are taken to be good evidence about tacit theories.

In contrast to mentalist targets, the exact nature of the targets of extra-mental analyses is less than clear. Goldman and Pust discuss three possibilities: (i) universals or Platonic Forms (like the Platonic Form of knowledge or of justice); (ii) modal truths (like the putative fact that it is possible for a belief to be justified and true, but not an instance of knowledge); and (iii) natural kinds. Moral facts or moral truths are another important target of extra-mental analysis that Goldman and Pust do not mention (see, e.g., Audi 2013).

What all of these have in common is that the correctness or incorrectness of an extra-mental theory does not depend on what is in the head of a person whose intuitions are used as evidence. When an extra-mental theory takes knowledge or moral permissibility as its target, the goal is to specify what knowledge really is, or what really is morally permissible. And when philosophers engaged in extra-mental projects use intuitions as evidence, they assume that the content of the intuition is likely to be true. If we have the intuition that the protagonist in a Gettier thought experiment does not know the proposition that is the focus of the experiment, then it probably is the case that he does not know that proposition. So an extra-mental analysis of knowledge that entails that the protagonist does know the proposition is challenged, while an analysis that entails the protagonist does not know is supported. Similarly, if we have the intuition that it is morally permissible for the protagonist in the trolley case to throw the switch that will divert the trolley, then it probably is morally permissible.

Goldman and Pust (1998) are skeptical about this strategy of using intuition as evidence for extra-mental philosophical analyses, because we have no good account of how the content of intuitions could be reliably linked to the facts about Platonic Forms, or natural kinds, or modal and moral truths that the extra-mental theory seeks to capture. We agree; it is indeed puzzling how the contents of intuitions could provide reliable evidence about these extra-mental facts. But for most of human history, perception posed a comparable mystery, and the appeal to intuition in mathematics still does. Thus we do not think that the fact that we have no account of how intuitions about philosophical thought experiments could be reliably linked to the extra-mental facts that are the targets of philosophers' analyses provides a compelling reason to be skeptical about the use of intuitions as evidence in these projects.

### **3 The experimental philosophy critique of using intuitions as evidence for extra-mental theories**

Over the last dozen years, the emerging field of experimental philosophy has provided what we believe to be a much better reason to be skeptical about the use of intuitions as evidence for extra-mental theories. Recall that when philosophers use intuitions as evidence for extra-mental theories, they assume that intuitions are likely to be reliable indicators of the truth

about the extra-mental phenomenon they are studying. But recent findings in experimental philosophy have cast doubt on the reliability of some philosophical intuitions by demonstrating, in a growing list of cases, that intuitions vary between demographic groups, and that they are influenced by other factors that are obviously irrelevant to the truth of the content of the intuition. Though space does not permit a detailed discussion of these studies, we will offer a brief overview of what we take to be some of the more important findings.

### ***3.1 Studies showing that philosophical intuitions vary across demographic groups***

In one of the first experimental philosophy studies, Weinberg et al. (2001) reported that the epistemic intuitions of American students whose cultural background is East Asian are significantly different from those of students whose cultural background is European, though this finding has since been challenged by a number of authors (for a detailed discussion, see Machery et al. 2015; see also Starmans and Friedman 2013; Nagel, San Juan, and Mar 2013a; Kim and Yuan 2015; Seyedsayamdost 2015a). More recently, Starmans and Friedman (2012) have shown that, in a range of cases, the epistemic intuitions of non-philosophers differ from the epistemic intuitions usually reported by philosophers (but see Nagel, San Juan, and Mar 2013b). And in a particularly striking study, Starmans and Friedman (2014) find that among academics, intuitions about knowledge are influenced by one's academic discipline. In a series of studies, Machery and colleagues have shown that the sort of semantic intuitions that philosophers have used as evidence for theories of reference differ across cultural groups (Machery, Mallon, Nichols, and Stich 2004; Machery, Olivola, and De Blanc 2009; but see Lam 2010, and Sytsma and Livengood 2011 for non-replications with modified materials). In ethics, Ahlenius and Tännsjö (2012) have found cross-cultural differences in intuitions on trolley cases, and in a very well designed study, Abarbanell and Hauser (2010) found cultural differences in intuitions relevant to the act versus omission distinction. More recently, Fessler et al. (2015) report substantial variation in contextual contingency in moral judgment across seven societies. Buckwalter and Stich (2014) survey a number of findings suggesting that some philosophical intuitions vary with the gender of the participant (for further data, including non-replications of some earlier findings, see Adleberg, Thompson, and Nahmias 2015 and Seyedsayamdost 2015b). Colaço, Buckwalter and Stich (2014) found that epistemic intuitions vary with the age of the participants. Feltz and Cokely (2009) and Schulz, Cokely, and Feltz (2011) report that intuitions about free will and responsibility depend on one's personality, specifically on whether one is an introvert or an extrovert. Tobia (2016) finds that intuitions about the strength of arguments in the philosophy of religion vary with respect to the intuiter's commitment to theism or atheism. To sum up, philosophical intuitions have been found to vary with culture, academic discipline, gender, age, and personality. Of course, the degree, scope, and replicability of these findings remain open to further empirical study.

### ***3.2 Studies showing that philosophical intuitions vary with language***

Vaesen, Peterson, and Van Bezooijen (2013) found that a cluster of epistemic intuitions elicited from philosophers differed depending on their native language. Native English

speaking philosophers had different intuitions from those whose native language was Dutch, German, or Swedish, though all the participants were fluent in English and all the thought experiments used to elicit the intuitions were presented in English. Costa et al. (2014) found that the moral intuitions of participants who read experimental vignettes in their native language were different from the moral intuitions of participants who read the vignettes in one of their non-native languages. They found this striking effect across five groups of native/non-native speakers: English/Spanish, Spanish/English, Korean/English, English/French, and English/Hebrew.

### ***3.3 Studies showing that philosophical intuitions vary with the order in which the thought experiments are presented***

In an early study, psychologists Petrinovich and O'Neill (1996) found that participants' moral intuitions varied with the order in which the vignettes were presented. Similar findings have been reported by Liao, Wiegmann, Alexander, and Vong (2012), Wiegmann, Okan, and Nagel (2012), and Schwitzgebel and Cushman (2011). The Schwitzgebel and Cushman study is particularly striking, since they set out to explore whether order effects in moral intuitions were smaller or non-existent in professional philosophers. Surprisingly, they found that this is not the case, even though the thought experiments used were well known to most professional philosophers. They also report that in some cases philosophers' intuitions show substantial order effects when the intuitions of non-philosophers do not! Order effects have also been reported for epistemic intuitions (Swain, Alexander, and Weinberg 2008; Machery et al. forthcoming) and for intuitions about intentional action (Cushman and Mele 2008; Feltz and Cokely 2011).

### ***3.4 Studies showing that philosophical intuitions are subject to framing effects***

As we use the term, a framing effect is an effect produced by a minor feature of the wording or presentation of a thought experiment that is irrelevant to the substantive issue being explored. Since the pioneering work of Tversky and Kahneman (1981), there has been an explosion of interest in the phenomenon in psychology, economics, political science, and elsewhere (Sunstein 2005; Kahneman 2011, ch. 34). Framing has been reported in moral philosophy thought experiments by Petrinovich and O'Neill (1996) and by Nadelhoffer and Feltz (2008) who found that some moral intuitions are subject to an "actor-observer effect" – participants' intuitions about moral permissibility were affected by whether the moral scenario is presented in the second person or the third person. Tobia, Buckwalter, and Stich (2013a) found that actor-observer framing can also affect the moral intuitions of philosophers. Nahmias, Coates and Kvaran (2007) and Nichols and Knobe (2007) report striking framing effects in intuitions about free will and responsibility. In a very different vein, both Weinberg and colleagues (Weinberg, Alexander, Gonnerman, and Reuter 2012; Gonnerman, Reuter, and Weinberg 2011) and Tobia and Stich (unpublished) have found that participants' intuitions about epistemological thought experiments are affected by the font in which the thought experiment is presented. In the Tobia and Stich study, the effect was found both in ordinary folk and in professional philosophers.

### ***3.5 Studies showing that philosophical intuitions are affected by the physical and social environment in which the intuition is elicited***

There is now a growing body of research reporting that intuitions evoked by moral thought experiments are affected by factors like dirty pizza boxes and a whiff of fart spray (Schnall, Haidt, Clore, and Jordan, 2008a), the use of soap (Schnall, Benton, and Harvey 2008b) or an antiseptic handwipe (Zhong, Strejcek, and Sivanathan 2010), or even the proximity of a hand sanitizer dispenser (Helzer and Pizarro 2011). Tobia, Chapman, and Stich (2013b) found that the moral intuitions of both students and professional philosophers are affected by spraying the questionnaire with a disinfectant spray. Valdesolo and DeSteno (2006) reported that viewing a humorous video clip can have a substantial impact on participant's moral intuitions. And more recently, Strohminger, Lewis, and Meyer (2011) have shown that hearing different kinds of audio clips (stand-up comedy or inspirational stories from a volume called *Chicken Soup for the Soul*) has divergent effects on moral intuitions.

### ***3.6 The implications of these experiments for the use of intuitions as evidence for extra-mental theories***

The problem that these findings pose for philosophers who use intuitions as evidence for extra-mental theories is obvious. In each case it appears that participants' intuitions are varying as a function of some variable that is not relevant to the extra-mental phenomenon being investigated. Thus some of these intuitions must be unreliable. The point was made nicely by Walter Sinnott-Armstrong in a paper that reviewed the literature on order effects in moral intuitions.

The truth about what is morally right or wrong in the cases did not vary with [the order in which they were presented]. Hence moral [intuitions] fail to track the truth and are unreliable insofar as they are subject to such order effects.

(Sinnott-Armstrong 2008, 67)

Similarly, the truth about the nature of knowledge, moral permissibility, reference, intentionality, and free will does not depend on the personality or cultural background of the person asked about these things, or on whether she is a native speaker of English, has just seen a funny video clip, or is standing near a dispenser for hand sanitizer. So to the extent that intuitions vary with these irrelevant factors, they are not a reliable source of evidence.

Though we have not yet mentioned it, there is another feature of most of the studies we have cited that poses a further problem for the use of intuitions as evidence for extra-mental theories. We have been focusing on findings indicating that intuitions vary across groups of different sorts or across experimental conditions. However, in all of these studies there is considerable variation within groups and within conditions. Participants with the same cultural background disagree about whether the protagonist in a Gettier case has knowledge; participants who see funny video clips disagree about whether it is morally permissible to push a large man off a footbridge to prevent a runaway trolley from killing five other people; participants who are presented with the second-person version

of a moral thought experiment disagree about what is morally required. Some of this disagreement may simply be experimental noise, resulting from participants not understanding the thought experiment, not paying attention, interpreting important words in different ways, or making mistaken assumptions about what the experimenter really wants them to do (cf. Sosa 2007a, 2009). But to the extent that these within-group and within-condition disagreements reflect genuine differences in intuition, they pose an obvious problem for philosophers who would use these intuitions as evidence about extra-mental phenomena, since some of these intuitions must be mistaken.

#### **4 The implications of experimental philosophy findings for the use of intuitions as evidence for mentalist theories**

With one important exception, what we have said about extra-mentalist projects applies, *mutatis mutandis*, to mentalist projects as well. In mentalist projects, intuitions are used as evidence about the concept or tacit theory that putatively plays a central role in generating the intuition. The assumption underlying the use of intuitions as evidence in these projects is that a person's intuitions are a reliable source of evidence about whether her concept applies to cases set out in thought experiments, or about what her tacit theory entails about the cases. But when the presence of dirty pizza boxes or hand sanitizers influences people's intuitions, this assumption cannot be correct, since whether one of a person's moral concepts applies to the behavior recounted in a thought experiment, or what the relevant tacit theory entails about that behavior, does not vary with presence of pizza boxes or hand sanitizers. Nor does the application of a concept to cases depend on the order in which the cases are encountered or on the font in which the thought experiment is printed.

The situation is importantly different for demographic differences, since evidence of demographic differences in intuition suggests that people in different demographic groups have different tacit theories or different concepts. So, for example, Starmans and Friedman's finding that people in different academic disciplines have different intuitions about whether the protagonists in epistemic thought experiments know a specified proposition may indicate that people in different disciplines have different concepts of knowledge. And the discovery, by Abarbanell and Hauser (2010), that the moral intuitions of rural Tzeltal-speaking Mayans are not sensitive to the distinction between actions and omissions suggests that the tacit moral theory of these Mayans is importantly different from the tacit moral theory of American and European internet users who reported quite different intuitions in response to similar moral thought experiments. While these are fascinating findings, they pose no problem for the use of intuitions as evidence for mentalist theories, though they make it clear that philosophers pursuing mentalist projects should specify whose concepts or tacit theories they are analyzing. Of course, philosophers who engage in conceptual analysis often want to use their analyses in a variety of other projects. And if there are different concepts of knowledge or reference or moral permissibility in different demographic groups, then a philosopher who wants to use one of these concepts must specify which demographic variant she is invoking, and why that one is a better choice than the variants used in other demographic groups. Underscoring the need to address questions like this is, we believe, one of the most valuable contributions of experimental philosophy.<sup>4</sup>

## 5 Responses to the experimental philosophy challenge

The findings surveyed in Section 3 pose a challenge to the use of intuitions as evidence in both mentalist and extra-mental projects. In this section we will consider two sorts of responses to that challenge. The first focuses on the alleged expertise of professional philosophers. The second proposes more restrictive accounts of philosophical intuition.

### 5.1 Three versions of the “expertise defense”

One common response to the experimental philosophy critique of using intuitions as evidence is the claim that the experimental findings, however interesting they may be, tell us nothing about actual philosophical practice, because the experiments use the wrong participants. Experimental philosophers typically collect data about the intuitions of students in classrooms, or internet users, or people in public places. In a few studies, data have been collected from indigenous people in remote corners of the world. But when professional philosophers use intuitions to test their theories, they do not use those intuitions. Rather, they use their own intuitions and the intuitions of other professional philosophers. And, the critics continue, this is entirely appropriate, because professional philosophers are experts at dealing with philosophical thought experiments. When we rely on intuition in other fields, ranging from medicine to physics to chess, it is rational to attend to the intuition of experts and ignore the intuition of untrained amateurs. The same is true in philosophy. So studies of the philosophical intuitions of people untrained in philosophy pose no threat at all to standard philosophical methodology.<sup>5</sup>

It is important to note that there are several different ways in which this “expertise defense” can be elaborated. One of them, suggested in the following quote from Horvath, maintains that the intuitions of professional philosophers are significantly less likely to be influenced by irrelevant factors like order of presentation, framing, or ambient odors.

Why should professional philosophers grant ... that their own intuitions about hypothetical cases vary equally with irrelevant factors as those of the folk? Surely, no chess grandmaster, mathematician or physicist would grant anything remotely like that to an experimental psychologist.

(Horvath 2010. Cf. Nado 2014)

Two other versions of the expertise defense maintain that the philosophical intuitions of professional philosophers are more likely to be accurate than the intuitions of untrained folk. For philosophers pursuing extra-mental projects, the claim is that the content of philosophers’ intuitions are more likely to be true, while for philosophers engaged in mentalist projects the claim is that philosophers’ intuitions are more likely to correctly reflect what their concept or tacit theory actually entails about the case at hand.

The first version of the expertise defense, which predicts that philosophers’ intuitions are less likely to be influenced by irrelevant factors, has been the focus of a number of recent experimental studies. In our survey of the literature, in Section 3, we mentioned most of these studies; none of them confirm the prediction made by this version of the expertise defense. Indeed, to the best of our knowledge, there are no studies confirming

that prediction. Rather, what this growing literature suggests is that philosophers are no less susceptible to language effects, order effects, framing effects, and environmental effects than non-philosophers. Of course, it is possible that the studies done so far are outliers, and that future studies will support those who urge this version of the expertise defense. But at this point, we think it is fair to say that their prediction does not look promising.

Michael Devitt has been by far the most indefatigable defender of the second version of the expertise defense – the version that focuses on extra-mental projects and maintains that the contents of philosophers' intuitions are more likely to be true (Devitt 2011a, 2011b, 2015). In a series of papers, he has set out a theoretical framework that, he argues, makes it plausible that philosophers' intuitions will be more accurate than those of ordinary folk – at least in the philosophy of language.<sup>6</sup> But Devitt acknowledges that this theoretical framework must ultimately be tested empirically. And, to his credit, he has designed and conducted a series of experiments intended to do just that. Unfortunately, by his own admission, the experiments were a complete failure (Devitt 2015). Perhaps Devitt or others will ultimately design better experiments. But for now the version of the expertise defense that claims that in the philosophy of language, the contents of philosophers' intuitions are more likely to be true has no empirical support. Things are no better in other areas of philosophy. Indeed, we find it hard to imagine how one might empirically test the claim that the contents of philosophers' moral or metaphysical or epistemological intuitions are more likely to be true than those of ordinary folk. So we are not surprised that no one has tried.

The situation is much the same for the third version of the expertise defense, which claims that philosophers are better than non-philosophers at intuiting what their concepts actually entail about a case. Conceivably clever psychologists or philosophers could design experiments to test this claim. But we suspect that the conceptual and empirical challenges would be daunting. So here, too, we are not surprised that no one has tried. A decade ago, Machery and colleagues (2004) said that the claim that philosophers' intuitions are superior to those of non-philosophers “smacks of narcissism in the extreme.” It still does.

## ***5.2 Restrictive accounts of philosophical intuition***

We have been working with a very inclusive account of philosophical intuitions modeled on the Chomskian account of linguistic intuitions. Philosophical intuitions, we have been assuming, are immediate responses to questions about whether the people or objects or events in philosophical thought experiments have some interesting philosophical property or relation; they are accompanied by little or no conscious reasoning. In adopting this account, our goal has been to do justice to what Williamson memorably describes as the “promiscuous role the term [‘intuition’] plays in the practice of philosophy” (Williamson 2007, 218). However, many philosophers have urged much more restrictive accounts of philosophical intuitions. One motive for constructing more restrictive accounts is to defend the use of intuitions as evidence in philosophy by explaining why intuitions (narrowly defined) are likely to be trustworthy. Another, closely linked, motive is to fend off the challenge posed by experimental philosophy. If the experiments are not eliciting the sort of judgments that comport with the restrictive characterization of intuitions that the author has proposed, then they pose no threat

to the evidential use of the narrower class of intuitions. One author who clearly shares both motives is Kirk Ludwig. According to him,

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 as judgments or beliefs which are the product of our competence in the deployment of the concepts involved.

(Ludwig 2010, 433; emphasis in the original)

For Ludwig, a judgment or belief that is influenced by factors other than conceptual competence will not count as an intuition. Among those factors, surely, are many that were investigated in the experimental studies surveyed in Section 3. A judgment that is influenced by order of presentation, or font size or fart spray is not solely the expression of conceptual competence. Thus when intuitions are characterized in this way, the studies pose no challenge to the use of intuitions as evidence in philosophy. But we are inclined to think that in making this move, Ludwig is hoist on his own petard. For the effects discussed in Section 3 are almost always covert; people have no conscious awareness that their beliefs or judgments are being affected. So on Ludwig's restricted account, the only way to determine whether one's beliefs or judgments are intuitions is to do well designed and carefully controlled experiments. Rather than showing that the experimental studies are irrelevant to philosophical practice, Ludwig's restricted account of intuition leads directly to the conclusion that the sorts of studies that experimental philosophers have undertaken are required before we can begin to use intuitions as evidence, since without such studies we have no way of knowing which of our beliefs or judgments are intuitions.<sup>7,8</sup>

While some authors who propose restricted accounts of intuition want to fend off the experimental philosophy challenge by characterizing a set of judgments or beliefs – or “seemings,” as Sosa (2007b) prefers to describe them – that are immune from the sort of irrelevant influences that the experimentalists have documented, Cappelen (2012) takes a more radical approach. He offers an account of intuition that is so restrictive that he can find no evidence that philosophers ever actually use intuitions. And, of course, if philosophers do not use intuitions, then the experimentalists' challenge is irrelevant to philosophical practice. The feature that does most of the work for Cappelen is the one he calls “Rock.” As Weinberg (2014) notes,

[Cappelen] claims that [Rock] is a special kind of epistemic status – “special” recurring frequently in the book, whenever he discusses it – one that is immediate, “glowing”, “privileged”, and highly controversial. It is a kind of justification so fundamental, unshakable, indubitable, that an author's saying pretty much anything at all in defense of p, even expressing any hesitancy about whether to endorse p, or about what p's significance might be, is a clear sign that p lacks Rock... .

That Rock is so freaky and fragile, and so completely absent in all of the case studies [that Cappelen presents] ... should have been a sign not to attribute Rock to intuition theorists in the first place. Cappelen adduces almost no textual evidence to support his claim that “most intuition theorists” take intuitions to have this feature.

Since neither philosophers who defend the use of intuitions as evidence nor those who challenge this use show any inclination to accept Cappelen's radically restrictive account of what they have in mind, we think his claim that philosophers do not actually use intuitions as evidence can safely be ignored.<sup>9</sup>

## 6 The take-home message

In Section 3, we reviewed a number of studies indicating that a substantial list of philosophical intuitions vary across demographic groups and that they are influenced by a number of *prima facie* irrelevant factors, ranging from language and order of presentation to smells, fonts, and funny video clips. We went on to argue that these findings cast doubt on the use of these intuitions as evidence for extra-mental theories. In Section 4, we argued that many of the findings also challenge the use of these intuitions as evidence for mentalist projects. Some writers, most notably Jonathan Weinberg and Joshua Alexander, have urged that these findings justify a thoroughgoing skepticism about the use of intuitions as evidence in philosophy (Alexander and Weinberg 2007; Weinberg 2007; Weinberg and Alexander 2014). But we think this conclusion is much too strong.

A growing body of evidence suggests that intuitions in different areas of philosophy are subserved by different psychological and neurological mechanisms (Nado 2011). And in at least one area of philosophy, *viz.*, ethics, there is evidence that intuitions about different questions (e.g., blame, responsibility, and punishment) derive from different mental mechanisms (Cushman 2008; Cushman and Young 2009). This work strongly suggests that philosophical intuition is not a natural kind. Thus, the discovery that intuitions about an issue in one branch (or sub-branch) of philosophy are influenced by some irrelevant factors gives us no reason to think that intuitions about issues in some other branch or sub-branch of philosophy will also be influenced by that factor, or by any other irrelevant factor.

The skepticism about the use of intuitions as evidence that we voiced in Sections 3 and 4 should be directed primarily at intuitions that have been shown to be susceptible to irrelevant influences, and at other intuitions that are the product of psychological mechanisms that are likely to be vulnerable in similar ways. And which are these? The answer is that at this point we do not know, and we are not going to find out without a great deal more sophisticated work in psychology and neuroscience. On our view, this sort of research should be viewed as quite central to experimental philosophy. So the take-home message from this chapter is not that intuitions should not be used as evidence in philosophy. Rather, it is that experimental philosophy, broadly construed, has a crucial role to play in assessing and improving philosophical methodology.

## Notes

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- 1 For a recent challenge to this Chomskian assumption, see Devitt (2006). For replies, see Antony (2008) and Longworth (2009).
  - 2 "Intuition" was used by twentieth-century philosophers before Chomsky – particularly by ethicists. Until Chomsky, however, "intuition" was used much less frequently in philosophy of mind, philosophy of language, metaphysics, and epistemology. See Pust (2000, ch. 1) for examples of the use of intuitions as evidence in philosophy. Alexander (2012, ch. 1) and Pust (2000, ch. 2) provide

useful overviews of competing accounts of the nature of philosophical intuitions, and Andow (2015) offers some impressive quantitative evidence that there was indeed a dramatic increase in the use of the term “intuition” in philosophy starting about 1970.

- 3 In more recent work, Goldman (2010) abandons the “mentalist” and “extra-mentalist” terminology. We continue to use it because it provides suggestive labels for two broad conceptions of philosophical analysis.
  - 4 For more on this theme, see Mallon, Machery, Nichols, and Stich (2009) and Machery, Mallon, Nichols, and Stich (2013).
  - 5 For views in this vicinity, see Williamson (2005, 2011), Ludwig (2007), Horvath (2010), Grundmann (2010), and Devitt (2011b).
  - 6 Devitt (2011a, 427) extends the claim to a range of metaphysical intuitions, and in talks he has extended the claim to intuitions in epistemology and ethics as well (personal communication, 28 August 2014).
  - 7 In his chapter in this volume, Ludwig again insists that “not every response to a question on a survey about a scenario expresses an intuition. The survey data then is not straightforwardly data about intuitions. To use surveys for traditional philosophical purposes, we need to filter responses that are not intuitions ...” (Ludwig, this volume, 388). Though he is less explicit here than in Ludwig (2010) about what sort of “filtering” is required, he would presumably insist that spontaneous judgments influenced by order of presentation, or dirty pizza boxes, or proximity of a hand sanitizer dispenser do not count as intuitions, as he prefers to use the term. And since that influence is rarely obvious, it seems that the philosopher, as Ludwig portrays him, must begin by doing experimental philosophy. How else can Ludwig’s philosopher reliably “filter responses that are not intuitions”?
- Ludwig is also rather cavalier in his claims about what other philosophers would count as intuitions. Many “experimental philosophers,” he tells us, “have simply misunderstood the sort of intuition (or judgment) sought in philosophical thought experiments. They are not ‘spontaneous judgments ... for which the person making the judgment may be able to offer no plausible justification’ ...” (Ludwig, this volume, 388; the embedded quote is from Nichols, Stich and Weinberg 2003, 19). However, as Yuri Cath notes, both Nelson Goodman and David Lewis seem to endorse this account of intuitions, or perhaps something even more permissive (Cath forthcoming). Perhaps Ludwig would not count Goodman and Lewis as philosophers.
- 8 A similar situation confronts the “conceptualist” view of thought experiments that Grundmann espouses in his contribution to this volume. On Grundmann’s view,

conceptualism ... gives a much more parsimonious explanation of philosophical thought experiments. Concepts do not only have conditions for their correct application, they are also plausibly associated with application dispositions of those who possess them. With respect to a particular class of concepts, the so-called semantically transparent concepts, application conditions and application dispositions match each other across possible worlds, at least under ideal circumstances. If this story is basically correct for key philosophical concepts, we can use our application dispositions to determine the extension of a concept across possible worlds and thereby, inductively, gain an understanding of the essence of the concept’s referent

(Grundmann, this volume, 305)

Grundmann is careful to note that “application dispositions” (which are a close kin of what we have been calling “intuitions”) can only be used in this way under ideal circumstances. And while Grundmann does not pause to tell us what ideal circumstances are, it seems reasonable to suppose that application dispositions that are influenced by irrelevant factors like order of presentation or proximity to a hand sanitizer dispenser are not being studied under ideal circumstances. Since the influence of irrelevant factors is often covert, the methods of experimental philosophy will have to play an important role in Grundmann’s conceptualist program.

- 9 In their chapter in this volume, Cohnitz and Häggqvist, citing Langkau, note a very different reason to be skeptical of Cappelen’s claim that philosophers do not use intuitions as evidence. Cappelen takes the fact that a philosopher argues for a claim to be strong evidence that the philosopher is not

treating the claim as having “Rock” status. But as Langkau observes, there are a number of reasons why an author might offer an argument for a claim, even though she did take it to have “Rock” status. It might, for example, “be required in order to get a paper published” (Langkau forthcoming, cited in Cohnitz and Häggqvist, this volume, 419).

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