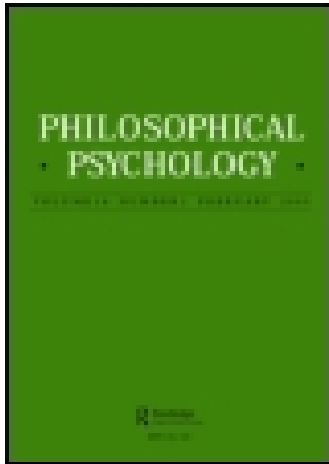


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Philosophical expertise and scientific expertise

Jennifer Nado

The “expertise defense” is the claim that philosophers have special expertise that allows them to resist the biases suggested by the findings of experimental philosophers. Typically, this defense is backed up by an analogy with expertise in science or other academic fields. Recently, however, studies have begun to suggest that philosophers’ intuitions may be just as subject to inappropriate variation as those of the folk. Should we conclude that the expertise defense has been debunked? I’ll argue that the analogy with science still motivates a default assumption of philosophical expertise; however, the expertise so motivated is not expertise in intuition, and its existence would not suffice to answer the experimentalist challenge. I’ll also suggest that there are deep parallels between the current methodological crisis in philosophy and the decline of introspection-based methods in psychology in the early twentieth century. The comparison can give us insight into the possible future evolution of philosophical methodology.

Keywords: Experimental Philosophy; Expertise Defense; Intuition

1. Introduction

Philosophy is experiencing a period of unprecedented methodological reflection. Experimental techniques drawn from the social sciences are increasingly being used to study the time-worn philosophical practice of consulting intuitions about imagined cases—and the results of these investigations have been more than a little distressing. Empirical work suggests that intuitive judgment may be riddled with bias and subject to inappropriate sensitivity to irrelevant factors such as emotional state. In light of such apparent epistemological failings, several authors have suggested that philosophical methodology needs to be dramatically revised. Intuition, they claim, can no longer play a central role in philosophical argumentation.

Unsurprisingly, numerous philosophers have resisted this conclusion. Responses have occasionally attempted to directly combat the empirical conclusions, but lately a

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more common tactic has been to claim that the studies are simply irrelevant. Since the subject pools for such studies are standardly composed of non-philosophers, the studies can (it's claimed) at best reveal epistemological failings in the intuitive judgments of non-philosophers. Professional academic philosophers, by contrast, are experts—we should expect their judgments to be more reliable than those of the common folk. Typically, this “expertise defense” is backed up by an analogy with other academic fields; professional physicists, for instance, are assumed to have special expertise, and therefore a similar assumption should be granted for professional philosophers.

Recently, however, new studies using philosophers as subjects have begun to suggest that philosophers' intuitive judgments may be just as subject to inappropriate variation as those of the folk, thereby casting serious doubt on the expertise defense. Should we conclude that philosophers, unlike physicists, are no more expert than untrained subjects? Such a conclusion would have devastating implications for philosophy as a profession, but fortunately the empirical findings do not warrant it. In fact, I'll argue that the analogical argument invoked by proponents of the expertise defense still motivates a default assumption of philosophical expertise. Though the general tendency has been to assume that the expertise so motivated is expertise in intuition, I will suggest that the analogy is much more successful at motivating non-intuitive forms of expertise. But proponents of the expertise defense should not rejoice—for analogies with other fields, particularly the sciences, can also directly motivate the experimentalist claim that philosophical methodology needs serious modification.

2. The Experimentalist Challenge and the Expertise Defense

The expertise debate is a response to what I'll call the “experimentalist challenge” to intuition-based methodology¹—a form of argument that came to prominence with a well-known study by Weinberg, Nichols, and Stich (2001) which suggested that there may be substantive variation between Western and East Asian subjects on intuitive reactions to Gettier cases. Since then, further studies have provided extensive evidence which appears to indicate that intuitive judgments on philosophical cases are sensitive not only to cultural background (e.g., Machery, Mallon, Nichols, & Stich, 2004), but also to socioeconomic status (Haidt, Koller, & Dias, 1993; Nichols, Stich, & Weinberg, 2003), order of presentation (Swain, Alexander, & Weinberg, 2008), emotional state (Schnall, Haidt, Clore, & Jordan, 2008; Wheatley & Haidt, 2005), gender (Buckwalter & Stich, 2014), and more.²

The “challenge” presented by these findings is as follows: Given that intuitive case-judgments appear to frequently vary as a function of extraneous factors, they may well turn out to be insufficiently reliable to serve as a source of evidence for philosophical claims. Several of the papers mentioned above suggested that we take this possibility very seriously, claiming that intuition's role in philosophical methodology should be dramatically revised in light of the troubling findings. Subsequently, an extensive literature surrounding the epistemological status of intuition has arisen, and a variety of defenses of the use of intuition in philosophy have emerged.

Proponents of the “expertise defense” suggest that experimentalists have illicitly assumed that the variation that has been found with untrained subjects will also hold for the intuitive judgments of trained, professional philosophers. On the contrary, the defenders claim, trained philosophers are able to “apply general concepts to specific examples with careful attention to the relevant subtleties” (Williamson, 2007, p. 191). Philosophers have developed “normative knowledge gained through reflective participation in ordinary concept-using practices” (Kappuninen, 2007, p. 97); they have learned “skills in responding to questions about described scenarios on the basis of one’s competence in concepts involved” (Ludwig, 2007, p. 138). By contrast, the defenders claim, untrained subjects are more likely to imperfectly grasp the relevant concepts, to be insufficiently attentive, or to be influenced by, for example, pragmatic factors (Cullen, 2010; Kappuninen, 2007). The moral, according to proponents of the expertise defense: Findings from studies using non-philosophers as a subject pool cannot challenge philosophical method, because they cannot be generalized to professional philosophers.

Of course, whether or not philosophers in fact have the skills attributed to them by proponents of the expertise defense is an empirical claim. Yet, defenders have generally not offered experimental data demonstrating that philosophers have the superior abilities they hypothesize.³ Instead, their strategy has been to claim that the existence of philosophical expertise should be the “default” assumption; the burden of proof is on the experimentalist to show that it does *not* exist. Almost invariably, this claim is motivated by appeal to an analogy with science, with mathematics, or with other intellectual fields. Williamson (2011), for example, draws the following comparison:

Consider the hypothesis that professional physicists tend to display substantially higher levels of skill in cognitive tasks distinctive of physics than laypeople do. The hypothesis could be tested by systematic experiment. But even before that has happened, one can reasonably accept it. (p. 220)

It’s clear that professionals in domains like physics are granted a “default” assumption of expertise. Therefore, Williamson claims, philosophers are entitled to the same assumption. A similar argument appears in Horvath (2010):

Why should professional philosophers grant to the experimental restrictionist 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. (p. 464)

Further examples appear in Devitt (2011), Hales (2006), and Ludwig (2007). In each case, the author points to the presumed existence of expertise in extra-philosophical fields to provide justification for the assumption that philosophers possess special expertise, as well—and then further suggests that this philosophical expertise defuses the experimentalist challenge.

In response to such claims, experimental philosophers have recently begun to put the existence of philosophical expertise to direct empirical test. Within the last few years, a handful of suggestive studies have been performed using philosophers as a subject group—and results so far, by and large, appear to vindicate the

experimentalists. Schwitzgebel and Cushman (2012), for instance, have found that philosophers were no less susceptible to order effects on moral scenarios than non-philosophers; Schulz, Cokely, and Feltz (2011) found that philosophers' judgments on moral scenarios varied as a function of heritable personality traits; Tobia, Buckwalter, and Stich (2013) found that philosophers' moral judgments are subject to framing effects; and Vaesen, Peterson, and Van Bezooijen (2013) found philosophers' intuitive judgments to vary as a function of native language. By contrast, studies indicating increased expertise in professional philosophers are still lacking.

Though responses from defenders have yet to emerge, it's tempting to view this data as fairly decisively undermining the arguments offered by defenders of expertise. Indeed, Schulz et al. write that their findings "suggest that, in at least some important cases, the expertise defense fails" (2011, p. 1722). However, such a conclusion would be too quick—even putting aside possible worries about replication. The studies mentioned above have indicated that philosophers may exhibit biases in their immediate reactions to philosophical thought experiments when presented in survey contexts. But this is not, in and of itself, sufficient to invalidate the expertise defense. It is possible, for example, that philosophical expertise consists in certain special skills that in some way mitigate the effect that the observed biases ultimately have on developed philosophical theories (as opposed to one-off, immediate judgments in response to experimental probes). If such skills are deployed only, say, during extended reflection, then we should not expect them to be evident in the experimentalist findings. This possibility adds a troublesome complication to the expertise debate. While the experimentalist strategy thus far has primarily consisted of an extension of their subject pools to include philosophers, this approach threatens to overlook a wide range of potential forms that philosophical expertise might take.⁴

To my eyes, the temptation to read the studies above as a direct refutation of the expertise defense stems from a tendency—discernible on both sides of the debate—to cast the expertise question solely in terms of *improved intuition*. Defenders of expertise tend to characterize their hypothesized philosophical expertise as some form of improvement in intuitive judgment (Williamson is a notable exception). Experimentalists who have attempted to empirically test for expertise have generally framed their results as casting doubt on the existence of such an improved intuitive capacity. But this focus on intuition is somewhat odd, given that it is in no way essential to the expertise defense; philosophical methodology obviously consists in much more than the gathering of intuitive judgments, and there are therefore many potential loci for philosophical expertise.

Indeed, there's a compelling reason to avoid framing the expertise debate in terms of intuition—there's simply no agreement on what exactly an intuition is. The most common characterization, at least among experimentalists, is something like the following: Intuitions are judgments made in the absence of introspectively obvious conscious reasoning, of more or less the same sort as those elicited in reaction to thought experiments. I'm inclined to think that this is about as close as one can get to successfully characterizing intuition, yet it leaves out states that many defenders of expertise might hold to be genuine intuitions—for instance, one often sees mention of

“reflective intuitions,” which on the above definition would appear to be something of an oxymoron. Further, Williamson (2007) convincingly argues that the evaluation of thought experiments involves several different cognitive capacities, many of which overlap with capacities used in non-philosophical tasks. Consequently, he questions the assumption that there even exists some peculiarly philosophical category of “intuition.” Cappelen (2012), Deutsch (2010), and Nado (2012) are similarly skeptical of the focus on “intuition” within methodological debates. A move away from the “improved intuition” account of philosophical expertise therefore seems prudent.⁵

In fact, as I’ll argue in the following section, the standard intuition-centered approach to the “argument from analogy” obscures important differences between expert “intuitions” in non-philosophical fields, on the one hand, and judgments in response to philosophical thought experiments, on the other. A non intuition-based version, by contrast, would plausibly actually succeed in motivating the existence of some form of philosophical expertise. Unfortunately, motivating the existence of philosophical expertise is only the first step in a successful expertise defense. Even given a rehabilitated “argument from analogy,” we still face substantive further questions as to the *nature* of the expected expertise, and the implications its existence would have for the challenge posed by the experimentalist findings.

As noted above, there are possible forms of philosophical expertise that would vindicate the expertise defense, even in the face of the experimental evidence just discussed, due to the fact that they would be plausibly inoperative in normal experimental contexts. Unfortunately, it’s rather difficult to experimentally test for an ability that is inoperative in normal experimental contexts. Thus, for the moment, the likelihood of such forms of expertise is indeed best assessed through consideration of analogies with other fields. Ultimately, I’ll argue that even a rehabilitated argument from analogy fails to motivate any form of philosophical expertise that would suffice to mitigate biases indicated by the experimentalist studies. Nonetheless, this in no way renders philosophical expertise useless or uninteresting. In the concluding portions of the paper, I’ll claim that philosophers plausibly possess several forms of expertise, and that this expertise gives philosophers substantial scope for optimism even in the face of our apparent failings.

3. The Intuition-Based Analogical Argument

As mentioned in the previous section, the dominant strategy for motivating the expertise defense has been to appeal to an analogy between philosophy and other disciplines where expertise is uncontroversial—since physicists obviously display expertise, we have reason to believe that philosophers do too. It’s been generally assumed that the expertise so motivated would consist in improved intuition,⁶ and it was further generally assumed that this improved intuition would result in philosophers displaying reduced variation on the relevant experimental tasks. The latter assumption, of course, seems to have failed. With enough ingenuity, however, a defender might insist that the former assumption is untouched by the failure of the

latter—perhaps claiming that the experiments just discussed failed to elicit “genuine” intuitions. But this skirts a crucial question: Were these additional assumptions really warranted by the analogy in the first place?

The details of the analogical argument are, in fact, open to multiple possible interpretations. The most basic version would be this: Scientists (e.g.) possess some form of scientific expertise, and therefore philosophers can be expected to possess some form of philosophical expertise. This version is, however, obviously too weak; it does nothing to motivate the idea that the expected expertise should involve, *specifically*, a resistance to the particular biases that appear to exist in folk reactions to thought experiments. The idea that practitioners of academic disciplines generally develop special expertise is credible, but this tells us very little about the form that expertise will take. And it in no way eliminates the possibility that there will be areas where experts perform just as poorly as novices.

On the most popular approach, by contrast, the analogy appeals not merely to the existence of *some* form of special expertise in other fields, but specifically to the existence of *improved intuitions* in other fields. Thus, our license for assuming improved intuition in philosophers would be due simply to the fact that we assume that physicists have superior physical intuitions, that mathematicians have improved mathematical intuitions, and so forth. This version is explicitly endorsed by Devitt, by Hales, and by Horvath, each of whom refers to the existence of improved intuitions in other fields. Though this version of the analogical argument might initially seem to rectify the weakness of the “basic” version, it in fact results in a much weaker analogy—and for reasons independent of the experimentalist findings demonstrating biases among philosophers.

Though much ink has been spilled over the characteristics and evidential role of philosophical intuition, parallel discussion of expert intuitions in other fields is rather more sparse. Suppose, then, that we consider some plausible examples of improved intuitions in other fields. On a rough and ready understanding of ‘intuition’, one might reasonably claim that experimental evidence suggests that physicists display improved intuitions in their domain. When asked to predict the trajectories of moving objects, naïve subjects frequently give predictions that resemble those of outdated pre-Newtonian mechanics—for instance, predicting that a ball carried by a runner would fall straight down when dropped rather than continuing to travel forward. Subjects with training in physics, on the other hand, are less prone to such errors (see McCloskey, 1983 for an overview); we might thus suggest that they possess improved physical intuitions. Similarly, Ludwig (2007) appeals to a plausible case of what might be called improved intuition among mathematicians. He notes that no mathematician would feel troubled by the discovery that naïve subjects judge that the series of natural numbers contains more members than the series of odd positive integers. We would of course expect trained mathematicians to show improved performance when judging such a case.

On closer consideration, however, it isn’t clear whether these judgments can be uncontroversially counted as intuitions. In the case of the “folk physics” experiments just mentioned, the reported judgments of *naïve* subjects do quite likely reflect

something like intuitions in the sense of immediate, unreflective judgment discussed in section 2. But it's not at all clear that the judgments of the expert subjects fit this characterization. Though the expert judgments are immediate, they are not unreflective, for they are in a fairly clear sense mediated by explicit beliefs and theories acquired in the classroom. A similar point applies to Ludwig's mathematicians; it seems clear that any improvement would be due to explicitly learned principles and arguments acquired during the course of mathematical education, rather than to an improvement in some capacity for unreflective immediate judgments.

Of course, as noted earlier, some defenders of expertise might be quite comfortable with the idea of something like "reflective" intuitions, and might claim that the expert judgments in these cases should be classed as such. It could be argued that the "improved intuitions" of the physicist or mathematician *consist in* something like the influence of appropriate explicitly learned beliefs on immediate reactions to cases. This would fit well with a view like that of Devitt (2011), who argues that intuitions are empirical and theory laden, and that expert intuitions are preferable precisely because of the influence of explicit knowledge acquired through experience or education. The appeal to analogy could then motivate the assumption that philosophers, too, possess explicit knowledge that in some way improves immediate judgments even on previously unencountered cases—just as a physicist would be expected to be capable of correct trajectory predictions on previously unencountered cases.

Such a strategy, however, would face a clear difficulty. To successfully respond to the experimentalist challenge, the hypothesized influence of explicit beliefs would have to be such that it could potentially mitigate the sorts of biases that have been uncovered in naïve subjects. There are, however, no obvious principles acquired during philosophical training which would plausibly correct for, say, emotional biases; potential sources of biases in judgment are almost never even discussed during philosophical training. The experiments conducted on philosophers generate a further difficulty for this strategy—assuming, that is, that the findings prove to be robust. Even if we *could* pinpoint an explicitly learned principle that could plausibly combat the observed biases, it would have to be such that its influence is somehow inoperative in the experimental contexts in which philosophers have been tested—otherwise, why would the philosophers nonetheless exhibit biases? Presumably, however, any accumulated influence of past learning *would* be operative in the aforementioned experimental contexts, just as a physicist's accumulated knowledge is clearly operative in the experiments discussed above.

Moreover, there is a crucial psychological dissimilarity lurking. It is overwhelmingly plausible that the physicist or mathematician has *explicit access* to the knowledge which results in her improved immediate judgments; if asked, the physicist could provide the mechanical principles underlying projectile motion, and the mathematician could explain how the notion of one-to-one correspondence can be used to compare infinite series. By contrast, philosophers generally seem to have no explicit awareness of the exact mechanisms by which they supposedly avoid bias in intuition. Indeed, unlike the judgments of the physicist or mathematician,

philosophical judgments in response to thought experiments are often frustratingly opaque in a quite general sense. Were such judgments as transparent as the cardinality judgment of the mathematician, we likely could have avoided, for instance, several decades of post-Gettier literature—the principles underlying our judgments would simply have been consciously available, and straightforwardly articulable. This further points to a crucial *methodological* difference between the “improved intuitions” of the physicist and mathematician, on the one hand, and the sorts of judgments elicited by thought experiments on the other. The defender of expertise typically wants to maintain that a philosophers’ intuitive case-judgments can be used as evidence to support philosophical claims or theories; the experimentalist challenge, by questioning the reliability of such judgments, is seen as threatening this practice.⁷ The physical and mathematical judgments we’ve been considering, however, do *not* play an evidential role in their respective disciplines. The physicist does not appeal to his or her trajectory-judgment to support his or her theory of motion; the support goes the other way round. Mutatis mutandis for the mathematician’s judgment comparing infinite sets.

There are, then, some important differences between the mathematical and physical judgments we have been considering and the sorts of judgments defenders of expertise wish to claim as evidence. Evidence of expertise in the former doesn’t obviously support an inference to expertise in the latter. That’s not to say that these examples of “expert intuition” entirely fail to motivate any form of philosophical expertise, however. Arguably, the cases just discussed motivate something like improved performance in (e.g.) judging whether the truth of rule utilitarianism would entail that such-and-so action is morally permissible, or in judging what the truth of the causal-historical theory of reference would entail about the reference of ‘Madagascar’. Improved performance on such tasks would clearly consist in the impact of explicitly learned principles or theories on judgment, in a way transparent to the experts (that is, in a way that enables the experts to articulate the principles that lead them to judge as they do). And such a judgment in and of itself would not serve as evidence for the theory—rather, the theory is the basis for the judgment. Of course, it is extremely plausible that philosophers do in fact possess this form of expertise. Further, such expertise plays an important role in philosophical theorizing—an ability to successfully determine the consequences of a given theory is of course crucial to a great deal of philosophical argumentation. But it is also obvious that the existence of such expertise does not serve to meet the experimentalist challenge.

4. Mending the Analogical Argument

If the cases discussed above are representative (and I believe that they are), then the most obvious instances of “improved intuitions” among experts in other disciplines do not very strongly motivate any sort of philosophical expertise that would suffice to meet the experimentalist challenge. If this is right, then the standard approach to the expertise defense fails, regardless of one’s interpretation of the recent experimental

findings on philosophers.⁸ Rather than responding to those findings by retreating to reflective intuition while retaining an intuition-based version of the argument from analogy, proponents of expertise would do better to reformulate their argument. It's possible that a non intuition-based version of the analogical argument could fare better; but, as has already been noted, a version that appealed merely to the existence of *some* form of expertise in other fields would simply be too weak to answer the experimentalist challenge. We might, however, consider a third version.

Williamson offers a version of the analogical argument that appeals, not to intuition, but to the fact that we “normally assume that professional academics in a discipline tend to display substantially higher levels of skill in its distinctive cognitive tasks than laypeople do” (2011, p. 220). Drawing out the analogy, this would suggest that we should expect philosophers to exhibit improved performance on any cognitive task distinctive of philosophy. Assuming that responding to thought experiments is a cognitive task distinctive of the discipline of philosophy, this version of the analogy would support the existence of philosophical expertise on that task—thus potentially providing a response to the experimentalist challenge. But depending on what is meant by ‘distinctive’, Williamson’s own views at first glance appear to fit poorly with such an assumption. After all, Williamson aims to “subsume the epistemology of thought experiments under the epistemology of counterfactuals and metaphysical modality . . . thereby to reveal it as an application of quite ordinary ways of thinking, not as something peculiarly philosophical” (2007, p. 180). Nor can the “distinctiveness” of thought experimentation come from its philosophical content—according to Williamson, judgment on the Gettier case “involves the same capacity to classify empirically encountered cases with respect to knowledge as we use when, for example, we classify a politician as not knowing the truth of his claims about terrorists” (2004, p. 112). If Williamson is right, then the process of conducting a thought experiment invokes ordinary concept application abilities and ordinary capacities for evaluating counterfactuals. Neither of these is distinctive of philosophy.

Williamson’s points here are plausible; the blurriness of the boundary between philosophical thought experimentation and everyday cognition is, in fact, one reason to abandon the idea that philosophical expertise consists in improvement in that elusive capacity known as “philosophical intuition.” Thus, I’d suggest that this difficulty raises trouble not just for Williamson, but for any defender of expertise that might be tempted to appeal to the notion of a discipline’s “distinctive tasks” to ground a reformulated argument from analogy. Unfortunately, absent something like an appeal to the “distinctive tasks” of disciplines, we’re left with no further obvious proposals for how to reformulate the argument from analogy such that it motivates expertise in thought experimentation. And without expertise in thought experimentation or expertise in intuition, it seems the experimentalist challenge will go unanswered.

Perhaps a distinction might be made which would circumvent the problem. The cognitive *capacities* involved in evaluating a thought experiment are not themselves distinctive of philosophy; they are quite ordinary and employed in a great many extra-philosophical endeavors. But it’s possible that the actual *task* of evaluating a thought

experiment is distinctive. We might make a comparison with observation and experimentation in science. Observation is a cognitive capacity that is ubiquitous in all facets of everyday life and is employed in, but not unique to, experimentation; experimentation itself is a task distinctive of the sciences. The relevant locus of scientific expertise is not observation in a general sense, but rather the distinctive task of experimentation. Similarly, the relevant locus of philosophical expertise is not the cognitive capacities involved in, but rather the task of, thought experimentation.

Though I think this is in fact the right way to conceptualize philosophical expertise, I don't think it will ultimately get the defenders of expertise what they want—namely, a response to the experimentalist challenge. For suppose that we pursue the observation/experimentation comparison a bit further. As is well known, there is abundant empirical evidence that non-scientists are prone to a myriad of deficiencies in observational abilities, running the gamut from near-sightedness to confirmation bias. Notice that when such evidence came to light, it presented a legitimate challenge to experimental methodology—despite any default presumption that scientists possessed expertise in the task of performing experiments. It was not epistemically permissible for scientists to dismiss evidence of deficiencies until provided with specific indication that they, too, suffered from such failings; rather, it was incumbent on scientists to alter their methodology as evidence of deficiencies emerged, developing methods to compensate for the various weaknesses in uncontrolled, unaided observation.

To my mind, the current situation in philosophy may well be more or less similar. The sorts of judgments made in response to thought experiments arise, as Williamson claims, from quite ordinary capacities for, e.g., concept application; it's plausible that the observed biases reflect deficiencies in these ordinary capacities to which philosophers will also be subject. The default presumption of expertise in thought experimentation does not necessarily extend to such deficiencies, any more than a default presumption of expertise in scientific experimentation suggests that scientists will be less likely than the general population to require corrective lenses. The experimentalist can happily accept Williamson's claim that philosophers are experts in thought experimentation, while still maintaining that the case of observational biases demonstrates that deficiencies observed in the general population can legitimately threaten a methodology in which the general population possesses no expertise.

Of course, scientists have since risen to the challenge presented by deficiencies in unaided observation—they have developed specific, sophisticated techniques to compensate for areas of weakness. The use of rulers, scales, microscopes, and so on are obvious examples, but so are bias-removing techniques such as double-blinding and randomization. In this sense, then, the scientists' expertise in experimentation *does* insulate them from the observational deficiencies to which non-experts are subject. If philosophers can point to similar compensatory procedures, then the expertise defense is potentially vindicated. *Potentially*, that is, because the empirical data that initially problematized the expertise defense still remain. Given the indications that philosophers' immediate responses to thought experiments are subject to bias, any

compensatory procedures would have to be such that they were plausibly inoperative in the relevant experimental contexts.⁹

Do such compensatory procedures exist? Weinberg (2009) has argued that they do not, and *prima facie*, this claim seems accurate; at the very least, there are no obvious analogs to scientific compensatory procedures. No measurement apparatus exists to quantitatively assess the judgments elicited by thought experiments, for instance, and no analog to a microscope exists to increase their range or accuracy. With regard to bias reducing procedures, things seem equally bleak. Though philosophers occasionally pay lip service to the possibility of theoretical commitments biasing their judgments, it's exceedingly rare for a philosopher to actually attempt to control for such possibilities (by, e.g., presenting the relevant cases to naïve subjects).¹⁰ And, most importantly for our purposes, there is no general expectation that a philosopher will employ any explicit procedures to control for the sorts of potential interfering factors (order, emotional state, etc.) that the experimentalist challenge focuses on. Indeed, as already noted, the potential influence of those factors is generally never brought under discussion at all.

Williamson suggests that expertise in thought experiments consists at least in part in "careful attention to details in the description of the scenario and their potential relevance to the questions at issue" (2011, p. 216). Other defenders of expertise have offered similar proposals. It's not at all clear, however, that a sort of improved capacity for attention to detail would necessarily serve as a compensatory procedure of the sort that's needed. Consider a medical researcher's ability to attend to small variations on an ECG and to understand their relevance to his or her study; this ability doesn't shield him or her from, say, experimenter bias. Further, it's not clear why this ability should be inoperative in the experimental contexts in which philosophers have been tested. Elsewhere, Williamson appeals to blind review in journal publications as an analog of double-blind procedures in science (2009). But again, it's not at all clear that this is a sufficient compensatory procedure. Blind review in science publishing is no substitute for blinding in experimental design; why should it suffice to combat biases in thought experimentation?

Here the defender of expertise might argue that it is reflection, argumentation, and dialog that form the appropriate analog for the scientist's microscope and scale. The idea would be that philosophers compensate for weaknesses in their immediate reactions to thought experiments by checking their judgments against other philosophers, or simply through extended reflection on those judgments. *Prima facie*, this approach has some promise—particularly because reasoning and argumentation are plausibly minimized in the experimental contexts in which philosophers have appeared to exhibit bias. Thus, it could be argued that philosophers are especially skilled in reflection and argumentation, and that these skills operate at a later stage of philosophical inquiry to minimize the effect of bias emerging from immediate judgments.

One potential trouble, however, is that reflection and dialog don't seem to precisely fit the role we're considering—that is, a role analogous to blinding procedures in science. In scientific experimentation, blinding procedures are employed at the stage

of initial data gathering to prevent contaminated data. If we view immediate judgments made in response to thought experiments as providing data (and many philosophers have—e.g., Cummins, 1998; Sosa, 2010),¹¹ however, then reflection and dialog are not procedures employed during “data gathering.” Argumentation about and reflection on one’s immediate judgments can only occur after the judgments have already been produced. Thus, these processes seem to be a closer analog to the stage of data analysis in science or to the development of a theoretical model.

It is true that data analysis in science can involve removal of erroneous data points—for instance, via the removal of outlying data points. But if significant bias has affected the initial gathering of data, such techniques will generally not suffice to correct the error. It’s wholly plausible that the same holds of thought experiment “data” in philosophy. Reflection can of course remove some problematic data, such as in cases where our reactions are inconsistent. But it’s not at all obvious that deep cultural biases, for instance, would be correctable in such a manner—reflection might even reinforce such biases rather than remove them. That’s not to say that it’s impossible for reflection to serve as a corrective—but it seems clear that the burden of proof here is on the defender of expertise to demonstrate that it does.

Some suggestions along these lines have been floated. As an example, several authors have proposed that philosophical training gives philosophers an improved ability to detect pragmatic effects, ambiguities, and other sorts of performance errors (see for instance Horvath, 2010; Kauppinen, 2007). Yet, the actual details of such hypothesized abilities are often left rather vague. I would hazard to guess that most philosophers would not be able to explain in any detail the exact procedures they use to ensure that they are not misled by pragmatic cues during the evaluation of a thought experiment. By contrast, any well-trained scientist can explain the procedures for and motivation behind double-blind trials. Moreover, scientific methods for offsetting bias have generally been developed as an explicit *reaction* to the discovery of the prevalence of those very biases. Yet proponents of the expertise defense seem to suggest that we had already developed correctives for biases in philosophical judgment before those biases even came to light. Again, it is *possible* that established methodology suffices to mitigate the biases experimental philosophy has uncovered—but comparisons with the highly specialized, explicitly articulated procedures employed by the sciences make this seem fairly unlikely.

Note that none of this requires us to reject the claim that philosophers have expertise in thought experimentation. In fact, it’s plausible that a “distinctive tasks” version of the argument from analogy motivates *some* form of expertise in thought experimentation. Such expertise may well consist in something like an increased ability to attend to relevant details, and this may even improve performance, even if it is unlikely that it will offset bias. Fortunately for experimentalists, they do not need to claim that philosophers perform no better than novices; the experimentalist challenge consists in (or, *should* consist in) bringing to light specific biases that have not been addressed by current methodological procedures. Similarly, philosophers might be expected to excel at the distinctively philosophical task of *generating* careful thought experiments; they are, for instance, capable of constructing scenarios which

successfully isolate crucial variables of interest—as in the well-known trolley/footbridge pair. This is more or less analogous to the scientist's skill at designing experiments which successfully control for confounding variables. But of course, as skillfully constructed as the trolley/footbridge pair is, it does not obviously guard against the sorts of variation experimentalists are concerned with—when conducting a psychological experiment, after all, a well-designed set of experimental and control test questions in no way compensates for the absence of bias-reducing techniques such as double-blinding.¹²

To summarize, a “distinctive tasks” version of the argument from analogy would plausibly motivate the existence of philosophical expertise more successfully than the standard intuition-based version; however, the experimentalist can plausibly respond to the “distinctive tasks” version of the analogical argument by comparing the biases that have been found in folk judgment to observational biases in science. In science, such biases immediately presented a *prima facie* challenge to scientific methodology—no specific experimentation to demonstrate their presence among scientists was required. Though scientists presumably possessed expertise in experimentation prior to the discovery of these biases, that expertise did not suffice to remove the challenge. Instead, scientists were required to develop specific, sophisticated techniques to compensate. It is rather implausible that philosophers have yet developed any parallel compensatory techniques.¹³

5. Philosophical Expertise: From Intuitions to Methodology

I've argued that the intuition-based version of the argument from analogy does not, at least *prima facie*, succeed in motivating any sort of expertise that could be expected to lead to reduced problematic variation. While other versions of the argument may well motivate certain types of philosophical expertise, none of these forms of expertise seem to address the particular concerns of the experimentalists, either. Now I'd like to suggest that it's possible to turn the analogical argument fully on its head, using a comparison with the sciences to motivate the need for methodological improvement. In this final section, I'll argue that the methodological situation currently faced by philosophers has a parallel within the history of science—one with suggestive implications for the ultimate fate of current methodological debates.

Weinberg (2007, 2009) has more than once mentioned the demise of introspectionism in psychology as an example of an unsalvageably flawed scientific methodology, suggesting that philosophy might share the same fate. In fact, I'd like to suggest that this comparison is even more apt than Weinberg lets on, especially in the context of the debate over philosophical expertise. For one of the primary flaws in the introspectionist method was its supposition that the expertise of its practitioners would overcome deficiencies to which untrained subjects were thought to be sensitive.

Psychologists of the introspectionist school considered introspection to be the primary, indispensable source of evidence for the contents and workings of the mind;

psychology without it was impossible. Yet they also held that not just any individual was qualified to provide such data. The proponents of introspectionism, particularly those in the circle of E. B. Titchener, were insistent on the importance of expertise in their experimental subjects. Wundt was rumored to require his subjects to perform 10,000 introspective observations before they were considered sufficiently trained (Boring, 1953); Titchener wrote a training manual for experimental introspection which ran in excess of 1,000 pages (1901–1905). As a result of the rigorous training expected, in many cases the experimental subjects employed were researchers themselves or their students—and the number of subjects was, consequently, rather low.

Crucially, much of the responsibility for the quality of the data was left internal to the introspector, rather than being subject to external experimental controls. Training was thought to provide the subject with increased capacity for attention, the ability to properly distinguish such facets of experience as “tonal intensity” and “tonal clearness,” and enhanced ability to avoid confusions such as “stimulus error”—the tendency to describe the object experienced as opposed to the experience itself. This description of introspective expertise should hit uncomfortably close to home when we consider current expressions of the expertise defense; to my ears, it closely resembles such descriptions of philosophical expertise as, e.g., Williamson’s claim that philosophers can “apply general concepts to specific examples with careful attention to the relevant subtleties” (2007, p. 191). Significantly, though, the method of introspection was viewed by its proponents as wholly analogous to more established scientific methodologies, and to involve analogous expertise—Titchener writes that “the training of which I have spoken, as necessary to a systematic introspection, is essentially the same as the training necessary to reliable observation in physics or biology” (1912, p. 446).

As is well known, the introspectionist methodology floundered on certain intractable disagreements. The most famous of these involved the debate over the existence of imageless thoughts, or *Bewußtseinslagen*. While the Würzburg laboratory reported that their introspectors could discern such phenomena in the stream of consciousness, Titchener’s group claimed that their own introspectors found no such thing. (It is worth noting that Titchener’s own theoretical commitments required the inexistence of any mental process devoid of sensory content.) Another example can be found in the introspective studies devoted to the “flight of colors”—the sequence of colored afterimages experienced after exposure to bright light. Though Titchener claimed that his introspectors settled on a consistent sequence, e.g., from blue to red to green, other researchers reported uncovering a rather different sequence (Schwitzgebel, 2011). Quite plausibly, one of the key difficulties leading to these problematic disagreements was the very training the introspectionists insisted upon. In the process of training, introspectors likely internalized the theories held by those in their laboratory—these theoretical commitments may then have biased their judgments, increasing the likelihood that the introspectors’ reports would confirm the favored theory.

Ultimately, the persistence of variable results famously inspired condemnation by the proponents of the emerging behaviorist movement. Watson's mocking take on the introspectionists' reaction to said variation is telling:

Psychology, as it is generally thought of, has something esoteric in its methods. If you fail to reproduce my findings, it is not due to some fault in your apparatus or in the control of your stimulus, but it is due to the fact that your introspection is untrained. The attack is made upon the observer and not upon the experimental setting. In physics and in chemistry the attack is made upon the experimental conditions. The apparatus was not sensitive enough, impure chemicals were used, etc. In these sciences a better technique will give reproducible results. Psychology is otherwise. If you can't observe 3–9 states of clearness in attention, your introspection is poor. (1913, p. 163)

In other words, Watson noted that the existence of variation in introspective data was explained away by appeal to insufficient expertise on the part of the rival observers, rather than taken as an indication of a flaw in methodology. This was a convenient but ultimately unsuccessful argumentative move. As inconsistencies and disagreements accumulated, behaviorism gained in popularity and the introspectionist methodology gradually faded from prominence.

What parallels can we draw with the current methodological crisis in philosophy? The introspectionists were faced with variable findings between laboratories; philosophers are apparently faced with variable judgments between professionals and naïve subjects. In both cases, the variation was dismissed (at least by some practitioners) as a product of insufficient expertise in one group. In the case of the introspectionists, confidence in their special expertise led them to neglect certain biases since, arguably, their expert judgments were nonetheless subject to inappropriate influence by their own particular theories. We might thus argue by analogy that philosophers are committing a similar error—their confidence in their own training may be leading them to neglect the possibility of bias in their reactions to thought experiments.

Note that, in the case of the introspectionists, their rigorous training may well have given them some areas of genuine improved expertise. Schwitzgebel (2011), for instance, argues that Titchener-style introspective training may well have resulted in improvements over naïve introspective abilities (which he holds to be rather poor); however, he also emphasizes the probable limitations of such training. Indeed, it's certainly possible that introspective training may have successfully improved, say, attention span; but this specific form of expertise would not obviously prevent the theoretical biases that led to laboratory-centered disagreements. As I have argued, a parallel situation likely holds for philosophy. There are several areas where philosophers plausibly have expertise when compared to naïve subjects; however, this is compatible with the continued influence of biases that philosophers have not yet developed procedures to control. It is worth noting Schwitzgebel's comment that the introspectionists' training procedures were "never tested adequately" (2011, p. 90); he subsequently refrains from an unqualified endorsement of their effectiveness. He thereby implies that, at least in certain contexts, empirical confirmation is necessary before experts can be confident that their training suffices to offset

deficiencies to which non-experts are subject. I would urge that the same hesitation is appropriate for current philosophical methodology.

The attacks on introspectionist methodology by behaviorists may have led to an overly premature rejection of the movement; it's possible that, given time, practitioners of introspectionism might have developed more careful methods for combating bias. Suppose, then, that the movement had persisted, and that it had achieved a greater awareness of the methodological issues—would studies of naïve introspectors have been irrelevant to methodological debates over the use of introspection in psychology? It seems clear that they would not; such studies might serve to uncover new deficiencies for which current training methods did not suffice. Again, we have reason to suppose that a similar attitude with respect to experimental studies of thought experimentation is appropriate.

And, of course, we can note that the demise of introspectionism did not lead psychologists to permanently abandon introspection. It is true that psychological experimentation has moved away from the introspectionist model of researcher-as-subject, towards the more familiar practice of employing large groups of naïve participants; and it is true that closer attention is now paid to external controls on the gathering of data, and to non-introspection-based sources of evidence. But introspection is in no way absent from current psychological methodology—its use persists in such domains as psychophysics and, indeed, to some degree in any area relying on verbal reports. The difference is that its use is now more tightly controlled and unaccompanied by the old trappings of exclusive expertise. Thus, it's worth noting that the experimental challenge need not entail the radical revolution envisioned by the more ambitious experimentalists; thought experimentation is quite likely to continue to play an important role in philosophy.

Finally, even supposing that the experimentalist critique fully succeeds, there remain plenty of aspects of philosophical method that will be essentially unaffected. Expertise in the construction of thought experiments is still an area where philosophers likely display genuine expertise. Even if procedures for gathering data from reactions to thought experiments need improvement, philosophers may well still display expertise in assessing, critiquing, and (when appropriate) rejecting or explaining away such data. Finally, much of philosophical practice consists in the construction and analysis of theories—teasing out their consequences, determining their compatibility with other positions, and so forth. Those practices are more or less unchallenged by experimentalist critiques. When viewed in the light of the analogy with bias reducing procedures in science, the experimentalist challenge is not an attack on the foundations of philosophical method, but merely a critique of too-ready acceptance of potentially problematic data. The proper reaction is not a rejection of thought-experiment judgments as an evidential source, any more than science ought to have rejected observation. The proper reaction is increased awareness of the epistemological shortcomings of the capacities underlying our reactions to thought experiments, and an attempt to correct for them and substitute alternate evidential sources where appropriate. Such efforts had a salutary effect on scientific method; one hopes they will do the same for philosophy.

Notes

- [1] The terminology is adapted from Weinberg (2009).
- [2] It's worth noting that these findings are subject to a fair amount of controversy. At least in some cases, variant prompts have led to failures to replicate the original results; it is thus at least possible that many of the variation findings are due to pragmatic factors, quirks of wording, or other issues arising from experimental design. See Adleberg, Thompson, and Nahmias (*forthcoming*); Cullen (2010); Lam (2010); Nagel (2012); and Nagel, San Juan, and Mar (2013) for findings that conflict with or fail to replicate the variation studies mentioned above. More generally, Woolfolk (2013) has argued that experimental work in philosophy fails to meet the methodological standards employed in the social sciences. As serious as this issue is, in my view it can be put aside for current purposes. Suppose that *none* of the studies that have been done to date survive scrutiny; even in such a scenario, there would nonetheless still be substantive questions to be asked regarding the existence and impact of philosophical expertise. It is, for instance, of epistemological interest to determine what impact biases among laypeople *would* have on philosophical method, were such biases to be reliably demonstrated in the future. In addition, the general status of experimental philosophy as a legitimate sub-discipline is arguably impacted by the expertise debate. Not all experimental philosophers concern themselves with demonstrations of epistemologically questionable variation; some believe that non-philosophers' intuitions provide positive evidence that bears on philosophical questions (see Nichols & Knobe, 2008 for an example of this approach). A proponent of the expertise defense, by contrast, would presumably want to claim that the intuitions of non-philosophers are generally irrelevant, and that survey methodology cannot replace armchair reasoning by trained philosophers.
- [3] Cullen (2010) does report experimental data in support of the claim that the survey responses of non-philosophers are influenced by pragmatic cues. However, this data does not directly demonstrate that philosophers are especially resistant to such pragmatic cues.
- [4] Weinberg, Gonnerman, Buckner, and Alexander (2010), notably, devote more attention to the possible forms expertise might take—however, they still seem to assume that the expertise must involve an improvement in intuition.
- [5] Thanks to an anonymous reviewer from this journal for pressing these points.
- [6] Again, it should be emphasized that Williamson is an exception—though he does seem to make the second assumption that philosophical expertise will result in reduced variation on the relevant experimental tasks.
- [7] Not all philosophers accept this characterization of philosophical methodology; Cappellen (2012), Deutch (2010), and Williamson (2007) all argue against the view that intuitions serve as evidence in philosophy. However, the version of the expertise defense currently under consideration aims to characterize philosophical expertise in terms of improved intuition—and a philosopher who does not view intuitions as evidence is not likely to embrace this version of the argument from analogy to begin with.
- [8] This is not of course a decisive refutation of intuition-centered versions of the analogical argument. However, I do hold that the onus here is on the defender of improved intuition to provide a more substantive account—indicating (1) which judgments in other fields count as the relevant “improved intuitions”; (2) how those judgments can be seen as genuine analogs to the sorts of judgments that defenders hold to be evidence in philosophy; and (3) how those judgments motivate the claim that the expected improved philosophical intuitions will be resistant to the relevant biases.
- [9] Again, granting the assumption that the findings will prove robust.
- [10] Except, of course, in the case of experimental philosophers, who do just that.
- [11] Williamson argues against viewing intuitions as evidence in philosophy, partly on the grounds that it illegitimately “psychologizes” the evidence. It might be objected, then, that characterizing thought-experiment judgments as providing “data” commits a similar

- “psychologization.” However, compare this with the role of observations in science. Characterizing observations as providing data does not conflict with the idea that scientific evidence consists not of psychological propositions like “I observed that p ,” but rather “ p .”
- [12] Further, if philosophical expertise consisted solely in the design of thought experiments, there would be no particular reason to administer the experiments to philosophers rather than the folk. Thus, experimentalists could still legitimately critique current philosophical method, by arguing that survey methodology provides a more appropriate method for data gathering than traditional armchair reflection.
- [13] A defender of expertise might object to the exclusive focus on comparison with science evident in this section—why science, rather than, say, history? I am of the opinion that the challenge presented by the experimentalist findings is most analogous to the challenge presented by observational biases in science; thus, a comparison with science is *prima facie* more relevant than a comparison with other fields. That said, there is surely much to be gained from comparisons between philosophical expertise and expertise in non-science fields. It is at least possible that such fields could provide the defenders of expertise with a model for expertise that would ultimately better suit their arguments. Exploration of this possibility is unfortunately beyond the scope of this paper.

References

- Adleberg, T., Thompson, M., & Nahmias, E. (forthcoming). Do men and women have different philosophical intuitions? Further data. *Philosophical Psychology*.
- Boring, E. G. (1953). A history of introspection. *Psychological Bulletin*, 50, 169–189.
- Buckwalter, W., & Stich, S. (2014). Gender and philosophical intuition. In J. Knobe & S. Nichols (Eds.), *Experimental philosophy* (Vol. 2, pp. 307–346). Oxford: Oxford University Press.
- Cappelen, H. (2012). *Philosophy without intuitions*. Oxford: Oxford University Press.
- Cullen, S. (2010). Survey-driven romanticism. *Review of Philosophy and Psychology*, 1, 275–296.
- Cummins, R. (1998). Reflection on reflective equilibrium. In M. DePaul & W. Ramsey (Eds.), *Rethinking intuition* (pp. 113–127). Lanham: Rowman & Littlefield.
- Deutsch, M. (2010). Intuitions, counterexamples, and experimental philosophy. *Review of Philosophy and Psychology*, 1, 447–460.
- Devitt, M. (2011). Experimental semantics. *Philosophy and Phenomenological Research*, 82, 418–435.
- Haidt, J., Koller, S., & Dias, M. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, 65, 613–628.
- Hales, S. (2006). *Relativism and the foundations of philosophy*. Cambridge, MA: MIT Press.
- Horvath, J. (2010). How (not) to react to experimental philosophy. *Philosophical Psychology*, 23, 447–480.
- Kauppinen, A. (2007). The rise and fall of experimental philosophy. *Philosophical Explorations*, 10, 95–118.
- Lam, B. (2010). Are Cantonese speakers really descriptivists? Revisiting cross-cultural semantics. *Cognition*, 115, 320–332.
- Ludwig, K. (2007). The epistemology of thought experiments: First person versus third person approaches. *Midwest Studies in Philosophy*, 31, 128–159.
- Machery, E., Mallon, R., Nichols, S., & Stich, S. (2004). Semantics, cross-cultural style. *Cognition*, 92, B1–B12.
- McCloskey, M. (1983). Intuitive physics. *Scientific American*, 248, 122–130.
- Nado, J. (2012). Why intuition? *Philosophy and Phenomenological Research*, 89(1), 15–41.
- Nagel, J. (2012). Intuitions and experiments: A defense of the case method in epistemology. *Philosophy and Phenomenological Research*, 85, 495–527.

- Nagel, J., San Juan, V., & Mar, R. (2013). Lay denial of knowledge for justified true beliefs. *Cognition*, 129, 652–661.
- Nichols, S., & Knobe, J. (2008). An experimental philosophy manifesto. In S. Nichols & J. Knobe (Eds.), *Experimental philosophy* (pp. 3–14). Oxford: Oxford University Press.
- Nichols, S., Stich, S., & Weinberg, J. (2003). Metaskepticism: Meditations in ethno-epistemology. In S. Luper (Ed.), *The skeptics* (pp. 227–247). Burlington, VT: Ashgate.
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as embodied moral judgment. *Personality and Social Psychology Bulletin*, 34, 1096–1109.
- Schulz, E., Cokely, E., & Feltz, A. (2011). Persistent bias in expert judgments about free will and moral responsibility: A test of the expertise defense. *Consciousness and Cognition*, 20, 1722–1731.
- Schwitzgebel, E. (2011). *Perplexities of consciousness*. Cambridge, MA: MIT Press.
- Schwitzgebel, E., & Cushman, F. (2012). Expertise in moral reasoning? Order effects on moral judgment in professional philosophers and non-philosophers. *Mind & Language*, 27, 135–153.
- Sosa, E. (2010). Experimental philosophy and philosophical intuition. *Philosophical Studies*, 132, 99–107.
- Swain, S., Alexander, J., & Weinberg, J. (2008). The instability of philosophical intuitions: running hot and cold on truetemp. *Philosophy and Phenomenological Research*, 76, 138–155.
- Titchener, E. B. (1901–1905). *Experimental psychology: A manual of laboratory practice* (Vols 1–4). London: MacMillan.
- Titchener, E. B. (1912). Prolegomena to a study of introspection. *American Journal of Psychology*, 23, 427–448.
- Tobia, K., Buckwalter, W., & Stich, S. (2013). Moral intuitions: Are philosophers experts? *Philosophical Psychology*, 26, 629–638.
- Vaesen, K., Peterson, M., & Van Bezooijen, B. (2013). The reliability of armchair intuitions. *Metaphilosophy*, 44, 559–578.
- Watson, J. (1913). Psychology as the behaviorist views it. *Psychological Review*, 20, 158–177.
- Weinberg, J. (2007). How to challenge intuitions empirically without risking skepticism. *Midwest Studies in Philosophy*, 31, 318–343.
- Weinberg, J. (2009). Review: On doing better, experimental-style. *Philosophical Studies*, 145, 455–464.
- Weinberg, J., Gonnerman, C., Buckner, C., & Alexander, J. (2010). Are philosophers expert intuiters? *Philosophical Psychology*, 23, 331–355.
- Weinberg, J., Nichols, S., & Stich, S. (2001). Normativity and epistemic intuitions. *Philosophical Topics*, 29, 429–460.
- Wheatley, T., & Haidt, J. (2005). Hypnotically induced disgust makes moral judgments more severe. *Psychological Science*, 16, 780–784.
- Williamson, T. (2004). Philosophical ‘intuitions’ and skepticism about judgment. *Dialectica*, 58, 109–153.
- Williamson, T. (2007). *The philosophy of philosophy*. Oxford: Blackwell.
- Williamson, T. (2009). Replies to Ichikawa, Martin and Weinberg. *Philosophical Studies*, 145, 465–476.
- Williamson, T. (2011). Philosophical expertise and the burden of proof. *Metaphilosophy*, 42, 215–229.
- Woolfolk, R. (2013). Experimental philosophy: A methodological critique. *Metaphilosophy*, 44, 79–87.