

# On the Role of Intuitions in Experimental Philosophy

Joachim Horvath

Ruhr University Bochum

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**Abstract:** This chapter proceeds from the standard picture of the relation between intuitions and experimental philosophy: the alleged evidential role of intuitions about hypothetical cases, and experimental philosophy's challenge to these judgments, based on their variation with philosophically irrelevant factors. I will survey some of the main defenses of this standard picture against the x-phi challenge, most of which fail. Concerning the most popular defense, the expertise defense, I will draw the bleak conclusion that intuitive expertise of the envisaged kind is largely a myth. Next, I will consider the mischaracterization objection, which has mainly been developed by Deutsch and Cappelen on the basis of textual evidence: that philosophers do not appeal to intuitions as evidence for their case judgments, but instead argue for them. This would render the x-phi challenge mostly irrelevant, due to its focus on intuitions about hypothetical cases. I will then consider a few instructive replies to the mischaracterization objection, which are all unconvincing on further inspection. Finally, I will discuss some potential normative consequences of the mischaracterization objection, and I will argue that it recommends a shift away from the excessive focus on intuitions about cases in metaphilosophy and experimental philosophy, towards more work on the role of argumentation in the method of cases. More speculatively, I claim that philosophers should always argue for their case judgments, even if they have strong intuitions about them, because an argument-based methodology would be more transparent and philosophically fruitful than one that mainly relies on intuition.

**Keywords:** intuitions; method of cases; thought experiments; experimental philosophy; metaphilosophy; expertise defense; intuitive expertise; mischaracterization objection; argumentation

## 1. Introduction

The standard picture of how philosophical intuitions and experimental philosophy are related looks as follows. In one of philosophy's key methods, the *method of cases*, philosophers routinely appeal to *intuitive judgments* about hypothetical thought experiment cases, which are then used to support or refute philosophical theories that make a

prediction about how these judgments should turn out. A classic example would be Gettier's (1963) refutation of an account of knowledge in terms of justified true belief (JTB) by his case judgments that the protagonist of his two hypothetical cases lacks knowledge, despite having a belief that is both justified and true. Hence, the story goes, Gettier has provided two *intuitive counterexamples* to the traditional JTB-account of knowledge, which is typically considered as one of the greatest successes of the method of cases – illustrated by the thousands of citations of Gettier's two-and-a-half-page paper and the hundreds of papers and books that try to resolve the ensuing "Gettier problem".<sup>1</sup> But then, in the early 2000s, *experimental philosophy* (or *x-phi*, for short) enters the scene with various experiments on people's intuitive judgments about well-known philosophical thought experiment cases, such as (a version of) Gettier's cases (in Weinberg, Nichols, and Stich 2001). The surprising finding is, again and again, that these intuitive judgments vary with factors that are arguably irrelevant to their truth. Well-known examples are the variation of judgments about Gettier cases with people's *cultural background* (Weinberg et al. 2001), or the variation of Trolley and Trolley cases with *order of presentation* (Swain, Alexander, and Weinberg 2008; Wiegmann, Okan, and Nagel 2012). This challenges the epistemic trustworthiness or reliability of people's judgments about philosophical cases, and might thus require a serious restriction on the use of the method of cases in philosophy – or even its abandonment (Alexander and Weinberg 2007; Machery 2017). In any case, that's how the standard picture about intuitions and experimental philosophy is frequently painted.

One way in which this standard picture is clearly too narrow by now is in its neglect of *other methods* and *other targets* of experimental philosophy. For example, apart from using *case-based questionnaires* to elicit people's intuitive judgments about hypothetical cases, experimental philosophers also collect *behavioral evidence* (e.g. Schwitzgebel 2009; Schwitzgebel et al. 2012) or use *corpus studies* (e.g., Hansen, Porter, and Francis 2021; Sytsma and Reuter 2017) and the *tools of psycholinguistics* (e.g., Fischer et al. 2021; Fischer, Engelhardt, and Herbelot 2022) – to offer just a few well-known examples. Moreover, and relatedly, today's experimental philosophers do not only target *intuitive judgments* about cases, but also, for example, the *ethical behavior* of ethicists and other people (e.g., Schwitzgebel et al. 2012; Schwitzgebel, Cokolet, and Singer 2020), the *cognitive mechanisms* that underlie people's case judgments (e.g., Nichols and Knobe 2007), or the *effectiveness of arguments* for case judgments (e.g., Horvath and Wiegmann ms; Wysocki 2017).

While it is important to acknowledge this increasing diversity of both research methods and topics in current experimental philosophy (see also Fischer and Curtis 2019; Machery and O'Neill 2014), the issue of intuitive case judgments and the x-phi challenge to the method of cases still take center stage in the metaphilosophical debate about x-phi. Moreover, a lot of unfinished philosophical business remains even in this relatively narrow area of metaphilosophical concern. For example, it is still an open question how serious the experimental challenge to the method of cases really is, and whether or how the method of cases can be defended against it (for an overview, see, e.g., Horvath and Koch 2021; Machery 2017; Nado 2016a). For these reasons, the current chapter will mostly be concerned with the predominant issue of intuitions about hypothetical cases and the x-phi challenge.

With respect to this challenge, one can distinguish two main camps on the side of champions of the method of cases. One camp basically accepts the standard picture but tries

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<sup>1</sup> The precise numbers are hard to assess, though, given that many authors do not (fully) cite Gettier's original paper from 1963. In any case, a *Google Scholar* search of "Gettier justified true belief knowledge" generates about 13,600 results, and a search of "Gettier problem" even about 15,000 results (on June 8, 2022).

to defend the method of cases against the x-phi challenge nevertheless – let us call it the camp of *intuition apologists*. This defense can take many forms – from objecting that experimental philosophers have studied the *wrong subjects*, e.g., laypeople instead of philosophical experts (e.g., Hales 2006; Horvath 2010; Ludwig 2007; Williamson 2011), to complaining that they have investigated the *wrong cognitive states*, e.g., spontaneous judgments instead of genuine intuitions or reflective judgments (e.g., Bengson 2013; Kauppinen 2007), to arguing that the experimental results are in fact *compatible with the method of cases*, e.g., because they only indicate a merely verbal or conceptual difference (e.g., Sosa 2009, 2010).

The second camp tackles the more fundamental assumption that the standard picture of the method of cases and the presumed role of intuitive case judgments in this method is basically correct – let us call this the camp of *intuition detractors*. There are more moderate forms of intuition detraction, e.g., as a mere denial that case judgments are *intuitive* judgments, yet without questioning their standardly assumed methodological role (e.g., Ichikawa 2014; Machery 2017; Williamson 2004), or more radical forms, e.g., as rejecting the standard picture as a severe *mischaracterization* of the actual practice of the method of cases in philosophy (e.g., Cappelen 2012; Deutsch 2015).

One might even distinguish a third camp here, whose members attack the robustness of the empirical findings of experimental philosophy, e.g., by challenging the experimental design or replicability of particular studies (e.g., Cullen 2010; Nagel 2012; Seyedsayamdost 2015; Ziólkowski 2019). Important as this third camp and its contributions may be, I will nevertheless put it aside here, for it has become clear by now that this approach does not allow for a principled answer to the experimental philosophy challenge – simply because most x-phi studies replicate fairly well and do not suffer from any serious methodological flaws (see, e.g., Cova et al. 2018; Machery 2017; Sytsma and Livengood 2016).

In the following, I will first consider various well-known replies to the experimental philosophy challenge by *intuition apologists*, and briefly explain why they are largely unconvincing. My main focus will be on the most popular reply, the *expertise defense*. According to this defense, the susceptibility of laypeople's intuitive case judgments to philosophically irrelevant factors is irrelevant to the practice of *philosophical experts*, who can be expected to be resistant to the influence of such factors. However, I will argue that, by now, the available evidence suggests that this kind of intuitive expertise is largely a myth. To this end, I will distinguish between the *master model* and the *immunity model* of intuitive expertise, and then explain why neither of them delivers what proponents of the expertise defense would need in order to successfully rebut the x-phi challenge.

So, if there is any hope for practitioners of the method of cases to simply shrug off the experimental philosophy challenge, then it would have to come from the second camp of *intuition detractors*. Indeed, the *mischaracterization objection*, mainly developed by Max Deutsch (e.g., 2015) and Herman Cappelen (e.g., 2012), promises no less than to expose the irrelevance of the x-phi challenge to the method of cases. How so? By arguing, on the basis of detailed textual analyses, that philosophers do not appeal to intuitions about hypothetical cases, but instead *argue* for their case judgments. If this *argument view* were correct, then it would indeed follow that experimental findings about intuitive case judgments have little relevance to philosophers' actual practice of the method of cases. I will therefore briefly analyze the mischaracterization objection and defend it against a few instructive objections. Lastly, I will consider what follows for the *methodological role* of intuitions in philosophy if the mischaracterization objection is indeed correct, and I will consider some interesting

consequences, both descriptive and normative, for the future practice of the method of cases and related work in experimental philosophy.

## 2. A brief survey of intuition apologetics

The main aim of *intuition apologists* is to defend the standard intuition-based picture of the method of cases against the challenge from experimental philosophy. That is, intuition apologists argue, in one way or another, that the surprising variation of intuitive case judgments with philosophically irrelevant factors is no obstacle to practicing the method of cases in more or less the same way – captured by the standard picture – as before the advent of experimental philosophy. However, it has proven difficult to achieve this goal, which I will illustrate with a brief survey of the main defensive moves of intuition apologists.

To begin with, some philosophers have complained that the x-phi studies merely track “answers” to questionnaires, but *not* “genuine” philosophical intuitions, which may differ crucially in epistemic value (see, e.g., Bengson 2013; Ludwig 2007). For example, maybe only those judgments are based on genuine intuitions that “express solely the subject’s competence in the deployment of the concepts involved” (Ludwig 2007:144), or that solely reflect one’s rational intuitions or intellectual seemings (cf. Bengson 2013). The main problem for this response is that the alleged difference between genuine intuitions and mere questionnaire-answers is rarely transparent to the thought experimenting subject, which threatens to make the defense methodologically idle. For, it would then be equally unclear whether philosophers themselves rely on genuine intuitions in their thought experiments, and so the response would fail as a defense of actual philosophical practice (cf. Horvath 2010:2; Weinberg, Crowley, et al. 2012; Weinberg and Alexander 2014).

Other philosophers have objected that people’s responses to questionnaires are primarily spontaneous and unreflective judgments, while the verdicts that really matter for philosophical theorizing are of a more *reflective* kind (see, e.g., Kauppinen 2007). One might put this objection in terms of the psychological distinction between System 1 and System 2 cognition (see, e.g., Evans 2003): questionnaires typically elicit fast, automatic, and unconscious System 1 responses, but philosophy requires slow, deliberate, and conscious System 2 responses. However, System 2 cognition is subject to its own biases and limitations, and so its superiority to System 1 cognition cannot simply be taken for granted (see, e.g., Kahneman 2011). Moreover, experimental philosophers have already gathered evidence that the influence of irrelevant factors on intuitive case judgments is not mitigated in more reflective subjects (cf. Kneer et al. 2021; Weinberg, Alexander, et al. 2012).

According to the *different-concepts objection*, the findings of x-phi merely suggest that the tested subjects have different concepts of, e.g., knowledge or free will, and not that their intuitive judgments are influenced by philosophically irrelevant factors (see, e.g., Sosa 2009, 2010). But first, it seems questionable to ascribe different concepts to people who only disagree about a few hypothetical cases. More plausibly, some of these people are simply mistaken in their application of a widely shared concept. Second, this objection is at best applicable to *some* of the tested factors, such as cultural background, yet it seems implausible as a response to, for example, order effects or the influence of affective content (see, e.g., Alexander and Weinberg 2007; Horvath 2010:3.4; Nichols, Stich, and Weinberg 2003).

A more promising response raises *skeptical worries* about the epistemic implications of the x-phi challenge. For example, the claim that intuitive judgments about cases are

unreliable or untrustworthy threatens to challenge ordinary, everyday judgments about cases as well, and might thus lead to a debilitating form of “judgment skepticism” (see, e.g., Williamson 2007, ch. 7). Relatedly, the challenge might even be *self-defeating*, because it relies on epistemic principles that themselves seem to be justified on the basis of intuitive case judgments (see, e.g. Horvath 2010:4.1). In response, experimental philosophers have limited the scope of their challenge to, for example, intuitive judgments about “esoteric, unusual, far-fetched, or generally outlandish” cases (Weinberg 2007:321; see also Machery 2017). If successful, this strategy might avoid the skeptical “spill-over” to judgments about ordinary cases. The main problem is to distinguish verdicts about ordinary and “esoteric” cases in a non-arbitrary way (cf. Horvath 2010:4.1). It is not clear, however, why experimental philosophers could not simply pick out the problematic case judgments via their methodological role in philosophy. For example, philosophers typically use judgments about hypothetical cases to establish a modal conclusion of some sort (see, e.g., Horvath forthcoming), and this kind of usage seems far removed from everyday judgments about ordinary cases. So, maybe experimental philosophers can simply dodge skeptical worries about their challenge by focusing on case judgments *as they are typically used in philosophical contexts*. In any case, the debate about skeptical worries concerning the x-phi challenge has not been very active in recent years, but it seems that the available options have not been exhausted yet. The current status of this attempted defense is thus inconclusive.

So far, I have not mentioned the most popular strategy of intuition apologists, the *expertise defense*. The intensity of the metaphilosophical debate about this defense and the richness of the available empirical evidence merit a more in-depth analysis, which I will turn to in the following section.

### 3. The myth of intuitive expertise

The core idea of the expertise defense against the x-phi challenge is that only the intuitive judgments of the relevant *philosophical experts* matter – as in other academic disciplines too (e.g., Devitt 2011; Hales 2006; Horvath 2010; Ludwig 2007; Williamson 2011). Accordingly, lay intuitions about philosophical thought experiment cases would be largely irrelevant to the practice of professional philosophy, just as lay intuitions about physical matters are largely irrelevant to professional physicists. Now, at the time when the expertise defense became popular (around the year 2010), almost all of the available x-phi studies had been conducted with philosophical laypeople (in fact, mostly with US undergraduate students). So, from the perspective of the expertise defense, these studies have almost no bearing on the philosophical method of cases. It is easy to see the metaphilosophical attraction of this defense, which would allow for an uncompromising defense of the standard picture of the method of cases in professional philosophy – in addition to the “self-congratulatory” appeal of seeing ourselves as “expert intuiters” who can safely ignore the intuitions of the *hoi polloi*.

There are several ways of motivating the expertise defense. I have already mentioned the *argument from analogy* with professional practitioners of other academic disciplines, such as math, physics, or law (e.g., Hales 2006; Ludwig 2007; Williamson 2011). One can also appeal to a *general presumption of expertise* for the professional practitioners of any respectable discipline (in a broad sense), even in non-academic fields like chess or cooking (e.g., Horvath 2010; Williamson 2011). Finally, one can also appeal to *specific cognitive skills* that professional philosophers are more likely to have than laypeople, such as

their higher sensitivity to conceptual distinctions and a better understanding of the point and purpose of doing thought experiments (e.g., Horvath 2010; Ludwig 2007).

None of these motivations for the expertise defense are uncontroversial even among its proponents, however, and all of them are subject to various concerns or problems (see, e.g., Horvath 2010; Nado 2015; Weinberg et al. 2010). For example, how analogous is philosophy really to other academic disciplines, given the amount of disagreement that is so characteristic of philosophy since its very beginning (see, e.g., Chalmers 2015)? One key point about the expertise defense should nevertheless be acknowledged by proponents and opponents alike: that it is not enough to establish that professional philosophers are *experts in one way or another* – which they surely are, if only by knowing a lot more about philosophy than laypeople. Rather, what is needed for the specific purpose of countering the x-phi challenge to the method of cases is the assumption that professional philosophers have *intuitive expertise* in judging hypothetical cases in their respective field (cf. Weinberg et al. 2010). This highly specific intuitive expertise does not automatically follow from the general philosophical expertise that professional philosophers undeniably have. To claim such intuitive expertise for professional philosophers is, on the one hand, more difficult to motivate than some general assumption of philosophers' expertise, and, on the other hand, it is also a straightforwardly testable empirical claim. But before I start to evaluate this claim, let me propose some clarifications and helpful distinctions regarding the key notion of *intuitive expertise*.

How should we understand both the *intuitive* and the *expertise* in intuitive expertise? With respect to the *intuitive* judgments that would result from an exercise of intuitive expertise, it is, unfortunately, not easy to say something reasonably uncontroversial about them – given the welter of views about the nature of intuitions in philosophy (see, e.g., Pust 2017). So, the best we can do for present purposes is to roughly demarcate intuitions and intuitive judgments from other mental states and judgments – yet without aiming for anything like a strict definition in terms of necessary and sufficient conditions (for simplicity, I will focus on intuitive judgments in the following). One key feature of intuitive judgments is that their psychological origin is not (fully) transparent from an introspective or reflective perspective. Typically, all we can say when we make an intuitive judgment is that it is not (wholly) based on conscious inference, reasoning, perception, memory, or other consciously accessible sources. This leads to the characteristic impression that intuitive judgments are, in some sense, automatic or spontaneous, and not subject to conscious control or influence (psychologically, this is often cashed out in terms of System 1 and 2 cognition; see above). In any case, one important upshot for the following discussion is that judgments that are (wholly) based on some conscious argument, inference, or reasoning process would clearly *not* be intuitive judgments – or else the distinction between reflective judgments and intuitive judgments would simply collapse.

With an eye on the expertise defense, what should we say about the *expertise* in intuitive expertise? Mainly what I have already highlighted above, namely, that it should be understood as the very *specific expertise* for judging hypothetical cases about the philosophical topic in question. Given the well-established *domain-specificity* of expertise in general (see, e.g., Ericsson and Lehmann 1996), we should think of the intuitive expertise in question as at least relative to established philosophical subfields, such as epistemology, ethics, or metaphysics. Thus, we should not simply assume that professional philosophers are equally competent in judging thought experiment cases from all areas of philosophy. But *if* there is such a thing as intuitive expertise in philosophy, we should at least find it in those

professional philosophers who have the relevant subfield as one of their areas of specialization or competence.

Finally, let me introduce a distinction between two very different models of how one can conceive of expertise in general and intuitive expertise in particular, which will be helpful for organizing the following discussion. These two models are the *master model* and the *immunity model* of intuitive expertise (see also Machery 2017; Sytsma and Livengood 2016). According to the *master model*, the intuitive judgments of experts would be highly superior to laypeople across the board in their respective domain of expertise. In contrast, the *immunity model* only claims that experts are less sensitive to biases and other distorting influences on their domain-related intuitive judgments. I will further elaborate on these two models below, but I want to emphasize right away that this is a primarily analytic and thus somewhat idealized distinction. In practice, there will be all kinds of hybrid combinations between these analytically distinguishable models of expertise. However, if neither expertise in the master sense nor expertise in the immunity sense can be plausibly ascribed to professional philosophers, then the expertise defense is definitely bound to fail.

### 3.1 The myth of intuitive mastery

A good way to illustrate the *master model* is with an example from one of the “model domains” of mastery that features in a lot of empirical research on expertise as well (see, e.g., Gobet and Simon 1996): the game of *chess*. Here, the differences in both playing ability and the quality of (intuitive) judgments about chess positions are simply astounding. The relative strength of chess players is measured by the *Elo rating system* (named after its developer, the Hungarian-American physicist Arpad Elo), which is also the basis for the chess world rankings by the world chess federation FIDE.<sup>2</sup> For example, the probability that a chess player at the level of an average international master with an Elo rating of 2400 loses against an average club-player with an Elo rating of 1800 is a strikingly low 0.57 % (so, it basically never happens in practice; see *Table 1*).<sup>3</sup> This is to bear in mind that the gulf between a chess master and a chess amateur is even more pronounced if we consider a player at the grandmaster (about Elo 2500) or even super-grandmaster level (above Elo 2700) – with the latter reducing the amateur’s chances of winning to a staggering 0.013 % or less.<sup>4</sup> Therefore, chess mastery is an excellent paradigm for what *genuine mastery* in some field or discipline would have to look like when it comes to expert-lay comparisons (other professional sports or the mastery of musical instruments would be instructive here as well).

| <b>Result</b>            | <b>Probability</b> |
|--------------------------|--------------------|
| Player 1 (Elo 2400) wins | 0.969960018        |
| Player 2 (Elo 1800) wins | 0.005688859        |
| Draw                     | 0.024351123        |

*Table 1:* Probability of the outcome of a game of

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<sup>2</sup> For details, see, e.g.: [https://en.wikipedia.org/wiki/Elo\\_rating\\_system](https://en.wikipedia.org/wiki/Elo_rating_system)

<sup>3</sup> One big advantage of the ELO rating system over many other rating systems in sports is that it allows for a relatively accurate and ecologically valid estimate of the probability of a given result between two Elo-rated players. This makes chess an especially apt and fruitful field for the empirical study of expertise.

<sup>4</sup> Source for all Elo calculations: <https://wismuth.com/elo/calculator.html>

chess between a master-level player (Elo 2400)  
and an average club-player (Elo 1800).

Now, if professional philosophers were indeed *master intuiters* with respect to thought experiments in their areas of specialization, then the variation with irrelevant factors observed in x-phi studies would not matter very much for whether we can trust philosophers' intuitive judgments a lot more than those of laypeople. Even chess masters are influenced by certain *order effects* (Bilalić, McLeod, and Gobet 2008), for example. But all that follows is that even masters are not infallible in their intuitive judgments (we already knew that!) – but not that the judgments of masters do not count for a lot more than laypeople's judgments on practically all occasions. In other words, if philosophers were indeed master intuiters, then the challenge from experimental philosophy would at best be a minor issue that hardly recommends any significant change to philosophical practice.

Thus, let us turn to the crucial question: is there any reason to think that professional philosophers have intuitive expertise in the master sense? To structure the discussion, I will first consider *direct experimental evidence* that bears on this issue, and then move on to more *indirect evidence*, such as observations about our actual philosophical practice and results from the science of expertise. In comparison to chess, however, where we have the Elo rating system and powerful computer software in order to double-check even the judgments of world-class players, the situation for studying intuitive expertise in philosophy is less straightforward. For example, given that even world-class philosophical experts disagree on many issues in their domains of expertise, and that we lack independent procedures for checking the quality of philosophers' judgments, we can only work with a *minimal condition* on intuitive mastery in philosophy.<sup>5</sup> My proposal for this minimal condition is that there must be at least a *very large difference* between the intuitive judgments of master intuiters and laypeople. So, we can now ask the more focused question: is there a very large difference between the intuitive case judgments of philosophical experts and laypeople?

Let us first consider the extant *experimental evidence*. Unfortunately, there are only a few studies that bear on intuitive philosophical expertise in the master sense (the situation is a bit better in case of intuitive expertise in the immunity sense, as we will see below). Still, the available evidence points to a relatively clear conclusion about intuitive mastery in philosophy, as I will argue in the following.

First, there is a study by **Machery (2012)** in which he compared intuitions about *reference* in laypeople and various groups of language experts from philosophy and linguistics. More specifically, he investigated a version of Kripke's (1980) famous Gödel-Schmidt case (taken from Machery et al. 2004) in order to test whether participants' intuitions about the reference of proper names are influenced by descriptions associated with the name. In Kripke's hypothetical Gödel-Schmidt case, the description that most people associate with the mathematician Kurt Gödel – being the man who discovered the incompleteness of arithmetic – is actually true of an unknown mathematician called 'Schmidt', from whom Gödel stole the incompleteness theorem. So, this case poses the

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<sup>5</sup> One could also supplement the minimal condition with a selection of thought experiment cases on which expert philosophers largely agree, and use these as a further "benchmark" for assessing the differences between philosophical experts and laypeople (see, e.g., Horvath and Wiegmann 2016; Schindler and Saint-Germier 2022). While this procedure would complicate things a bit, it would not change all that much in the general picture that emerges from the discussion. For example, there is a high level of philosophical agreement on Gettier's cases (1963), but cases of this kind are also judged in the philosophers' way by a clear majority of lay subjects – even across cultures and languages (Machery et al. 2017).



question whether the name ‘Gödel’ in fact refers to Schmidt, who actually discovered the incompleteness of arithmetic (Kripke 1980:83–92). To the extent that people are not influenced by associated descriptions, and thus respond that the name ‘Gödel’ does not refer to Schmidt, their intuitions would be more in line with Kripke’s semantic externalism about proper names, which holds that reference is not determined by associated descriptions, but rather by certain causal-historical relations between a name and its referent. What Machery (2012:47–48) found is that the proportion of Kripkean intuitions about the tested case was roughly at the same level for philosophers of language (83.9 %) and laypeople (76.9 %), with no significant difference between these two groups. An interesting additional finding was that the various groups of language experts also disagreed significantly among each other.

Second, **Horvath and Wiegmann (2016)** report two experiments in which they compared the knowledge-intuitions of laypeople and expert epistemologists about three thought experiment cases, inspired by the epistemological literature, and a clear case of knowledge and non-knowledge, respectively. Overall, they found no dramatic differences between experts and laypeople, although expert and lay verdicts differed significantly in some cases. But even here, the mean expert and lay ratings were still on the same side of the employed Likert scale (i.e., above or below the midpoint), ranging from 1 (‘strongly disagree’) to 6 (‘strongly agree’), and so there was no “hard” disagreement about whether the cases should more be seen as cases of knowledge or non-knowledge. Moreover, Horvath and Wiegmann found that expert intuitions about cases of the fake-barn-type (cf. Goldman 1976) were on average judged as cases of knowledge by both laypeople and experts – contrary to the relevant “textbook consensus” (see, e.g., Shope 2004; Steup 2014). In cases of this kind, the subject correctly perceives an object, such as a barn or a painting, which is, however, surrounded by fake objects of the same kind, i.e., by fake barns or fake paintings. Expert judgments about these cases were also fairly polarized (see Horvath and Wiegmann 2016:2).

Third, in a more recent study, **Horvath and Wiegmann (2022)** compared the intuitive case judgments of expert ethicists and laypeople in five moral cases. The main purpose of the study was to test expert-lay differences with respect to five well-known framing effects. The results are thus primarily relevant to the immunity model of intuitive expertise (see below), but they also bear on our present discussion of the master model. For, Horvath and Wiegmann found significant expert-lay differences in only two of the five tested cases, and a few of their expert-lay comparisons even were – descriptively speaking – strikingly similar (Horvath and Wiegmann 2022:1). So, once again, the overall pattern of expert-lay differences runs counter to what the master model of intuitive expertise would predict.

Fourth, **Schindler and Germier (2022)** compared the intuitive judgments of professional philosophers and laypeople for six thought experiments from theoretical philosophy. They found a significant difference between laypeople’s and philosophers’ case verdicts in only three of the six tested cases, and the overall difference between philosophers’ and laypeople’s case judgments did not amount to any “hard” disagreement either (in the sense explained above).<sup>6</sup> In addition, Schindler and Germier (2022) compared philosophers and laypeople in terms of three interpretative skills that are closely related to

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<sup>6</sup> The same is true of philosopher-lay differences in five of the six tested cases individually. The only outlier is Schindler and Germier’s fake-barn-type case (see <https://osf.io/mhs9t>), which is inspired by Horvath and Wiegmann’s (2016) Sculpture case. Here, the mean ratings of laypeople’s and philosophers’ case verdicts fall on different sides of the midpoint of Schindler and Germier’s 5-point Likert scale, which is a finding that does not fit into the general pattern of experimental results concerning fake-barn-type cases (see, e.g., Turri 2017).

thought experiment judgments, such as evaluating the possibility of the cases or the relevance of particular case features. While there was a significant philosopher-lay difference concerning these interpretative skills, the overall pattern of responses was still fairly similar, and thus not indicative of any pronounced expert-lay differences.

The available empirical evidence therefore does not support an understanding of intuitive expertise in philosophy along the lines of the master model, because it disconfirms a key prediction of the master model: that we should find pronounced expert-lay differences in intuitive judgments about philosophical cases. This stands in striking contrast to areas of proven master expertise, such as chess, where we find very large differences in (intuitive) judgments between masters and laypeople.

There are also *indirect considerations* based on observations about our actual philosophical practice and findings from the science of expertise that militate against the master model in philosophy. For example, even world-leading philosophical experts are not treated as master intuiters in philosophical practice. Think about high-level expert epistemologists, such as Alvin Goldman or Ernest Sosa: neither students of philosophy nor “second-rate” epistemologists treat their judgments about, e.g., fake-barn cases as the pronouncements of a superior epistemic authority to whom they would defer in cases of disagreement. Rather, the intuitive case judgments of all reasonable interlocutors, that is, people who exhibit a basic understanding of the relevant thought experiment and its purpose, are roughly treated alike, i.e., as having roughly the same epistemic status. So, for example, even a philosopher like Ernest Sosa, with decades of experience as a professional epistemologist, would treat it as *prima facie* problematic if his students did not share his verdict about a particular hypothetical case. This, again, stands in clear contrast to the pronouncements of a world-leading chess grandmaster *vis-à-vis* the intuitive judgments of a chess amateur, for the latter will typically defer to the grandmaster in cases of disagreement. If a high-level grandmaster like Judit Polgár, for example, says that a certain move feels or seems wrong to her, then amateur players will typically take her judgment very seriously, and revise their own judgments about the position accordingly.

Moreover, one key result that has emerged from the *science of expertise* is that the development of genuine expertise typically requires a training regimen called *deliberative practice* (see, e.g., Ericsson et al. 2006). The specific features of deliberative practice have been studied in many undeniable areas of genuine expertise, such as chess, math, or musical virtuosity. What it requires, among other things, is *timely, clear, and reliable feedback in a large number of cases* and *clear guiding standards of excellence*. In the domain of chess, for example, this amounts to being exposed to thousands of chess positions over a training period of up to several decades, followed by timely, clear, and reliable feedback on how to best judge and play the relevant positions from chess masters or computer engines that vastly outperform even the best human players. Whatever exactly the typical training in philosophy may look like, we can say without exaggeration that it is miles away from the intensity, level of precision, and systematicity that we find in the education of budding chess masters (cf. Clarke 2013; Weinberg et al. 2010). So, even if we do find *some* of the elements of deliberate practice in the way we train philosophical novices in their judgments about thought experiments (as, e.g., Williamson 2011, argues), it still does not even come close to what the inculcation of genuine expertise in the master sense would require.

Therefore, I conclude that both the available experimental evidence and the more indirect evidence from philosophical practice and the science of expertise clearly suggest that the master model is not a plausible model of intuitive expertise in philosophy.

### 3.2 The myth of intuitive immunity

Now, you might object that the master model was never a plausible candidate for intuitive philosophical expertise in the first place, because many key philosophical concepts, such as KNOWLEDGE or TRUTH, are actually shared by philosophers and laypeople, and the excessively high standard of mastery is thus not really needed to support the expertise defense. Rather, it suffices if philosophical experts are simply less influenced by philosophically irrelevant factors, such as order of presentation or framing effects, regardless of whether their intuitive judgments are overall much better than those of laypeople. In other words, an assumption of intuitive expertise in the *immunity sense* is more than enough to defend the intuitive judgments of philosophical experts from the x-phi challenge. One key idea here is that philosophical experts draw on roughly the same cognitive resources as laypeople, for example, their competence with the relevant concepts, but that they are also much better at “screening off” the influence of irrelevant and distorting psychological factors on their intuitive judgments about hypothetical cases.

Prima facie, this seems plausible enough to get the expertise defense going. However, even the more modest claim that philosophical experts enjoy this kind of intuitive immunity in their areas of expertise involves two crucial empirical assumptions that will turn out to be problematic on closer inspection. The *first empirical assumption* is that immunity expertise is psychologically separable from master expertise. For, tellingly, there do not seem to be any clear paradigm cases of “free-standing” immunity expertise. The *second empirical assumption* is, once again, that philosophical experts really have the immunity expertise in question. I will now first revisit the available *experimental evidence* that bears directly on this second assumption, and then consider some more *indirect evidence* from philosophical practice, psychology, and the science of expertise. In this connection, I will also return to the first empirical assumption and offer some evidence of its questionability.

Let us begin by considering the available *experimental evidence* that bears on intuitive expertise in the immunity sense. Even though the number of relevant studies is still not exactly large here, the situation is nevertheless better than in the case of intuitive mastery, because the last decade has seen a series of experimental work on intuitive immunity in philosophical experts. Before we turn to these studies, however, we should first consider what they would have to show in order to substantiate the expertise defense. Fortunately, the crucial issue itself – whether experts are less susceptible to philosophically irrelevant factors than laypeople – is directly empirically testable by comparing relevant groups of philosophical experts with laypeople. As a minimal requirement on intuitive immunity – and thus for a successful rebuttal of the x-phi challenge – I would propose that philosophical experts must be substantially more resistant to the influence of philosophically irrelevant factors than laypeople in a wide range of cases in their respective areas of expertise (such as ethics, epistemology, metaphysics, or philosophy of language). The assumption that the factors in question are indeed philosophically irrelevant is, of course, crucial for this kind of research, but it is also fairly uncontroversial in many cases, such as the influence of order of presentation (for discussion, see, e.g., Wiegmann, Horvath, and Meyer 2020).

Let us begin with an early study by **Hitchcock and Knobe (2009)**, which compares intuitions about actual causation (or “token” causation) in professional philosophers and laypeople. Judgments about actual causation are not judgments about the overall causal structure that is operative in a certain situation, but rather judgments that a particular event

A caused another event B, such as the impact of the ball causing the breaking of the window. What they found is that the relevant causal intuitions of professional philosophers (inclusion criteria: professor of philosophy or PhD in philosophy) are equally affected by *norm violations* as those of lay people (even in cases where questions of blame and responsibility were not an issue). However, it is somewhat controversial whether norm violations are in fact irrelevant to judgments about actual causation, with Hitchcock and Knobe arguing, for example, that sensitivity to norm violations is a constitutive feature of our pretheoretical concept of causation.

Another early study by **Schulz, Cokely, and Feltz (2011)** reports that expert judgments on free will and moral responsibility were not immune to the influence of the heritable personality trait *extraversion* (more specifically, a sub-trait of extraversion called '*warmth*'), which predicts compatibilist intuitions in both experts and laypeople (as determined by the 'Free Will Skill Test' developed by the authors). Roughly speaking, compatibilism allows for actions out of free will and genuine moral responsibility even in a universe where every action is completely causally determined by previous conditions. At least for laypeople, the influence of extraversion on compatibilist intuitions was also shown to be robust in a recent meta-study (Feltz and Cokely 2019).

In **Schwitzgebel and Cushman's (2012)** seminal study on the expertise defense, they report that *order effects* about a number of ethical cases, including classic trolley cases, were equally large in expert ethicists (inclusion criteria: area of specialization or competence in ethics and/or PhD in philosophy) and laypeople. Order effects are influences on cognition that merely depend on the order in which certain items, such as various hypothetical cases, are presented to the subject in question, which is almost always an irrelevant or distorting factor – both in- and outside of philosophy (for discussion, see Wiegmann et al. 2020). In a follow-up study, **Schwitzgebel and Cushman (2015)** successfully replicated their earlier finding about *order effects* in expert ethicists, and they also found that the influence of order of presentation is not mitigated by forced reflection, self-reported familiarity with the tested cases, self-reported stability of previous opinion on the tested cases, and self-reported expertise.

Another study by **Tobia, Buckwalter, and Stich (2013)** reports that professional philosophers exhibit an equally large *actor-observer bias* as laypeople concerning various ethical cases. One speaks of an actor-observer bias if certain judgments or intuitions are influenced merely by whether otherwise identical situations are described from a third-person or first-person point of view. **Tobia, Chapman, and Stich (2013)** confirmed this earlier finding. In addition, they also reported that professional philosophers' moral judgments are equally influenced by *priming* with the smell of the disinfectant Lysol (i.e., exposure to this smell before the actual experimental task), which is psychologically strongly associated with cleanliness. However, both of these findings seem highly questionable in light of the recent replication crisis in psychology and other experimental disciplines (see, e.g., Open Science Collaboration 2015): the initial finding about actor-observer bias has been disconfirmed by a high-powered experiment of **Horvath and Wiegmann (2022)**, and priming studies of the Lysol-kind have generally been shown to lack empirical robustness (see, e.g., Johnson, Cheung, and Donnellan 2014).

In a more recent study, **Löhr (2019)** tests various hypotheses about Nozick's (1974) experience-machine thought experiment with laypeople and professional philosophers. In this thought experiment, Nozick wants us to imagine a machine that artificially induces a stream of experience or consciousness in us that is qualitatively indistinguishable from our actual experience. This raises the question whether we would prefer to enter this machine

for the rest of our lives if our conscious experience were as happy and pleasurable as we can possibly imagine it – or whether we would rather prefer to live in “the real world” with all its hardships and frustrations. While philosophers were somewhat more consistent in their answers to different versions of the experience-machine scenario than laypeople, a remarkable 29% of them still gave inconsistent answers (in a within-subject design).

Even more recently, **Wiegmann, Horvath, and Meyer (2020)** presented evidence that expert ethicists (inclusion criteria: PhD or MA in philosophy *and* moral philosophy as area of specialization or competence) are no less susceptible to *order effects* and the influence of *irrelevant options* on their moral judgments about trolley scenarios of the push-type (i.e., cases with the option of *pushing* a person on the track to stop a train from killing several people vs. the option of *doing nothing*, and a six-option version of the case with four additional intermediate options). Most strikingly, the difference between first seeing the original dilemma version of the push-type trolley case versus first seeing the six-option version was highly significant in expert ethicists, but non-significant in laypeople. Since the two basic options of the dilemma version, i.e., *pushing* and *doing nothing* (see above), are equally available in the six-option version of the case, it is puzzling – and arguably the influence of a morally irrelevant factor – that philosophers’ intuitive judgments about these two basic options would change merely as a result of having further intermediate options.

Finally, **Horvath and Wiegmann (2022)** tested five previously investigated framing effects from the literature on judgment and decision-making (most of which had been shown to be empirically robust) in five ethical cases with laypeople and expert moral philosophers (inclusion criteria: PhD or MA in philosophy *and* moral philosophy as area of specialization or competence). They found that expert moral philosophers are also susceptible to these well-known biases over all five cases, as well as in some individual cases, such as one that implements Tversky and Kahneman’s (1981) “Asian disease” framing. In this kind of framing effect, people respond very differently to an identical prospect concerning how many people will survive a certain intervention to control the outbreak of a rare disease, depending on whether the prospect is framed in terms of losses (people killed) or gains (people saved). However, expert ethicists also turned out to be unsusceptible to the influence of a simple framing of the response option in terms of “people killed” versus “people saved” in a trolley-style scenario. As the authors emphasize, it is hard to predict the cases in which expert philosophers may in fact enjoy some “immunity advantage” in advance of experimental testing. Therefore, Horvath and Wiegmann’s findings still do not support typical versions of the expertise defense “from one’s philosophical armchair” – but they may open the door to a more qualified *empirical expertise defense* for some cases.

The picture that emerges from this brief survey of empirical evidence concerning intuitive expertise in the immunity sense is that philosophical experts, by and large, enjoy no clear advantage over laypeople in their susceptibility to philosophically irrelevant factors. Just as laypeople, philosophers fall prey to many of the same distorting influences on their intuitive case judgments, such as heritable personality traits, order of presentation, or various framing effects. From an experimental perspective, the proposed condition for the intuitive immunity of philosophical experts is not satisfied: in comparison to laypeople, philosophical experts are *not* substantially more resistant to the influence of irrelevant factors on their intuitive judgments in a wide range of cases in their areas of expertise.

Let us now consider the *indirect evidence* concerning intuitive expertise in the immunity sense. First, although the evidence on this issue is relatively scarce, it seems likely that immunity expertise mainly occurs as a *byproduct* of high degrees of mastery. This is supported, for example, by a study in the domain of chess, which reports that, while *chess*

*masters* are susceptible to *order effects* when solving chess problems, *chess grandmasters* were not affected by them (Bilalić et al. 2008). A plausible hypothesis would be that immunity expertise is not a psychologically self-standing form of expertise at all, but only the result of very high degrees of master expertise. In any case, this would explain why convincing paradigms of immunity expertise without master expertise are hard to come by. Relatedly, it would also cast doubt on the *first empirical assumption* identified above, namely, that immunity expertise is psychologically separable from master expertise. Instead, if the reported finding about chess masters and chess grandmasters should generalize, it might be practically impossible or at least highly unlikely to acquire substantial immunity expertise independently of acquiring high-level master expertise – and given that the evidence against intuitive master expertise in philosophy is strong, this would indirectly also tell against philosophers' immunity expertise.

Second, it is unclear *why* philosophical experts should be immune to the influence of irrelevant factors in the first place, such as well-known biases of judgment and decision-making, or *how* they may have acquired such expertise. For example, philosophers typically get no feedback on whether their intuitive judgments about hypothetical cases are influenced by irrelevant factors – in fact, before the advent of experimental philosophy, such issues were hardly ever discussed in philosophy. At any rate, it seems clear that inculcating immunity expertise is *not* an explicit goal of any standard philosophical training. If one adds to this that the influence of, say, order of presentation or inheritable personality traits, is introspectively opaque and not easily accessible on reflection, then it is indeed quite mysterious how professional philosophers should have acquired any intuitive immunity expertise at all (apart from acquiring it as a byproduct of intuitive mastery, which they very likely don't have; see above).

Third, there are tricky general obstacles to the acquisition of immunity expertise as well, such as the phenomenon of *bias blindspot*, which makes us unwilling to accept our own biases even in light of explicit information about them – while we have little problem to accept that other people are variously biased (see, e.g., Pronin 2007). For many philosophically irrelevant factors, it is also unclear whether we can (fully) resist them at all, or what the best way of achieving such resistance might be (see, e.g., Ahlstrom-Vij 2013). In any case, the best guess is that a truly effective form of “immunity training” would have to be very different from (what is part of) our current philosophical training.

Let me thus conclude that both the available experimental evidence and various indirect considerations tell against the assumption that philosophical experts possess anything like the intuitive immunity expertise that would be needed in order to rebut the x-phi challenge. In combination with the equally negative conclusion about intuitive expertise in the master sense, it seems no exaggeration to conclude that the intuitive expertise that proponents of the expertise defense are hoping for is largely a myth. So, to the extent that one regards the x-phi challenge as a serious problem for the philosophical method of cases, a more promising defense would be badly needed. Given this sobering conclusion, let us now turn to the *mischaracterization objection*, which may already be one of the last straws that champions of the traditional method of cases can hold onto.

#### **4. The mischaracterization objection and its consequences**

Let us set the failed defenses of intuition apologists aside for now and turn to the camp of *intuition detractors* and their main reply to the x-phi challenge: the *mischaracterization*

*objection* (cf. Sytsma and Livengood 2016). This objection is mainly based on the work of Max Deutsch (e.g., 2009, 2010, 2015) and Herman Cappelen (e.g., 2012, 2014), with some influence from Timothy Williamson's (e.g., 2004) work as well (for a recent overview, see Horvath 2022). The mischaracterization objection, as I will understand it here, can be decomposed into a *descriptive* and a *methodological* (i.e., *normative*) part. The descriptive part can again be distinguished into a *negative, intuition-detraction* claim, and a *positive, argument-affirming* claim.<sup>7</sup> While the intuition-detraction aspect of the mischaracterization objection has generated the most controversy (see, e.g., Boghossian 2014; Chalmers 2014; Nado 2016b; Weinberg 2014), the argument-affirming claim is in fact equally important for the overall view. For, without some positive story about *what other than intuition* philosophers' case judgments might be based on, the mischaracterization view would be a lot less persuasive, because it would seem rather mysterious *on what* judgments about hypothetical cases could be based *at all*. Finally, the *methodological part* of the mischaracterization objection draws certain normative lessons about philosophical methodology from its descriptive part, most notably that the x-phi challenge is simply misdirected at intuitions about cases instead of arguments for case judgments.

But let us first step back and consider in some more detail what the descriptive part of the mischaracterization objection really involves, and what the evidence for it is supposed to be. First, the *intuition-detraction claim* roughly holds that philosophers do not appeal to intuitions or intuitive judgments as crucial evidence for their judgments about hypothetical cases – contrary to widespread metaphilosophical opinion (see, e.g., DePaul and Ramsey 1998; Pust 2017). The positive, *argument-affirming claim*, in turn, holds that philosophers instead argue and give reasons for their judgments about hypothetical cases. Taken together, these two claims amount to the following *mischaracterization claim*:

(MISC) Philosophers do not appeal to intuitions or intuitive judgments about thought experiment cases as crucial evidence for their case judgments; instead, they give reasons and arguments for their case judgments.<sup>8</sup>

In light of philosophers' well-known enthusiasm for arguing with each other, this should be a highly plausible and acceptable metaphilosophical claim, but it has nevertheless been met with striking and fierce resistance (see, e.g., Bengson 2014; Boghossian 2014; Brogaard 2014; Chalmers 2014; Chudnoff 2017; Colaço and Machery 2017; Eglér 2020; Nado 2016b; Sytsma and Livengood 2016; Weinberg 2014). So, what is Deutsch and Cappelen's evidence for this "infamous" view about the method of cases? It is simply a series of case studies in which they carefully analyze how various seminal thought experiments are presented and introduced into the philosophical literature (mainly developed in Cappelen 2012; Deutsch 2015), such as Gettier cases (Gettier 1963), Burge's arthritis case (Burge 1979), or Jackson's Mary case (Jackson 1982). In these case studies, Deutsch and Cappelen spend significant effort on elaborating that there are few, if any, indications that the authors of the relevant texts appeal to intuitions as crucial evidence for their case judgments, while there are plenty of indications that the authors argue for their case judgments (and often quite extensively).

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<sup>7</sup> These distinctions, as well as the following discussion, are heavily based on my much more comprehensive analysis and defense of the mischaracterization objection in "Mischaracterization Reconsidered" (Horvath 2022). What I add to this previous paper here are some new experimental results on the psychologically efficacy of arguments for thought experiment judgments, and some further reflections on the metaphilosophical consequences of mischaracterization.

<sup>8</sup> This is a simplified version of my more detailed presentation in Horvath (2022:2).

For example, consider the following key passage from Gettier (1963:123), where he presents his verdict about the second of his two hypothetical cases that are meant to refute the traditional analysis of knowledge as justified true belief:

“But imagine now that two further conditions hold. First, Jones does *not* own a Ford, but is at present driving a rented car. And secondly, by the sheerest coincidence, and entirely unknown to Smith, the place mentioned in proposition (h) [= “Either Jones owns a Ford, or Brown is in Barcelona”] happens really to be the place where Brown is. If these two conditions hold then Smith does *not* know that (h) is true ...”

The final sentence here summarizes Gettier’s (brief) informal argument for his case verdict that Smith does not know that the proposition ‘Either Jones owns a Ford, or Brown is in Barcelona’ is true. Moreover, Gettier also indicates that the main reason why Smith does not know this proposition is that it is true “by the sheerest coincidence” in light of Smith’s evidence (which only concerns Jones’ ownership of a Ford, but not the current location of Brown). In other words, Gettier appeals to a certain kind of epistemic luck here, which is still one of the main reasons for accepting Gettier’s case verdict in contemporary epistemology (see, e.g., Engel Jr. 2015; Pritchard 2005). Finally, there is no compelling indication in Gettier’s paper that intuitions about the case play any role for why one should accept his suggested case judgment (for further discussion, see Horvath 2022).

However, despite the considerable efforts of Deutsch and Cappelen, they have nevertheless failed to convince the philosophical community of their case for the mischaracterization claim, and also of the need to take it seriously as one of the main metaphilosophical views about the method of cases. Therefore, one might think that there must be some exceptionally powerful objections to such an attractive and natural view that might explain its near-universal rejection. Not so, however. For, as I have argued elsewhere (Horvath 2022), all extant objections to the mischaracterization claim are unconvincing, and so we remain with a puzzling situation that I have expressed as follows (ibid., p. 9):

“The most charitable explanation that I can come up with is that analytic (meta)philosophers are still so much in the grip of the intuition-based view of the method of cases that they tend to automatically reinterpret Gettier (1963) and other seminal texts in this light.”

Although I cannot offer a full defense of the above claims here, I still want to briefly explain why some of the most prominent and salient replies to the mischaracterization objection are unconvincing (see Horvath 2022:3, for the full monty).

The most direct way of challenging Deutsch and Cappelen’s case for the descriptive mischaracterization claim is to challenge the case studies on which it is crucially based. For example, one might suspect that their *choice* of case studies is somehow *biased* against the intuition-based view. However, it is hard to see how it could be, given that they simply consider some of the most prominent examples of the method of cases in philosophy, such as Gettier (1963) or Kripke (1980), which are frequently cited as paradigmatic instances by proponents of the intuition-based view as well (e.g. Bealer 1996).

Nevertheless, one might object that a *more systematic analysis* of the philosophical literature will reveal that “while arguments may sometimes support philosophers’ assessment of thought experiments, [it is dubious that] this is true in general” (Colaço and Machery 2017:179). Unfortunately, philosophers who express such concerns have not presented anything like the carefully analyzed case studies of Deutsch and Cappelen, let alone a systematic review of the philosophical literature. So, at present, the objection in



question is more a vague hypothesis, pending empirical investigation, than a properly substantiated challenge to the mischaracterization claim.

Still, it is true that there are a few clear cases of philosophers who explicitly subscribe to an intuition-based method of cases as metaphilosophers, and who also apply this method in their first-order philosophical practice. One example in epistemology would be Laurence Bonjour, who is well-known for his book-length defense of a rationalist, intuition-involving conception of philosophy (1998), and who also explicitly appeals to intuition in his first-order epistemological work (e.g., Bonjour 1980). Another case in point is Frances Kamm, who both endorses an intuition-based methodology at the metaphilosophical level and also applies it in her first-order work in moral philosophy (e.g., Kamm 2007).

However, it would be a mistake to think that the existence of a few clear counterexamples to the mischaracterization claim simply rehabilitates the standard intuition-based picture of the method of cases. For, suppose that the overall share of clear instances of an intuition-based method of cases is only 20 percent, while the other 80 percent fit much better with the argument view. Even though both theoretical and experimental work on intuitions and their role in philosophy would still be warranted in this scenario, the excessive metaphilosophical focus on intuitions of the last few decades would clearly not be justified. Rather, our “division of cognitive labor” (cf. Kitcher 1990) in metaphilosophy should then better shift towards a majority of work on the role of arguments in the method of cases, while only a much smaller share of work should be devoted to intuitions. This would also hold for experimental philosophy, which should then prioritize research on arguments for case judgments over research on intuitions about cases (see below for some actual examples).

Admittedly, we currently just do not know the real figures about the proportion of intuition-based versus argument-based instances of the method of cases in philosophy. But even in light of the preliminary and anecdotal evidence from Deutsch and Cappelen’s case studies, it would be surprising if argument-based instances were so few and far between that they hardly justify any metaphilosophical attention. Moreover, once it is established that there is a non-negligible number of argument-based instances of the method of cases, this also creates considerable *normative pressure* on the intuition-based view. For, given the many problems with the intuition-based view – due to both theoretical unclarity about intuitions (see, e.g., Nado 2014; Williamson 2004) and the difficulties with rebutting the x-phi challenge (see above) – it would then be a serious methodological question whether philosophers *should* continue to appeal to intuitions about cases, given that arguing for case judgments has been established as a viable alternative (see also below).

But let us also consider a more concessive response to the mischaracterization objection, which grants most of its descriptive content (at least for the sake of the argument), yet nevertheless tries to maintain a key role for appeals to intuition. For example, it might be conceded that philosophers often argue for their case judgments, but only to add that the story doesn’t end there. For, arguments require *premises*, and these premises must be based on something as well. It is here that intuition apologists claim to have spotted a lacuna in the case for the mischaracterization view, because they argue that there is often *no obvious alternative epistemic source* for the premises in question *but intuition* (see, e.g., Brogaard 2014; Chalmers 2014; Chudnoff 2017; Nado 2016b). The main problem with this reply is that it basically just concedes the main point of the mischaracterization objection: that philosophers’ case judgments are *not* directly based on intuition or their intuitiveness, but rather on further premises and reasons. It is true that this is compatible with the claim that some of those premises and reasons may eventually turn

out to be intuition-based – but then they may also not. To really carve out some key role for intuitions in the method of cases with this strategy, considerable additional work is still needed, for example, by analyzing the argumentative chains in question deeply enough to be able to tell that they do – or even must – end with intuitions somewhere. Once again, this kind of work has not been done with anything like the care or level of detail that one finds in Deutsch and Cappelen’s case studies. Moreover, the present reply, even if successful, would still have drastic consequences for the x-phi challenge to the method of cases, given that almost all relevant x-phi work has been done on *intuitive judgments about particular cases*. However, the premises and reasons offered in support of philosophical case judgments will often *not* be judgments about particular cases, but rather more *general claims or principles*, such as ‘knowledge is incompatible with accidentally true belief’ or ‘it is morally wrong to treat another person as a mere means to an end’ (see, e.g., Brown 2017; Landes 2020). So far, almost no extant work in experimental philosophy tackles intuitions of this more general kind (maybe with the exception of Andow 2018). The present reply to the mischaracterization objection would thus have the startling “side-effect” that the x-phi challenge to the method of cases is successfully rebutted for now.

Finally, let us have a look at some attempts to unsettle the mischaracterization objection on the basis of *empirical results* from experimental metaphilosophy. Since the descriptive part of the mischaracterization objection is an empirical claim about actual philosophical practice, there is no mystery why experimental findings can be relevant to its assessment. One such attempt is based on a survey by Kuntz and Kuntz (2011) on *philosophers’ self-reported attitude* concerning the role of intuitions in philosophy (see, e.g., Sytma and Livengood 2016:91). The results of this study are quite mixed, however, because less than 30% of the surveyed philosophers agree with the strong pro-intuition claim “Intuitions are *essential to justification* in philosophical methods”. Moreover, Kuntz and Kuntz’ questions are not specifically targeted at *intuitions about particular cases*, which are the main focus of the mischaracterization claim. Lastly, given that the mischaracterization claim concerns the *practice* of the method of cases (as in the seminal texts analyzed by Deutsch and Cappelen), one might legitimately question the probative value of self-reported attitudes with respect to how the method of cases is actually carried out in practice.

A more interesting experimental challenge to the mischaracterization claim is based on findings about the psychological efficacy of arguments for thought experiment judgments. In a pioneering study, Wysocki (2017) reports that neither an argument for nor an argument against ascribing knowledge in a Gettier case of the stopped-clock type had any significant effect on participants’ case judgments. But why would it be a problem for the mischaracterization objection if it were generally true that arguments had no effect on people’s judgments about philosophical cases? First, one could challenge the *descriptive mischaracterization claim* by arguing that, given the psychological inefficacy of arguments, these arguments are probably just *post-hoc rationalizations* of our case judgments, which therefore must be really based on something else – with intuition as the most plausible candidate. Second, one could also challenge the mischaracterization objection *on normative grounds*, namely, by claiming that philosophers *should not* argue for their judgments about hypothetical cases if such arguments have no psychological effect on people’s case judgments. The issue of the psychological efficacy of arguments for case judgments is thus both metaphilosophically pressing and also interesting in its own right. The “natural expectation” would be that good arguments for (or against) a given case judgment should at least make *some* noticeable difference here. In any case, the contrary expectation would amount to an extremely bleak view about the power of (philosophical) arguments.

In fact, there are several reasons to be critical of Wysocki's (2017) investigation of argument efficacy (cf. Horvath 2022:3.6), most notably that his argument for ascribing knowledge in the tested Gettier case is even *prima facie* a bad one, because it only appeals to the practical usefulness of the protagonist's belief. To address these shortcomings, Horvath and Wiegmann (ms) first replicated Wysocki's original design, and then conducted an improved follow-up experiment that includes two further Gettier cases in addition to Wysocki's stopped-clock case. While the replication of Wysocki's original experiment was indeed successful, Horvath and Wiegmann also found that merely adding a condition with a better argument for ascribing knowledge to Wysocki's otherwise unchanged design already led to a highly significant effect (in comparison to the con-argument condition). In Horvath and Wiegmann's second experiment, they presented both the case descriptions and the arguments for and against ascribing knowledge in the more natural setting of a little dialogue between friends, and they also used arguments that are at least *prima facie* convincing. In this improved design, and with a statistically high-powered sample, they found a clear pattern of influence of the presented arguments on people's case judgments, both over all three cases combined, and also for most of the individual comparisons between pro-, con- and baseline-conditions. Even though a lot more research about the efficacy of arguments for case judgments is surely needed, the improved and broadened study by Horvath and Wiegmann clearly indicates a significant influence of *prima facie* good arguments on case judgments – also in line with pre-theoretical expectations. Thus, it seems unlikely that the issue of argument efficacy will pose a serious challenge to the mischaracterization objection.

For reasons of space, I could only cover a relatively small selection of extant replies to the mischaracterization objection here (but see Horvath 2022, for a much more comprehensive discussion). But I hope that even my limited treatment already illustrates that these replies fall short of exposing the mischaracterization objection as being just an annoying distraction from the “proper business” of intuition-based philosophy. Quite to the contrary, some of these replies only help to bring out the full force of the mischaracterization objection, especially with respect to the *x-phi* challenge to the method of cases. For, if the descriptive mischaracterization claim turns out to be correct, most relevant work in experimental metaphilosophy has been directed at the wrong target, and the *x-phi* challenge to the method of cases as we know it simply collapses.

Let me finally turn to the *normative consequences* of the mischaracterization claim for philosophical methodology, which I have already touched upon at various places in my discussion of the descriptive mischaracterization claim. To start with the simplest case, let us assume that the mischaracterization claim MISC is true of all instances of the method of cases in philosophy. What would follow for the *x-phi* challenge, and also for metaphilosophy more generally? For the *x-phi challenge*, this would be the worst-case scenario, for almost all extant experimental work focuses exclusively on *intuitions* or *intuitive judgments* about hypothetical cases (or, more neutrally, on non-inferential judgments that are not crucially supported by arguments and reasons). Since MISC holds that intuitions play no crucial evidential role for philosophers' case judgments, which are instead supported by reasons and arguments, the respective work from experimental philosophy would basically be irrelevant to the metaphilosophy of the method of cases. This would not, of course, make experimental philosophy irrelevant to the method of cases as a matter of principle, but other target phenomena and research questions would definitely be needed in order to reassert its metaphilosophical relevance. I have already given one example of this “mischaracterization-friendly” experimental metaphilosophy above: the recent work on the

psychological efficacy of arguments for case judgments (Horvath and Wiegmann ms; Wysocki 2017). This is just the beginning, of course, because many other issues about arguments and argumentation in philosophy are amenable to experimental investigation as well (see, e.g., Fischer et al. 2021). Moreover, experimental philosophers could also direct their attention to intuitions about general principles and claims, which might still play a key evidential role in philosophy even if MISC were completely true – for example, with respect to some of the premises of philosophers’ arguments for case judgments (see above). What is true, however, is that experimental philosophy would have to change its research focus quite drastically in order to maintain its metaphilosophical relevance if MISC were correct.

What would follow for metaphilosophy more generally if MISC were completely true? This would certainly expose the enormous attention that intuitions, and intuitions about hypothetical cases in particular, have received over the last few decades (see, e.g., Booth and Rowbottom 2014; DePaul and Ramsey 1998; Pust 2017) as overly excessive and at least partly misguided. Complementary to that, it would also suggest that the role of arguments and argumentation in the method of cases – and probably elsewhere in philosophy as well – has been unduly neglected by recent metaphilosophy. One suggestive piece of evidence for this claim is that the first article on argument and argumentation in the *Stanford Encyclopedia of Philosophy* has only been published last year (Dutilh Novaes 2021).

However, what if the actual situation with the method of cases is a lot more complicated than what is suggested by intuition detractors and intuition apologists alike? What if the truth about how philosophers justify their judgments about hypothetical cases lies in a much greyer area – with some instances of the argument view, some instances of the intuition-based view, some hybrid cases, and various unclear or much harder to classify instances of the method of cases? I believe that the truth about the method of cases lies indeed somewhere in this grey area, but that we currently have no clear sense about the relative proportion of its different types of instances – another issue that would require considerably more empirical investigation. Still, almost any location of the method of cases in this grey area raises a host of interesting and novel metaphilosophical questions. For a start, one might ask whether there are also ways in which philosophers support their judgments about hypothetical cases that are different from all previously considered options. Moreover, once there are alternatives on the table, one might ask which of those alternatives should be preferred: should we now always justify our case judgments by arguing for them, or should we always justify them primarily on intuitive grounds – or should we rather decide this on a case-by-case basis, or maybe even always offer both kinds of justification (if possible)? Needless to say, it would complicate things even further if there should be other viable options beyond intuitions and arguments.

Even though I can only scratch the surface here, I want to close this section by offering some considerations *why we should almost always argue for our case judgments in philosophy* (maybe with the exception of case judgments that are clearly part of the common ground of the relevant philosophical debate; cf. Cappelen 2012). First, offering explicit reasons and arguments for case judgments makes the evidential situation a lot more transparent and therefore greatly facilitates the subsequent philosophical debate, because other philosophers can then directly respond to those publicly available reasons and arguments. In contrast, purely intuition-driven debates often lead to fruitless stalemate-situations, where philosopher A simply finds P intuitive, while philosopher B just does not share A’s intuition or even finds P counterintuitive. As an aside, I think that philosophers who take their case judgments to be solely justified on an intuitive basis should also explicitly say so in their talks and published research, because this would clarify things

considerably for their hearers and readers. Second, if case judgments are non-trivial claims or have non-trivial consequences – as almost always in philosophy – it seems even normatively required to offer explicit reasons or evidence for those claims, simply as a basic norm of how academic and scientific work should be presented to other researchers. In other words, ‘Always argue for your non-trivial claims!’ seems to be one of the most basic methodological imperatives of academia (in contrast to other spheres of human activity, such as religion or one’s personal life). Finally, analyzing arguments and arguing about difficult and abstract matters is one of the most plausible kinds of expertise that philosophers can legitimately claim for themselves – unlike intuitive expertise in judging hypothetical cases, for example, which is very likely a myth (as I have argued above). To put it differently, arguing is simply “core business” for professional philosophers, while the case intuitions of philosophers, by and large, seem to be just as amateurish as those of laypeople.

## 5. Conclusion

I opened this chapter with the standard picture of the relation between intuitions and experimental philosophy: the alleged key evidential role of intuitive judgments about hypothetical cases in the philosophical method of cases, and experimental philosophy’s challenge to the epistemic trustworthiness of these judgments, based on their variation with philosophically irrelevant factors. Then I surveyed some of the main ways in which intuition apologists try to defend this standard picture against the x-phi challenge, and found most of them wanting. For the most popular of these defensive strategies, the expertise defense, I have provided a more in-depth analysis. Based on the distinction between the master model and the immunity model of intuitive expertise, I surveyed the available experimental and indirect evidence that bears on philosophers’ intuitive expertise for judging hypothetical cases in their areas of expertise. From this discussion, I have drawn the rather bleak conclusion that intuitive expertise of the envisaged kind is probably a myth on either of these two models. For, the available experimental evidence tells against both the claim that the intuitive case judgments of philosophical experts are massively superior to those of laypeople (i.e., the master model) and the claim that philosophical experts are immune to the influence of irrelevant factors on their case judgments (i.e., the immunity model). In addition, the indirect evidence from philosophical practice and the science of expertise also speak against the assumption of philosophers’ intuitive expertise because, for example, first-rate philosophers are not treated as master intuiters by other philosophers, the acquisition of immunity expertise without mastery is psychologically unlikely, and it is not plausibly inculcated by our actual philosophical training. Next, I considered the main “defensive weapon” in the intuition detractors’ arsenal, the mischaracterization objection, which has been mainly developed by Max Deutsch and Herman Cappelen (and more recently also by Horvath 2022). According to this objection, which is based on the textual analysis of seminal presentations of philosophical thought experiments, philosophers do not actually appeal to intuitions as crucial evidence for their case judgments, but instead argue for them. If correct, this would render the x-phi challenge to the method of cases irrelevant, because experimental philosophers have focused almost exclusively on intuitive judgments about hypothetical cases. The mischaracterization objection can be decomposed into a descriptive mischaracterization claim, with a negative, intuition-detraction part and a positive, argument-affirming part, and its normative, methodological consequences for philosophical practice. In light of these distinctions, I have considered a few instructive replies to the

mischaracterization objection, which are, however, unconvincing on further inspection, and which sometimes even cause significant “collateral damage”, for example, by actually supporting the metaphilosophical irrelevance of the x-phi challenge. Finally, I have considered some normative consequences of the mischaracterization objection, based on the assumption that it is either wholly or partly correct. In any case, the mischaracterization objection clearly recommends a shift away from the excessive focus on intuitions about cases in metaphilosophy and experimental philosophy, and towards more work on the role of arguments and argumentation in the method of cases. In a somewhat more speculative fashion, I have also argued for the normative claim that philosophers should always argue for their case judgments, even if they have strong intuitions about them, because an argument-based methodology would be both more transparent and philosophically fruitful – apart from directly tapping into one of professional philosophers’ “core skills”. Last but not least, my overall assessment of the role of intuitions in the method of cases and experimental philosophy is that the mischaracterization objection – currently the most promising defense against the x-phi challenge – recommends that we should scale back our obsession with intuitions about cases in both experimental philosophy and metaphilosophy. So, even if intuitions about thought experiment cases may still play a large role in many philosophical corners, they arguably shouldn’t.<sup>9</sup>

## References:

- Ahlstrom-Vij, Kristoffer. 2013. “Why We Cannot Rely on Ourselves for Epistemic Improvement.” *Philosophical Issues* 23(1):276–96. doi: 10.1111/phils.12014.
- Alexander, Joshua, and Jonathan M. Weinberg. 2007. “Analytic Epistemology and Experimental Philosophy.” *Philosophy Compass* 2(1):56–80. doi: 10.1111/j.1747-9991.2006.00048.x.
- Andow, James. 2018. “Are Intuitions About Moral Relevance Susceptible to Framing Effects?” *Review of Philosophy and Psychology* 9(1):115–41. doi: 10.1007/s13164-017-0352-5.
- Bealer, George. 1996. “‘A Priori’ Knowledge and the Scope of Philosophy.” *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 81(2/3):121–42.

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- Bengson, John. 2013. "Experimental Attacks on Intuitions and Answers." *Philosophy and Phenomenological Research* 86(3):495–532. doi: 10.1111/j.1933-1592.2012.00578.x.
- Bengson, John. 2014. "How Philosophers Use Intuition and 'Intuition.'" *Philosophical Studies* 171(3):555–76. doi: 10.1007/s11098-014-0287-y.
- Bilalić, Merim, Peter McLeod, and Fernand Gobet. 2008. "Inflexibility of Experts—Reality or Myth? Quantifying the Einstellung Effect in Chess Masters." *Cognitive Psychology* 56(2):73–102. doi: 10.1016/j.cogpsych.2007.02.001.
- Boghossian, Paul. 2014. "Philosophy Without Intuitions? A Reply to Cappelen." *Analytic Philosophy* 55(4):368–81. doi: 10.1111/phib.12053.
- BonJour, Laurence. 1980. "Externalist Theories of Empirical Knowledge." *Midwest Studies In Philosophy* 5(1):53–74. doi: 10.1111/j.1475-4975.1980.tb00396.x.
- BonJour, Laurence. 1998. *In Defense of Pure Reason: A Rationalist Account of a Priori Justification*. Cambridge: Cambridge University Press.
- Booth, Anthony Robert, and Darrell P. Rowbottom, eds. 2014. *Intuitions*. Oxford: Oxford University Press.
- Brogaard, Berit. 2014. "Intuitions as Intellectual Seemings." *Analytic Philosophy* 55(4):382–93. doi: 10.1111/phib.12051.
- Brown, Jessica. 2017. "The Gettier Case and Intuition." Pp. 191–211 in *Explaining Knowledge: New Essays on the Gettier Problem*, edited by R. Borges, C. de Almeida, and P. D. Klein. Oxford: Oxford University Press.
- Burge, Tyler. 1979. "Individualism and the Mental." *Midwest Studies in Philosophy* 4(1):73–121.
- Cappelen, Herman. 2012. *Philosophy Without Intuitions*. Oxford: Oxford University Press.
- Cappelen, Herman. 2014. "X-Phi Without Intuitions?" Pp. 269–86 in *Intuitions*, edited by A. R. Booth and D. P. Rowbottom. Oxford: Oxford University Press.
- Chalmers, David. 2014. "Intuitions in Philosophy: A Minimal Defense." *Philosophical Studies* 171(3):535–44. doi: 10.1007/s11098-014-0288-x.
- Chalmers, David. 2015. "Why Isn't There More Progress in Philosophy?1." *Philosophy* 90(1):3–31. doi: 10.1017/S0031819114000436.
- Chudnoff, Elijah. 2017. "The Reality of the Intuitive." *Inquiry* 60(4):371–85. doi: 10.1080/0020174X.2016.1220640.
- Clarke, Steve. 2013. "Intuitions as Evidence, Philosophical Expertise and the Developmental Challenge." *Philosophical Papers* 42(2):175–207. doi: 10.1080/05568641.2013.806287.
- Colaço, David, and Edouard Machery. 2017. "The Intuitive Is a Red Herring." *Inquiry* 60(4):403–19. doi: 10.1080/0020174X.2016.1220638.
- Cova, Florian, Brent Strickland, Angela Abatista, Aurélien Allard, James Andow, Mario Attie, James Beebe, Renatas Berniūnas, Jordane Boudesseul, Matteo Colombo, Fiery Cushman, Rodrigo Diaz, Noah N'Djaye Nikolai van Dongen, Vilius Dranseika, Brian D. Earp, Antonio Gaitán Torres, Ivar Hannikainen, José V. Hernández-Conde, Wenjia Hu, François Jaquet, Kareem Khalifa, Hanna Kim, Markus Kneer, Joshua Knobe, Miklos Kurthy, Anthony Lantian, Shen-yi Liao, Edouard Machery, Tania Moerenhout, Christian Mott, Mark Phelan, Jonathan Phillips, Navin Rambharose, Kevin Reuter, Felipe Romero, Paulo Sousa, Jan Sprenger, Emile Thalabard, Kevin Tobia, Hugo Viciana, Daniel Wilkenfeld, and Xiang Zhou. 2018. "Estimating the Reproducibility of Experimental Philosophy." *Review of Philosophy and Psychology*. doi: 10.1007/s13164-018-0400-9.
- Cullen, Simon. 2010. "Survey-Driven Romanticism." *Review of Philosophy and Psychology*

- 1(2):275–96. doi: 10.1007/s13164-009-0016-1.
- DePaul, Michael, and William Ramsey, eds. 1998. *Rethinking Intuition: The Psychology of Intuition and Its Role in Philosophical Inquiry*. Lanham, MD: Rowman & Littlefield.
- Deutsch, Max. 2009. “Experimental Philosophy and the Theory of Reference.” *Mind & Language* 24(4):445–66. doi: 10.1111/j.1468-0017.2009.01370.x.
- Deutsch, Max. 2010. “Intuitions, Counter-Examples, and Experimental Philosophy.” *Review of Philosophy and Psychology* 1(3):447–60. doi: 10.1007/s13164-010-0033-0.
- Deutsch, Max. 2015. *The Myth of the Intuitive: Experimental Philosophy and Philosophical Method*. Cambridge, Mass.: MIT Press.
- Devitt, Michael. 2011. “Experimental Semantics.” *Philosophy and Phenomenological Research* 82(2):418–35. doi: 10.1111/j.1933-1592.2010.00413.x.
- Dutilh Novaes, Catarina. 2021. “Argument and Argumentation.” in *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta. Metaphysics Research Lab, Stanford University.
- Egler, Miguel. 2020. “No Hope for the Irrelevance Claim.” *Philosophical Studies* 177(11):3351–71. doi: 10.1007/s11098-019-01373-2.
- Engel Jr., Mylan. 2015. “Epistemic Luck” edited by J. Fieser and B. Dowden. *Internet Encyclopedia of Philosophy*.
- Ericsson, K. Anders, Neil Charness, Paul Feltovich, and Robert Hoffman, eds. 2006. *The Cambridge Handbook of Expertise and Expert Performance*. New York: Cambridge University Press.
- Ericsson, K. Anders, and A. C. Lehmann. 1996. “Expert and Exceptional Performance: Evidence of Maximal Adaptation to Task Constraints.” *Annual Review of Psychology* 47(1):273–305. doi: 10.1146/annurev.psych.47.1.273.
- Evans, Jonathan St. B. T. 2003. “In Two Minds: Dual-Process Accounts of Reasoning.” *Trends in Cognitive Sciences* 7(10):454–59. doi: 10.1016/j.tics.2003.08.012.
- Feltz, Adam, and Edward Cokely. 2019. “Extraversion and Compatibilist Intuitions: A Ten-Year Retrospective and Meta-Analyses.” *Philosophical Psychology* 32(3):388–403. doi: 10.1080/09515089.2019.1572692.
- Fischer, Eugen, and Mark Curtis, eds. 2019. *Methodological Advances in Experimental Philosophy*. London: Bloomsbury Academic.
- Fischer, Eugen, Paul E. Engelhardt, and Aurélie Herbelot. 2022. “Philosophers’ Linguistic Expertise: A Psycholinguistic Approach to the Expertise Objection against Experimental Philosophy.” *Synthese* 200(1):1–33. doi: 10.1007/s11229-022-03487-3.
- Fischer, Eugen, Paul E. Engelhardt, Joachim Horvath, and Hiroshi Ohtani. 2021. “Experimental Ordinary Language Philosophy: A Cross-Linguistic Study of Defeasible Default Inferences.” *Synthese* 198(2):1029–70. doi: 10.1007/s11229-019-02081-4.
- Gettier, Edmund L. 1963. “Is Justified True Belief Knowledge?” *Analysis* 23(6):121–23. doi: 10.2307/3326922.
- Gobet, Fernand, and Herbert A. Simon. 1996. “Recall of Rapidly Presented Random Chess Positions Is a Function of Skill.” *Psychonomic Bulletin & Review* 3(2):159–63. doi: 10.3758/BF03212414.
- Goldman, Alvin. 1976. “Discrimination and Perceptual Knowledge.” *The Journal of Philosophy* 73(20):771–91. doi: 10.2307/2025679.
- Hales, Steven. 2006. *Relativism and the Foundations of Philosophy*. Cambridge, Mass.: MIT Press.
- Hansen, Nat, J. D. Porter, and Kathryn Francis. 2021. “A Corpus Study of ‘Know’: On The Verification of Philosophers’ Frequency Claims about Language.” *Episteme* 18(2):242–



68. doi: 10.1017/epi.2019.15.
- Hitchcock, Christopher, and Joshua Knobe. 2009. "Cause and Norm." *Journal of Philosophy* 106(11):587–612.
- Horvath, Joachim. 2010. "How (Not) to React to Experimental Philosophy." *Philosophical Psychology* 23(4):447–80.
- Horvath, Joachim. 2022. "Mischaracterization Reconsidered." *Inquiry* 0(0):1–40. doi: 10.1080/0020174X.2021.2019894.
- Horvath, Joachim. forthcoming. "Gettier's Thought Experiments." in *Epistemology of Modality and Philosophical Methodology*, edited by A. Vaidya and D. Prelević. London: Routledge.
- Horvath, Joachim, and Steffen Koch. 2021. "Experimental Philosophy and the Method of Cases." *Philosophy Compass* 16(1):e12716. doi: <https://doi.org/10.1111/phc3.12716>.
- Horvath, Joachim, and Alex Wiegmann. 2016. "Intuitive Expertise and Intuitions about Knowledge." *Philosophical Studies* 173(10):2701–26. doi: 10.1007/s11098-016-0627-1.
- Horvath, Joachim, and Alex Wiegmann. 2022. "Intuitive Expertise in Moral Judgments." *Australasian Journal of Philosophy* 100(2):342–59. doi: 10.1080/00048402.2021.1890162.
- Horvath, Joachim, and Alex Wiegmann. ms. "Arguing About Thought Experiments."
- Ichikawa, Jonathan Jenkins. 2014. "Who Needs Intuitions? Two Experimentalist Critiques." Pp. 232–55 in *Intuitions*, edited by A. R. Booth and D. P. Rowbottom. Oxford: Oxford University Press.
- Jackson, Frank. 1982. "Epiphenomenal Qualia." *Philosophical Quarterly* 32:127–36.
- Johnson, David J., Felix Cheung, and M. Brent Donnellan. 2014. "Does Cleanliness Influence Moral Judgments?: A Direct Replication Of." *Social Psychology* 45(3):209–15. doi: 10.1027/1864-9335/a000186.
- Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.
- Kamm, Frances M. 2007. *Intricate Ethics: Rights, Responsibilities, and Permissible Harm*. New York: Oxford University Press.
- Kauppinen, Antti. 2007. "The Rise and Fall of Experimental Philosophy." *Philosophical Explorations* 10(2):95–118.
- Kitcher, Philip. 1990. "The Division of Cognitive Labor." *The Journal of Philosophy* 87(1):5–22.
- Kneer, Markus, David Colaço, Joshua Alexander, and Edouard Machery. 2021. "On Second Thought: Reflections on the Reflection Defense." *Oxford Studies in Experimental Philosophy* 4:257–96. doi: 10.1093/oso/9780192856890.003.0010.
- Kripke, Saul. 1980. *Naming and Necessity*. Cambridge, Mass.: Harvard University Press.
- Kuntz, J. R., and J. R. C. Kuntz. 2011. "Surveying Philosophers About Philosophical Intuition." *Review of Philosophy and Psychology* 2(4):643–65. doi: 10.1007/s13164-011-0047-2.
- Landes, Ethan. 2020. "The Threat of the Intuition-Shaped Hole." *Inquiry* 0(0):1–26. doi: 10.1080/0020174X.2020.1742784.
- Löhr, Guido. 2019. "The Experience Machine and the Expertise Defense." *Philosophical Psychology* 32(2):257–73. doi: 10.1080/09515089.2018.1540775.
- Ludwig, Kirk. 2007. "The Epistemology of Thought Experiments: First Person versus Third Person Approaches." *Midwest Studies In Philosophy* 31(1):128–59.
- Machery, Edouard. 2012. "Expertise and Intuitions About Reference." *Theoria* 27(1):37–54.
- Machery, Edouard. 2017. *Philosophy Within Its Proper Bounds*. Oxford: Oxford University Press.
- Machery, Edouard, Ron Mallon, Shaun Nichols, and Stephen P. Stich. 2004. "Semantics,

- Cross-Cultural Style." *Cognition* 92(3):B1–12. doi: 10.1016/j.cognition.2003.10.003.
- Machery, Edouard, and Elizabeth O'Neill, eds. 2014. *Current Controversies in Experimental Philosophy*. London: Routledge.
- Machery, Edouard, Stephen Stich, David Rose, Amita Chatterjee, Kaori Karasawa, Noel Struchiner, Smita Sirker, Naoki Usui, and Takaaki Hashimoto. 2017. "Gettier Across Cultures." *Noûs* 51(3):645–64. doi: 10.1111/nous.12110.
- Nado, Jennifer. 2014. "Why Intuition?" *Philosophy and Phenomenological Research* 89(1):15–41. doi: 10.1111/j.1933-1592.2012.00644.x.
- Nado, Jennifer. 2015. "Philosophical Expertise and Scientific Expertise." *Philosophical Psychology* 28(7):1026–44. doi: 10.1080/09515089.2014.961186.
- Nado, Jennifer, ed. 2016a. *Advances in Experimental Philosophy and Philosophical Methodology*. London: Bloomsbury Publishing.
- Nado, Jennifer. 2016b. "The Intuition Deniers." *Philosophical Studies* 173(3):781–800. doi: 10.1007/s11098-015-0519-9.
- Nagel, Jennifer. 2012. "Intuitions and Experiments: A Defense of the Case Method in Epistemology." *Philosophy and Phenomenological Research* 85(3):495–527. doi: 10.1111/j.1933-1592.2012.00634.x.
- Nichols, Shaun, and Joshua Knobe. 2007. "Moral Responsibility and Determinism: The Cognitive Science of Folk Intuitions." *Noûs* 41(4):663–85.
- Nichols, Shaun, Stephen Stich, and Jonathan M. Weinberg. 2003. "Metaskepticism: Meditations in Ethno-Epistemology." Pp. 227–47 in *The Sceptics*, edited by S. Luper. Aldershot: Ashgate.
- Nozick, Robert. 1974. *Anarchy, State, and Utopia*. New York: Basic Books.
- Open Science Collaboration. 2015. "Estimating the Reproducibility of Psychological Science." *Science* 349(6251). doi: 10.1126/science.aac4716.
- Pritchard, Duncan. 2005. *Epistemic Luck*. Oxford: Oxford University Press.
- Pronin, Emily. 2007. "Perception and Misperception of Bias in Human Judgment." *Trends in Cognitive Sciences* 11(1):37–43. doi: 10.1016/j.tics.2006.11.001.
- Pust, Joel. 2017. "Intuition." in *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta. Metaphysics Research Lab, Stanford University.
- Schindler, Samuel, and Pierre Saint-Germier. 2022. "Philosophical Expertise Put to the Test." *Australasian Journal of Philosophy* 0(0):1–17. doi: 10.1080/00048402.2022.2040553.
- Schulz, Eric, Edward Cokely, and Adam Feltz. 2011. "Persistent Bias in Expert Judgments About Free Will and Moral Responsibility: A Test of the Expertise Defense." *Consciousness and Cognition* 20(4):1722–31. doi: 10.1016/j.concog.2011.04.007.
- Schwitzgebel, Eric. 2009. "Do Ethicists Steal More Books?" *Philosophical Psychology* 22(6):711–25.
- Schwitzgebel, Eric, Bradford Cokelet, and Peter Singer. 2020. "Do Ethics Classes Influence Student Behavior? Case Study: Teaching the Ethics of Eating Meat." *Cognition* 203:104397. doi: 10.1016/j.cognition.2020.104397.
- Schwitzgebel, Eric, and Fiery Cushman. 2012. "Expertise in Moral Reasoning? Order Effects on Moral Judgment in Professional Philosophers and Non-Philosophers." *Mind & Language* 27(2):135–53. doi: 10.1111/j.1468-0017.2012.01438.x.
- Schwitzgebel, Eric, and Fiery Cushman. 2015. "Philosophers' Biased Judgments Persist despite Training, Expertise and Reflection." *Cognition* 141:127–37. doi: 10.1016/j.cognition.2015.04.015.
- Schwitzgebel, Eric, Joshua Rust, Linus Ta-Lun Huang, Alan T. Moore, and Justin Coates. 2012. "Ethicists' Courtesy at Philosophy Conferences." *Philosophical Psychology* 25(3):331–

40. doi: 10.1080/09515089.2011.580524.
- Seyedsayamdost, Hamid. 2015. "On Normativity and Epistemic Intuitions: Failure of Replication." *Episteme* 12(01):95–116. doi: 10.1017/epi.2014.27.
- Shope, Robert. 2004. "The Analysis of Knowing." Pp. 283–329 in *Handbook of Epistemology*, edited by I. Niiniluoto, M. Sintonen, and J. Wolenski. Dordrecht: Kluwer Academic Publishers.
- Sosa, Ernest. 2009. "A Defense of the Use of Intuitions in Philosophy." Pp. 101–12 in *Stich and his Critics*, edited by M. Bishop and D. Murphy. Oxford: Blackwell.
- Sosa, Ernest. 2010. "Intuitions and Meaning Divergence." *Philosophical Psychology* 23(4):419–26.
- Steup, Matthias. 2014. "Epistemology" edited by E. N. Zalta. *The Stanford Encyclopedia of Philosophy*.
- Swain, Stacey, Joshua Alexander, and Jonathan M. Weinberg. 2008. "The Instability of Philosophical Intuitions: Running Hot and Cold on Truetemp." *Philosophy and Phenomenological Research* 76(1):138–55.
- Sytsma, Justin, and Jonathan Livengood. 2016. *The Theory and Practice of Experimental Philosophy*. Peterborough, Ont.: Broadview Press.
- Sytsma, Justin, and Kevin Reuter. 2017. "Experimental Philosophy of Pain." *Journal of Indian Council of Philosophical Research* 34(3):611–28. doi: 10.1007/s40961-017-0121-y.
- Tobia, Kevin, Wesley Buckwalter, and Stephen Stich. 2013. "Moral Intuitions: Are Philosophers Experts?" *Philosophical Psychology* 26(5):629–38. doi: 10.1080/09515089.2012.696327.
- Turri, John. 2017. "Knowledge Attributions in Iterated Fake Barn Cases." *Analysis* 77(1):104–15. doi: 10.1093/analys/anx036.
- Tversky, A., and D. Kahneman. 1981. "The Framing of Decisions and the Psychology of Choice." *Science* 211(4481):453–58. doi: 10.1126/science.7455683.
- Weinberg, Jonathan M. 2007. "How to Challenge Intuitions Empirically Without Risking Skepticism." *Midwest Studies In Philosophy* 31(1):318–43.
- Weinberg, Jonathan M. 2014. "Cappelen between Rock and a Hard Place." *Philosophical Studies* 171(3):545–53. doi: 10.1007/s11098-014-0286-z.
- Weinberg, Jonathan M., and Joshua Alexander. 2014. "The Challenge of Sticking with Intuitions through Thick and Thin." Pp. 187–212 in *Intuitions*, edited by A. R. Booth and D. P. Rowbottom. Oxford: Oxford University Press.
- Weinberg, Jonathan M., Joshua Alexander, Chad Gonnerman, and Shane Reuter. 2012. "Restrictionism and Reflection: Challenge Deflected, or Simply Redirected?" *The Monist* 95(2):200–222. doi: 10.5840/monist201295212.
- Weinberg, Jonathan M., Stephen Crowley, Chad Gonnerman, Ian Vandewalker, and Stacey Swain. 2012. "Intuition & Calibration." *Essays in Philosophy* 13(1).
- Weinberg, Jonathan M., Chad Gonnerman, Cameron Buckner, and Joshua Alexander. 2010. "Are Philosophers Expert Intuiters?" *Philosophical Psychology* 23(3):331–55.
- Weinberg, Jonathan M., Shaun Nichols, and Stephen Stich. 2001. "Normativity and Epistemic Intuitions." *Philosophical Topics* 29(1/2):429–60.
- Wiegmann, Alex, Joachim Horvath, and Karina Meyer. 2020. "Intuitive Expertise and Irrelevant Options." *Oxford Studies in Experimental Philosophy* 3:275–310. doi: 10.31234/osf.io/ytqna.
- Wiegmann, Alex, Yasmina Okan, and Jonas Nagel. 2012. "Order Effects in Moral Judgment." *Philosophical Psychology* 25(6):813–36. doi: 10.1080/09515089.2011.631995.
- Williamson, Timothy. 2004. "Philosophical 'Intuitions' and Scepticism about Judgement."

*Dialectica* 58(1):109–53.

Williamson, Timothy. 2007. *The Philosophy of Philosophy*. Malden, Mass.: Blackwell.

Williamson, Timothy. 2011. "Philosophical Expertise and the Burden of Proof."

*Metaphilosophy* 42(3):215–29. doi: 10.1111/j.1467-9973.2011.01685.x.

Wysocki, Tomasz. 2017. "Arguments over Intuitions?" *Review of Philosophy and Psychology*

8(2):477–99. doi: 10.1007/s13164-016-0301-8.

Ziótkowski, Adrian. 2019. "The Stability of Philosophical Intuitions: Failed Replications of

Swain et al. (2008)." *Episteme* 1–19. doi: 10.1017/epi.2019.20.