



# CURRENT CONTROVERSIES IN EXPERIMENTAL PHILOSOPHY

*Edited by Edouard Machery*



CURRENT CONTROVERSIES IN PHILOSOPHY

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# Current Controversies in Experimental Philosophy

Experimental philosophy is one of the most active and exciting areas in philosophy today. In *Current Controversies in Experimental Philosophy*, Edouard Machery and Elizabeth O'Neill have brought together twelve leading philosophers to debate four topics central to recent research in experimental philosophy. The result is an important and enticing contribution to contemporary philosophy which thoroughly reframes traditional philosophical questions in light of experimental philosophers' use of empirical research methods, and brings to light the lively debates within experimental philosophers' intellectual community. Eight chapters are dedicated to the following four topics:

- Language (Edouard Machery & Genoveva Martí)
- Consciousness (Brian Fiala, Adam Arico, and Shaun Nichols & Justin Sytsma)
- Free Will and Responsibility (Joshua Knobe & Eddy Nahmias and Morgan Thompson)
- Epistemology and the Reliability of Intuitions (Kenneth Boyd and Jennifer Nagel & Joshua Alexander and Jonathan Weinberg).

Preliminary descriptions of each chapter, annotated bibliographies for each controversy, and a supplemental guide to further controversies in experimental philosophy (with bibliographies) help provide clearer and richer views of these live controversies for all readers.

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# Current Controversies in Experimental Philosophy

Edited by  
Edouard Machery and Elizabeth O'Neill

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# Experimental Philosophy

## What Is It Good For?

ELIZABETH O'NEILL AND EDOUARD MACHERY

[E]ven if experimental philosophy is interesting, this doesn't necessarily mean that it is important. Those who insist that it marks a revolution in philosophy owe us some explanation of its significance.

—Papineau (2011, p. 83)

This volume covers four of the most intensely debated topics in experimental philosophy—semantic intuitions (Part I of the book), the folk concept of consciousness (Part II of the book), free will and responsibility (Part III of the book), and the reliability of epistemological intuitions (Part IV)—and it touches on issues that are important in the central areas of philosophy in general: language, mind, action and ethics, and epistemology. Each part presents two chapters that disagree with one another about these central topics.

The goal of this introduction is to describe several philosophical projects whose completion requires experimentation and, more generally, empirical methods, and to position the chapters of this volume in relation to those projects. The importance of empirical methods to some of these projects has already been extensively discussed, but the relevance of empirical methods for others is less widely recognized. By describing these projects in relation to experimental philosophy, we hope to make clear how important empirical methods are for philosophers and to show that such methods should be viewed as part and parcel of philosophers' toolkit. We also hope to broaden the scope of experimental philosophy and encourage it in new directions.



Here is how this introduction proceeds: In Section 1 of the introduction, we describe what experimental and other empirical methods offer to what we will call “traditional” philosophical projects. In Section 2, we review the contribution of experimental philosophy to metaphilosophical debates. In Section 3, we highlight the importance of experimentation and other empirical methods for naturalist philosophers.

## 1. Experimental Philosophy for Traditionalists

We start by discussing four ways experimental philosophy should be incorporated into “traditional philosophical projects”—that is, the kind of arguments, debates, views, issues, topics, and so on that contemporary philosophers in general recognize as being obviously part of philosophy (so, on this view, debates about free will and permissibility are in and debates about the causal nature of natural selection are out). First, experimental philosophy should often inform projects involving conceptual analysis. Second, some traditional philosophical arguments have empirical premises, which call for experimental and other empirical methods. Third, findings from experimental philosophy can be employed in traditional debunking arguments. Fourth, experimental philosophy provides us with information about biases that may affect the practice of philosophy, including biases influencing judgments about philosophical cases. These uses of experimental philosophy for traditional purposes are of course interrelated, and no doubt there are other uses as well. We offer these as just a few key ways experimental and other empirical methods should be employed in traditional philosophical projects.

### *1.1 Analysis, Explication, and Experimental Philosophy*

Some philosophers think of the business of philosophy as conceptual analysis (e.g., Goldman, 2007). Conceptual analysis can be understood in various ways, and we embrace an inclusive conception of this task here: Analyzing a concept consists in identifying other concepts that must be possessed by anybody who possesses the analyzed concept. We call “components of concepts” the concepts that are mentioned in the analysis of a concept. Component concepts can provide separately necessary and jointly sufficient conditions for the application of a concept, or just necessary conditions, or conditions that make it likely the analyzed concept applies. Philosophers may be able to analyze some concepts well enough on their own (for instance, the concepts of a limit or a bachelor), perhaps because in some such cases, their own concepts are of interest. However, when philosophers’ aim is to analyze a concept as it is employed by some population, such as the folk or a set of experts (e.g., scientists in some discipline), using empirical methods to get at the concept has important advantages. Philosophers’ concepts may differ from the concepts possessed by lay

people or by some population (e.g., biologists or psychologists), and the former may lead philosophers astray when the latter are of interest (Livengood & Machery, 2007; Sytsma & Machery, 2010). Concepts may vary from one population to the other, and this conceptual variation, which may be of philosophical interest, would be overlooked if philosophers analyze only their own concepts. Bracketing these two issues, a fine-grained analysis of a concept often requires experimental methods. Even if philosophers can correctly identify the components of a particular concept, they are unlikely to be in a position to correctly assess the weight or importance of those components. By contrast, statistical methods like regression and analysis of variance applied to large data sets can do this successfully (e.g., Griffiths, Machery, & Linquist, 2009). Finally, philosophers often identify the components of a concept by examining how judgments vary across different cases. Philosophers often underestimate how difficult it is to understand which features of these cases result in different judgments, particularly when two potentially critical features are highly correlated across cases or when some features are more salient than others. Sophisticated statistical methods like structural equation modeling and causal search algorithms applied to large data sets can be usefully applied to this issue (Rose, Livengood, Sytsma, & Machery, 2012). Many important disputes in traditional philosophy could benefit from this treatment, such as the debate about Gettier cases, because it is still unclear which of their features lead most philosophers to conclude that knowledge is not present.

Some experimental philosophers have provided relevant evidence for conceptual analysis, studying folk concepts of free will and responsibility (e.g., Nahmias, Morris, Nadelhoffer, & Turner, 2006; Nichols & Knobe, 2007; Woolfolk, Doris, & Darley, 2006; Part III of this book), causation (e.g., Alicke, Rose, & Bloom, 2011; Danks, Rose, & Machery, forthcoming; Hitchcock & Knobe, 2009; Sytsma, Livengood, & Rose, 2012; see the Supplementary Guide), and a variety of other topics (see the Supplementary Guide), as well as experts' concepts of innateness (Knobe & Samuels, 2013), and gene (Stotz, Griffiths, & Knight, 2004), among others.

One might object that experimental philosophy, as currently practiced, is not the right way to analyze concepts because survey studies collect quick, unreflective judgments, which are not an appropriate source of evidence about concepts. However, the methods of experimental philosophy are not limited to surveys about whether a concept applies in particular cases. Other empirical methods are relevant as well, including studies of usage, interviews, and cross-cultural linguistic studies, among others. For instance, Reuter (2011) examined the occurrences of "feeling pain" and "having pain" on the Web in order to determine whether laypeople distinguish the appearance and the reality of pain, whereas Knobe and Prinz (2008) have examined how often mental states are ascribed to collective entities on the Web.

One might also object that analyzing folk concepts (or perhaps even the concepts possessed by experts) does not reveal anything about their referent. Thus, analyzing the concept of knowledge may not be useful to understand what knowledge is (Kornblith, 2002, 2013). This is a complex issue that cannot be addressed in sufficient depth here, and we will only make three brief points. First, this objection does not bear on those philosophical projects that are only concerned with the concepts themselves (e.g., Griffiths et al., 2009). Second, on some views of concepts (e.g., Jackson, 1998; Thomasson, 2012), for all concepts, or perhaps for some of the concepts that interest philosophers, such as the concepts of knowledge or culture, one's concept of  $x$  determines what  $x$  could and could not be. Thus, analyzing a concept provides some information about its referent. Finally, even if one does not embrace this view of concepts, in some domains, people's concepts are likely to be accurate. For instance, Boyd and Nagel (this volume) argue that it is plausible that the folk are good at picking out cases of knowledge because it would have been adaptive for our ancestors to have the capacity to distinguish conspecifics that know certain propositions from those that do not. So, their concept of knowledge is likely to be accurate.

In addition to fitting naturally with conceptual analysis, Schupbach (2013) has recently argued that experimental methods make an important contribution to explication. In contrast to analysis, explication *modifies* a given concept in light of various goals (for instance, in Carnap's conception of explication, to provide a useful tool for some science). When the goal is to clarify and precisify a folk concept, philosophers involved in explication need to show that the proposed explication (the "explicans") does not stray too far from the concept to be explicated (the "explicandum"). Experimental methods can be used to establish this point. Furthermore, explicantia can be compared with respect to their closeness to the explicandum. Schupbach (2011) does exactly this for the concept of explanatory power, experimentally comparing various formal measures of explanatory power with laypeople's assessment of how good an explanation is.

### 1.2 Empirical Premises

Many traditional philosophical arguments involve empirical premises, even though they reach nonempirical conclusions. These premises should be evaluated: If some philosophical conclusion hangs on the solution of some still controversial empirical question, intellectual probity requires philosophers to contribute to its solution instead of just assuming that the facts are one way or the other.

Several such cases come from meta-ethics. For instance, Mackie's argument from disagreement for an error theory about ethics relies on an empirical premise: "The argument from relativity has as its premise the well-known

variation in moral codes from one society to another and from one period to another, and also the differences in moral beliefs between different groups and classes within a complex community” (1977, p. 36). This diversity of moral beliefs, Mackie (1977, p. 37) argues, is better explained as the expression of cultural values than by variation in people’s perception of objective values. Whether there is in fact widespread cross-cultural disagreement about moral questions is an issue that experimental philosophers investigated early on, and further work is called for (Brandt, 1954; see also Machery, Kelly, & Stich, 2005). Similarly, moral philosophers interested in the moral consequences of the evolution of morality (e.g., Joyce, 2006) should not just assume that morality evolved; rather, they should closely examine the empirical literature and, if necessary, they should contribute to this literature (Machery, 2012b; Machery & Mallon, 2010).

Empirical premises in traditional arguments are sometimes implicit; in other cases, the empirical nature of the relevant premises goes unacknowledged. But one need not look long before finding many relevant examples. Many arguments in ethics depend on claims about moral psychology that are best investigated empirically (Doris & the Moral Psychology Research Group, 2010; Doris & Stich, 2005), such as what sorts of behavior human beings are capable of, whether human beings are ultimately concerned with the welfare of others (Stich, Doris, & Roedder, 2010), and whether moral character exists (Doris, 2002). The same is true of arguments in applied ethics and political philosophy. Singer’s (1972) argument that we should give foreign aid hinges on the claim that various types of foreign aid are likely to reduce suffering. Indeed, any questions about the means for achieving an end are likely to involve empirical issues that can be investigated empirically. For instance, some have investigated whether a veil of ignorance is a good mechanism for achieving impartiality (Aguiar, Becker, & Miller, 2013). Examples are not limited to practical philosophy. To focus only on the philosophy of science, Laudan et al. (1986) make a strong case that theories about scientific change (including whether it is rational) should be tested against systematic studies in history of science. As they put it,

[N]ot one of these “post-positivist” theories [of scientific change] has itself been tested in more than the most perfunctory and superficial manner. Nothing resembling the standards of testing that these very authors insist upon within science has ever been met by any of their theories about science. . . . In our view, it is time to put this situation right. (Laudan et al., 1986, p. 142)

In an important series of papers, Meehl (1992, 2002, 2004) has similarly argued that epistemological theories about confirmation, induction, and so

on can and should be tested against systematic studies of the history of science, and he has described various tools and methods to bring this research program to fruition.

It would be natural to respond that experimental philosophers, with their paper-and-pencil studies examining people's responses to vignettes, are poorly equipped to tackle the empirical questions mentioned in this section. But we are not so much concerned with defending experimental philosophy as it is currently practiced than in making a case for the inclusion of experimentation and other empirical methods as an important tool for the philosopher.

It would also be erroneous to object that philosophers should just be concerned with the validity of arguments, leaving it to science to determine the truth of their premises. Waiting for science to evaluate the empirical premises our arguments rely on will just mean slower progress in philosophy because scientists are not always interested in the premises of interest to us. If we are seriously committed to the conclusions of our arguments, it behooves us to broaden our conception of philosophy, and to investigate, alone or in collaboration with scientists, the truth of our empirical premises.

### *1.3 Debunking Arguments*

An important form of argument in traditional philosophy consists in debunking a belief. This may be done by showing that the belief is the product of a causal process that is not connected in the right way to the fact of the matter. Experimental philosophy can provide evidence that supports these debunking arguments. Debunking might be thought of a subcategory of traditional arguments for nonempirical conclusions that involve an empirical premise, where the empirical premise here has to do with the causal origins of the belief.

For instance, Griffiths et al. (2009) use information about the nature of folk judgments about innateness to undermine philosophical analyses of the concept of innateness (*mutatis mutandis*, philosophical theories about innateness). They argue that philosophers' analyses are only attractive because such analyses pick out one of the three components of the folk concept of innateness and identify innateness with this component. They conclude that the attractiveness of these analyses can be explained away as the product of a folk notion. To give only another example, Singer (2005) has used Joshua Greene's empirical work on the causal sources of moral judgment to debunk intuitions against consequentialism.

### *1.4 Warrant and Psychological Processes*

There are other, less dramatic ways of using information about the causal sources of beliefs and judgments (including judgments about cases; see Section 2 of this introduction on the role of these judgments in philosophy).

In particular, one can use such information to identify potential biases and to take these into account in philosophizing. Knobe and Nichols (2008) describe what they view as “the first major goal of experimental philosophy” as follows:

The goal is to determine what leads us to have the intuitions we do about free will, moral responsibility, the afterlife. The ultimate hope is that we can use this information to help determine whether the psychological sources of the beliefs undercut the warrant for the beliefs. (p. 7)

Experimental philosophy has already produced results about possible biases, including framing effects and the influence of various demographics factors. This research is discussed further in the next section. It should now be the business of traditional philosophers to pay heed to empirical data about the possible biases influencing philosophizing and, indeed, to engage in empirical work themselves to assess the reliability of the cognitive processes involved in doing philosophy.

## 2. Experimental Philosophy for Metaphilosophers

### 2.1 *The Method of Cases*

An important feature of contemporary analytic philosophy is the role played by cases, or thought experiments, in philosophical argumentation. Philosophers consider an actual or, more often, a counterfactual, situation and judge that a particular fact holds in this situation. For instance, as part of the argument against descriptivism,<sup>1</sup> Kripke (1972) describes a case in which a speaker associates a proper name, “Gödel,” with a description that is not true of the original bearer of the name but that is true of someone else, called “Schmidt” in the story (for discussion of this case, see Part I of this book). Descriptivist theories of reference typically entail that in this situation “Gödel” refers to the man originally called “Schmidt.” But, Kripke maintains, this is just wrong:

On the [descriptivist] view . . . when our ordinary man uses the name “Gödel,” he really means to refer to Schmidt, because Schmidt is the unique person satisfying the description “the man who discovered the incompleteness of arithmetic.” . . . But it seems we are not. We simply are not. (1972, p. 84)

So, in this situation, Kripke assumes that, in the counterfactual situation just described, “Gödel” would refer to Gödel rather than to Schmidt.

Turning from the philosophy of language to ethics, we find Thomson and Foot debating trolley cases. Thomson (1985) describes Foot's so-called switch case as follows:

Some years ago, Philippa Foot drew attention to an extraordinarily interesting problem. Suppose you are the driver of a trolley. The trolley rounds a bend, and there come into view ahead five track workmen who have been repairing the track. The track goes through a bit of valley at that point, and the sides are steep, so you must stop the trolley if you are to avoid running the five men down. You step on the brakes, but alas they don't work. Now you suddenly see a spur of track leading off to the right. You can turn the trolley onto it, and thus save the five men on the straight track ahead. Unfortunately, Mrs. Foot has arranged that there is one workman on that spur of track. He can no more get off the track in time than the five can, so you will kill him if you turn the trolley onto him. Is it morally permissible for you to turn the trolley? Everyone to whom I have put this hypothetical case says, Yes, it is. (p. 1395)

So, just like Foot, Thomson assumes that in this case it would be morally permissible to save five people by causing the death of one individual.

Cases are put to many different uses in contemporary analytic philosophy. Sometimes they are simply put forward for illustrative purpose: They are meant to show how the characterization of a concept (be it an analysis, an explication, or a stipulative proposal) or a particular philosophical theory (e.g., about knowledge or permissibility) applies to a particular situation. In other circumstances (e.g., Goldman, 2007), cases are put forward because the judgments they elicit are taken to constitute evidence about the philosophically relevant concepts or beliefs people possess (e.g., the concept of knowledge or of permissibility). The assumption here is that people judge one way rather than another when they are confronted with a particular case because they possess one concept rather than another. Finally, other cases are put forward because, by considering them, philosophers come to know, or come to be justified in believing, that some particular facts hold in the situations described by these cases and can thus be assumed, at least defeasibly, in a philosophical debate. The implications or philosophical significance of these facts are then a matter of philosophical argumentation. The claim that a fact holds in a particular situation can naturally be defeated by arguments or other examples. In what follows, we are only concerned with this third use of the method of cases.

It is difficult to overestimate the importance of the method of cases in contemporary philosophy. While it is not the only method available to philosophers, it plays a very large role in areas such as epistemology (see Part



IV of this volume), metaphysics, ethics, philosophy of language (see Part I of this volume), philosophy of mind, and action theory (see Part III of this volume).

The method of cases has been understood and described in many different ways, and it is beyond the scope of this introduction to discuss them all. However, two issues are important for our present purpose. First, what kind of mental state is elicited when one considers a case of philosophical interest? Philosophers have been prone to describe philosophical cases as eliciting intuitions, and experimental philosophers have often followed suit (e.g., Machery, Mallon, Nichols, & Stich, 2004; Weinberg, Nichols, & Stich, 2001). There is, however, little consensus on what intuitions are. Some compare intuitions to perceptual experiences, and identify them with intellectual seemings (e.g., Bealer, 1996). Others identify them with specific kinds of judgment or specific kinds of inclination to judge. In particular, many identify them with non-inferred, unreflective, immediate judgments (Gopnik & Schwitzgebel, 1998) or inclinations to judge. Others identify them with judgments or inclinations to judge that have a particular modal content (about what is necessarily or possibly the case) and that hold a particular relation to what is essentially involved in possessing a concept—what they call “conceptual competence” (Sosa, 2007). Others view them as simply judgments, and doubt that they form a distinctive type of judgment (Machery, 2011; Williamson, 2007). Finally, yet others shy away from any psychological description of the mental states elicited by philosophical cases, preferring to describe the relevant assumed facts as being part of “the common ground” among philosophers (Cappelen, 2012).

The second issue concerns the nature and source of the warrant for philosophers’ assumption that a particular fact holds in a philosophically relevant case. Some, such as Ludwig (2007) or Sosa (2007), propose that we know a priori that a particular fact holds in a given case. For example, we know a priori that in a Gettier case (e.g., the clock case) the agent does not know the relevant proposition. Others focus on other types and sources of justification. Chudnoff (2011) argues that intuiting that  $p$  gives the intuiter a prima facie defeasible justification for judging that  $p$ . Yet others (Machery, 2011; Williamson, 2007) propose that, if they are justified, judgments about philosophical cases are justified on exactly the same grounds as everyday judgments. If I am justified in judging that the agent does not know the relevant proposition in a Gettier case, it is on the same grounds that I am justified in ascribing and refusing to ascribe knowledge in every day circumstances—probably because I have reliable skills for distinguishing knowledge from lack-of-knowledge cases. For all the philosophical positions just described, something about one’s judgment provides some sort of justification to the assumption that a particular fact holds in a situation of philosophical relevance. By contrast, some philosophers have little to say about the nature and source of philosophers’



warrant for taking for granted (at least defeasibly) particular facts about philosophical cases (Cappelen, 2012).

## 2.2 *Skepticism About the Method of Cases*

An influential tradition within experimental philosophy has challenged the role the method of cases plays in contemporary philosophy (Alexander & Weinberg, this volume; Feltz & Cokely, 2012; Machery, 2011; Machery et al., 2004; Swain, Alexander, & Weinberg, 2008; Weinberg, 2007; Weinberg et al., 2001). There are several distinct views about the details of experimental philosophers' challenge to the method of cases, which focus on different epistemological properties (compare Weinberg, 2007, and Machery, 2011), such as reliability or hopefulness (a source of evidence is hopeful if one has the capacity to detect its errors).<sup>2</sup> Here we will focus on reliability. One way of putting the objection against the method of cases goes as follows:

### **The Argument From Unreliability Against the Method of Cases**

1. The judgments elicited by philosophical thought experiments are significantly influenced by factors that do not track the fact of the matter.
2. If a judgment is significantly influenced by factors that do not track the fact of the matter, that judgment is not reliable.
3. If a judgment is not reliable, it cannot provide warrant for assuming its content.
4. Hence, the judgments elicited by thought experiments do not provide warrant for assuming their content.

If the judgments elicited by thought experiments do not provide warrant for taking their content for granted, then philosophers are not warranted to assume on the basis of such judgments that some facts hold in the situations described by these thought experiments. As a result, the method of cases cannot play the role it is meant to play in contemporary philosophy.

The empirical evidence collected for about a decade by experimental philosophers can be used to support Premise 1 of this argument (Parts I and IV of this book). Two main kinds of factors have been examined. First and foremost, experimental philosophers have examined whether demographic variables (culture, age, gender, language, personality variables, etc.) influence the judgments elicited by some thought experiments. For instance, Part I of this book discusses at length the evidence that judgments about the reference of proper names in situations like Kripke's Gödel case vary across cultures. Colaço, Buckwalter, Stich, and Machery (in press) provide evidence that age influences some epistemological judgments: Older people are less likely to ascribe knowledge in fake-barn cases. Second, some evidence suggests that

the way vignettes are presented (including their order) influences these judgments (Liao, Wiegmann, Alexander, & Vong, 2012; Swain et al., 2008; Wright, 2010). Assuming, plausibly enough, that the matters of fact do not vary as a function of the relevant demographic variables or the ways in which cases are presented, experimental philosophers conclude that the judgments elicited by some thought experiments are influenced by non-truth-tracking factors. They then conclude inductively that in general the judgments elicited by thought experiments are influenced by such factors.<sup>3</sup> Premises 2 and 3 deserve some discussion and defense, but for the sake of space, we bracket this task here.<sup>4</sup>

### 2.3 *Objections and Responses*

A critic could first criticize Premise 1 of the argument from unreliability against the method of cases by questioning whether the existing studies show that philosophical judgments about cases are significantly influenced by non-truth-tracking factors. These studies may be poorly designed (see, e.g., Ludwig, 2007, vs. Machery, Sytsma, & Deutsch, in press); they may not reveal people's judgments clearly (Turri, 2013); they may not reveal the judgments of the right people;<sup>5</sup> or they may target judgments that are of no philosophical relevance (see, e.g., Martí, 2009, this volume, vs. Machery, Olivola, & de Blanc, 2009, and Machery, this volume; see also Devitt, 2011, vs. Machery, Mallon, Nichols, & Stich, 2013). Alternatively, while conceding that some judgments elicited by thought experiments are significantly influenced by non-truth-tracking factors, one may reject the inductive conclusion that these judgments are in general significantly influenced by such factors as well as the weaker conclusion that they may be so influenced (see Note 3 of this chapter). Jennifer Nagel has been pressing this point by arguing theoretically (Nagel, 2012, 2013; but see Stich, 2013) and empirically (Nagel, San Juan, & Marr, 2013) that judgments about cases that are of key importance in epistemology are not significantly influenced by non-truth-tracking demographic variables.

So, are we in a position to claim that the judgments elicited by thought experiments are significantly influenced by non-truth-tracking factors? That would be premature. We have good evidence that *some* judgments are so influenced (see Machery, this volume, for a defense of this claim), but the extent to which demographic variables and ways of presentation influence the judgments elicited by thought experiments remains unclear. A recent large-scale research project led by Edouard Machery and Steve Stich ("Intellectual Diversity and Intellectual Humility in Philosophy") will hopefully cast some light on the extent and nature of these influences.<sup>6</sup>

Second, one could challenge the way the method of cases is described by experimental philosophers, and argue that, because it has been misdescribed, experimental philosophers' empirical results are irrelevant. In particular,

according to Cappelen (2012), judgments about cases play no essential role in the method of cases (see also Deutsch, 2009; Machery, this volume); rather, facts about the situations described by the philosophical cases are simply part of the common ground in philosophy. As he puts it, “a central goal of experimental philosophy is to criticize the philosophical practice of appealing to intuitions about cases” and “[t]he entire project of experimental philosophy only gets off the ground by assuming Centrality” (Cappelen, 2012, p. 219; viz., the assumption that intuitions play a central role in philosophy).

However, Cappelen (2012) says nothing about what warrants viewing some assumed facts as belonging to the common ground. Why are we warranted in assuming, for example, that it is permissible to cause someone's death in the switch version of the trolley case? Further, and more important, an argument closely related to the argument from unreliability can be deployed against the method of cases as Cappelen understands it. Studies probing the role of demographic variables on judgments about philosophical cases reveal that there is a fair amount of disagreement about whether the assumed fact (e.g., that the agent does not know the relevant proposition in a Gettier case) really holds. Now, although the epistemology of disagreement is intricate (Christensen, 2009), and although we do not argue for any specific view here, we hold that, except if there are reasons to discount the judgments of dissenters (perhaps because we are experts and they are not), it is unwarranted to accept some alleged fact into the common ground of philosophical debate when millions of people would doubt this fact. So, by providing evidence for massive disagreement, experimental philosophers cast doubt on whether some facts about the situations described by thought experiments can be justifiably considered in the common ground. Thus, the relevance of experimental philosophers' findings for the method of cases is not removed by simply denying the role of intuitions or judgments in this philosophical method.

Finally, one may object that the argument from unreliability against the method of cases shows too much. In particular, supposing that the judgments elicited by thought experiments are not a particular type of judgment or are not grounded in intellectual seemings, doubting their reliability should lead us to question the reliability of similar judgments in everyday life. For instance, if judgments about what causes what or about whether someone knows something are unreliable when elicited by thought experiments, why would they be reliable when they occur in everyday life—for example, when we judge that smoking causes cancer, when a professor judges that a student does not know her lesson, and so on. And if the latter skepticism is implausible (after all, e.g., our judgments about people's proper names are generally reliable), then the former kind of skepticism should be implausible too (Williamson, 2007).

There are two distinct lines of response to this argument, which we describe only briefly in this introduction. First, one could attempt to identify properties that distinguish the judgments elicited by thought experiments from everyday judgments, before arguing that experimental philosophers' empirical results only cast doubt on the reliability of judgments with these properties (Machery, 2011; for a criticism of this strategy, see Cappelen, 2012, Chapter 11). This strategy may lead a critic of the method of cases to acknowledge the reliability of the judgments elicited by some thought experiments, provided that these do not possess the properties in question, as well as lead her to extend her skepticism to some everyday judgments that possess these properties. Alternatively, one can reformulate the argument from unreliability against the method of cases to turn it into a piecemeal argument. Rather than questioning in general the reliability of the judgments elicited by thought experiments or the reliability of the judgments about proper names elicited by thought experiments, experimental philosophers would merely claim, for example, that the judgment about who "Gödel" refers to in the Gödel case is unreliable or that judgments elicited by fake-barn cases are unreliable. Because these judgments differ from most everyday judgments, experimental philosophers' skepticism about them does not generalize, implausibly, to everyday judgments. Because these cases are philosophically important, the piecemeal skepticism about the method of cases would be philosophically significant.

So, experimental philosophy continues to serve important purposes for metaphilosophers. It provides evidence about the influences on and diversity in judgments about cases that can be employed to argue against the method of cases, or, as in Nagel's arguments, to defend the method of cases in particular domains.

### 3. Experimental Philosophy for Naturalists

In this section, we examine the use naturalistic philosophers can make of experimental philosophy. It is common to distinguish between methodological and metaphysical naturalism, and we will follow this tradition. Metaphysical naturalists, a family resemblance kind rather than a homogenous group of philosophers, hold various views about the nature of reality, typically endorsing reductive or non-reductive materialism and the causal completeness of physics. By contrast, methodological naturalism has less to do with the nature of reality than with the nature of philosophizing, with methodological naturalists often embracing the (vague) slogan that "philosophy is continuous with the sciences." Roughly, they hold, first, that, just like scientific theories, philosophical theories (or at least many of them) are about things in the world (mind, cognition, knowledge, etc.)—we call the questions about these things

“first-order questions.” This contrasts with the view that philosophical theories are about the concepts of these things (the concepts of mind, knowledge, etc.) or the meaning of the words referring to these things (e.g., the meanings of “mind,” “knowledge,” etc.)—we call questions about concepts or meaning “second-order questions.” Second, they hold that there is no distinctive philosophical method (i.e., no philosophical method that is not also found in other disciplines), and third, they hold that, to meet their theoretical goals, philosophers should rely on any method and data found in the sciences. Here we are concerned with the promises of experimental philosophy to methodological naturalists.

### 3.1 *Naturalists' Reservations*

Naturalists have often expressed reservations about experimental philosophy. In a nutshell, on their view, experimental-philosophy studies proceed by eliciting judgments about particular cases, which are typically, although not always, drawn from or inspired by the philosophical literature. Their results can, at best, provide evidence about how experimental participants—typically laypeople—conceptualize various things, such as reference (see Part I of this volume), consciousness (see Part II of this volume), intentional action (see the Supplemental Guide), or causation (see the Supplemental Guide), but not about the nature of these things. As a result, findings in experimental philosophy have little to bring to the naturalists. Papineau (2011) expresses this concern, although he ends up finding two minor roles for experimental philosophy: assessing the trustworthiness of the judgments elicited by thought experiments (Sections 1.4 and 2 of this introduction and Parts I and IV of this volume) and describing people's philosophically relevant judgments and the psychological mechanisms behind them (Parts II and III of this book).

As a result, experimental-philosophy studies often appear to naturalists to be a return to a foregone area of philosophy, one concerned with concepts or meaning (Papineau, 2013, pp. 188–189). In a recent essay, Kornblith (2013) puts his views about experimental philosophy as follows:

[M]uch (though not all) of the work that experimental philosophers have done and wish to do is misdirected, indeed, . . . it is misdirected in much the same way, I believe, that a good deal of armchair theorizing in philosophy is. So I will be arguing in defense of a thoroughly empirically informed approach to epistemology, but one which is fundamentally different from that pursued by the experimental philosophers. (p. 197)

In the remainder of this section, our goal will be to alleviate naturalist philosophers' reservations toward experimental philosophy and bridge the rift between the two. In a nutshell, we advise experimental philosophers to expand

the reach of experimental philosophy, and we advise naturalist philosophers to more fully embrace their naturalism by engaging in empirical work.

### *3.2 Broadening Experimental Philosophy*

Naturalists' reservations toward experimental philosophy are grounded in their characterization of what experimental philosophers do—examine the judgments elicited by philosophically relevant thought-experiments—and of what can be learned from examining these judgments—at most the trustworthiness or untrustworthiness of these judgments and the nature of the concepts these judgments are derived from. Because this characterization is partly correct—for instance, Nadelhoffer and Nahmias (2007, p. 123) state that existing experimental philosophy “shares a commitment to using controlled and systematic experiments to explore people’s intuitions and conceptual usage and to examine how the results of such experiments bear on traditional philosophical debates”—naturalists' reservations about experimental philosophy should be viewed as an invitation to broaden the kind of research currently done in experimental philosophy.<sup>7</sup>

What does a broadening of experimental philosophy amount to? At least two things: a broadening of subject matter and a broadening of methods. First and foremost, it consists in expanding what experimental philosophers hope to learn from their experimental research. In its current state, experimental philosophy already extends beyond the narrow notion some naturalists may have of it as just collecting intuitions about cases out of an interest in the content and trustworthiness of those intuitions. As illustrated in this book, although much of experimental philosophy today has to do with identifying patterns of judgments about cases and the causes of such judgments for the purpose of assessing the trustworthiness of such judgments (e.g., judgments about cases from epistemology—see Part IV of this volume; judgments about the reference of proper names—see Part I of this volume), experimental philosophers are also engaged in projects to develop accounts of the psychological mechanisms underlying certain domains of judgments (e.g., folk theories about free will and responsibility—see Part III of this volume). Many studies eliciting judgments from vignettes are less interested in the exact content of these judgments than in characterizing the psychological mechanisms underlying them. Danks, Rose, and Machery (forthcoming) have recently examined whether causal learning is influenced by the moral valence of the causal relations to be learned. Causal judgments about cases were elicited, but Danks and colleagues were not interested in the content of these judgments. Rather, the pattern of judgments they observed was used to infer that, in contrast to explicit and verbalized causal judgments, causal learning is not influenced by morality. In his recent work on the role of emotions in moral judgment, Jesse Prinz examined whether consuming a bitter liquid (assumed to elicit a disgust reaction)

or hearing unpleasant noises influence people's moral judgments, which were elicited by various vignettes (Eskine, Kacirik, & Prinz, 2011; Seidel & Prinz, 2013). As was the case for Danks and colleagues, the content of these judgments is of no particular interest to Prinz. Thus, part of what experimental philosophers are doing is investigating some of the first-order questions that naturalistic philosophers deplore experimental philosophers ignore.

An even broader experimental philosophy of mind or psychology (for instance) would bear on understanding what beliefs are, whether the mind is computational, whether perceptual experiences are penetrated by propositional attitudes, what role attention plays in action, and so on. Naturally, there is no reason to limit the broadening of experimental philosophy to the field of psychology: Issues in biology, chemistry, or physics that are of interest to naturalist philosophers would fall within the purview of experimental philosophy as well.

In fact, to a large extent, this more extensive broadening of experimental philosophy is already occurring. Many studies are explicitly about issues other than describing the content of people's judgments or identifying factors that influence those judgments out of interest in the content and trustworthiness of those judgments. Schwitzgebel has examined whether studying moral philosophy resulted in more moral behavior, a claim often found in classical philosophy. Instead, he found that moral philosophers are more likely to steal books from library and to leave trash in conference rooms than other philosophers (Schwitzgebel, 2009; Schwitzgebel, Rust, Huang, Moore, & Coates, 2012). Livengood, Sytsma, Feltz, Scheines, and Machery (2010) have examined whether philosophers possess some distinctive epistemic virtues, and they have found that, at every level of education, philosophers are more likely to distrust their spontaneous judgments (their gut reactions) than equally educated people.

Expanding the kind of questions addressed within experimental philosophy requires expanding the range of experimental methods to which experimental philosophers appeal. They should avail themselves of the complete range of experimental methods used in the sciences. Nonexperimental empirical methods such as interviews and qualitative studies could also be fruitfully used by experimental philosophers. Some experimental philosophers are leading by example. Adam Arico and colleagues (Arico, Fiala, Goldberg, & Nichols, 2011; see Part II of this volume) measured people's reaction times to identify the cues people use to decide whether an entity can have conscious experiences, whereas Young, Nichols, and Saxe (2010) used functional magnetic resonance imaging (fMRI) to study judgments about moral luck. Machery and Cohen (2012) use quantitative citation analysis to study evolutionary psychologists' acquaintance with evolutionary biology.

In addition, some philosophers not usually categorized as experimental philosophers have long incorporated certain empirical methods into their



work. Philosophers of science are likely to engage in scientific work themselves, both to investigate the operations of the sciences and to investigate scientific questions that bear on topics that interest them. For instance, philosophers of biology have employed simulations for the purpose of learning about phenomena such as generative entrenchment and the emergence of social norms (Muldoon, Lisciandra, Bicchieri, Hartmann, & Sprenger, in press; Wimsatt & Schank, 1988). Philosophers of science frequently employ case studies, ethnographic methods, and other social-scientific tools to investigate the operation of the sciences, including questions about conceptual change and the nature of things such as models (e.g., Giere, 1988; Hull, 1988; Nersessian, 2012). Those philosophers who now employ these various empirical methods might think of themselves as within the fold of experimental philosophy, broadly understood, and are encouraged to employ the range of empirical methods that might bear on the philosophical questions that interest them.

That said, pencil-and-paper studies examining people's judgments about cases (a.k.a. vignettes) can be brought to bear on a larger range of questions than critics of experimental philosophy realize (which is not to say that pencil-and-paper studies do not raise specific methodological problems). Variation in judgments across cases as a function of carefully controlled variables provides evidence about the cues that influence judgments, and thus about the cognitive mechanisms outputting these judgments. Psychologists have fruitfully used this methodology. To give a single example among many, Kahneman, Tversky, and the researchers working in the heuristics-and-biases tradition have extensively used vignettes to provide evidence about the heuristics underlying decision and judgment (see, e.g., the yellow and blue cab case or the mammography vignette).

One may perhaps feel that, although interesting, the issues examined in this broadened experimental philosophy fall entirely beyond the scope of philosophy (Papineau, 2011). In their influential manifesto, Knobe and Nichols (2008) responded to a similar concern by arguing that, because past philosophers (e.g., Aristotle, Hume, Descartes) were concerned with these very first-order questions or with similar ones, these issues clearly fall within philosophy. They write that

[T]he only legitimate controversy here is about whether this sort of inquiry can legitimately be considered philosophy. That is, someone might think that it is all well and good to launch an inquiry into basic questions about human nature but that such an inquiry should not take place in a philosophy department . . . Now, it is true that some philosophers have thought that questions about how the mind works lie outside the proper domain of philosophy, but this is a relatively recent development. Throughout almost all of the history of philosophy, questions



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