Introduction

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Experimental philosophy "has rudely challenged the way professional philosophers like to think of themselves", for unlike traditional philosophers, who produce their theories by reasoning alone, the advocates of the new movement are "convinced that [they] can shed light on traditional philosophical problems by going out and gathering information about what people actually think and say." Those were Anthony Appiah's words, describing experimental philosophy for the general public, in 2007. There is no question that experimental philosophy, or X-Phi as it is usually known, a movement that started at the turn of the century, has been a source of controversy. Some philosophers have dismissed it as an inconsequential fad, whose impact on real philosophical theorizing is spurious. For some others, on the contrary, the results brought forward by X-Phi practitioners reveal how misguided the methods used by traditional philosophers are; how unmotivated, and unmotivating, their conclusions.

The controversy that surrounds X-Phi is undeniable. It is less clear though, what the movement consists in, what impact the results should have on philosophical theories, and even whether there is a unifying methodological theme that all advocates and practitioners share. Some of the papers in the present volume question how to interpret the origins, the core objectives and the methods of X-Phi. Others address more specific issues, proposing new methods, providing new data or engaging critically with prior discussions. Collectively, they contribute to advance substantially the discussion in, and about, X-Phi.

Historically, the origin of X-Phi is tied to the idea that the main focus of the movement is to test the universality and the strength of the intuitions that philosophers often use in illustrating and supporting a philosophical claim. Experimental philosophers have often complained

that when traditional philosophers report intuitions and common sense judgments based on intuitions, they are actually reporting just their own intuitions, which are often not shared by a substantial portion of the population. This, experimental philosophers point out, is particularly patent in the work of moral philosophers who routinely disregard the mountain of evidence reported in the psychology literature, as Stich and Weinberg (2001) have pointed out. Experimental philosophers invite philosophers to stop theorizing from the proverbial armchair and to engage in really finding out what seems natural or intuitive to others beyond themselves. The push to test intuitions applies not only to ethics but to other areas of philosophy as well. And the way in which experimental philosophers typically have sought to collect their data has consisted in eliciting responses to vignettes designed to present the cases and mental experiments that traditional philosophers tend to use. Thus, just to cite a few examples, Machery, Mallon, Nichols and Stich (2004) argued that the intuitions about reference that fuelled the semantic revolution initiated by Kripke, Donnellan and others, are in fact culturally dependent, as, according to their findings, those intuitions are common among Westerners but not so among East Asians. To establish their results, they surveyed subjects in different cultures using one of the counterfactual cases that Kripke himself used to illustrate what he views as a natural and intuitive response. Similarly Weinberg, Nichols and Stich (2001) questioned the solidity of the intuitions that underlie knowledge attributions in the Gettier cases, citing evidence of cultural dependence, and Knobe's (2003) survey famously established that attributions of intentionality are influenced by the perceived moral value of the consequences of an action, questioning the independence of intentionality and moral worth that philosophers of action and ethicists regard as a principle underlying our very conceptions of intention and value, our natural reactions of praise and blameworthiness.

Some of those tests have been found to be problematic, or have been resistant to replication [see Nagel (2012)]. Nevertheless, a substantial portion of work in X-Phi has been conducted under the assumption of the centrality of the task of intuition testing using the survey method, an assumption shared also by critics of the movement. Thus, some of the critics have focused on specific failures of the designs [see, for instance, Lam (2010)]; others have argued that the type of intuitions elicited in particular cases are of no use to the task of the theorist [Martí (2009); Devitt (2011)]. Others have reacted against more general aspects of the X-Phi stance, questioning the value of eliciting intuitions by non-

experts, something that has generated an intense debate around the expertise defense of traditional philosophical methodology [see, among many others, Devitt (2012), Machery (2012) and Schwitzgebel and Cushman (2012)]. Others have denied the evidentiary value of intuitions of experts and non-experts alike [Weekes and Schroer (2013)] or the fundamental role that experimental philosophers allege them to have [Williamson (2007)]. Others have gone even further, denying that intuitions have any role to play in philosophical theorizing [Cappelen (2012)].

This has created the perception that the discussion in X-Phi, at least in its origins, revolves around the role of intuitions and the methods to elicit the appropriate ones. That perception of the origins of X-Phi and the conception of its main objectives is contested by JUSTIN SYTSMA in the paper that opens this special issue. According to Sytsma the view that takes the study of intuitions as the central focus corresponds to a narrow conception of what X-Phi is about. More broadly, Sytsma sees X-Phi as a reaction to the reliance by philosophers on empirical claims that go untested and are thus unsupported by evidence. Sytsma observes that often philosophers make empirical claims, and not all of them are about what seems natural or intuitive to people. All that X-Phi has brought to the fore is the need to provide evidence, empirical evidence, for empirical claims. Sytsma's argument is not just a proposal about how X-Phi should be viewed, it is a historical description of what X-Phi has always been, for according to Sytsma the broader conception of X-Phi can be traced to its very origins and can be detected in many of the works of experimental philosophers that do not revolve around people's intuitions.

A question that may arise reading Sytsma's paper is how far the broad conception can go in characterizing empirical research as experimental *philosophy*. Consider for instance Michael Devitt's causal approach to reference, an approach according to which causal interactions and neurophysiological processes account for the bestowal of a name and the transmission of its use. The study of those processes corresponds to the physicist, the chemist and the neuroscientist, and although the results are relevant for philosophy, it is not clear that they should count as philosophy, experimental or not. The broad conception of X-Phi may lead to a blurring of the line between philosophy and the empirical sciences, a result that some may find objectionable, but that may be, from the point of view of many others, extremely welcome.

Moving away also from the narrow conception that sees the debate as revolving around intuitions, JEFFREY MAYNES' paper proposes a new assessment of the role of the results obtained by experimental philoso-

phers. According to Maynes, in testing the universality of the intuitions philosophers often use to buttress their claims, the work of experimental philosophers has an essentially dialectical purpose; for it provides evidence, not only about intuitions, but in general about the beliefs and assumptions that can be taken to be part of a common ground on which there is general agreement. If philosophers support, or simply illustrate, their claims by pointing out how intuitive, obvious or commonsensical they are, it seems simply reasonable to try and find out whether a substantial portion of the population shares the philosophers' perception of the status of those claims.

A rather important issue for Maynes' stance has to do with the assessment of the impact that findings of extended agreement should have on the defense or criticism of philosophical theses. One might argue that quasi-universal agreement should not entail endorsement, as many people would agree that one of the fundamental purposes of philosophy is to provide a critique of our universally held conceptions. We only need to remind ourselves of Descartes' methodical doubt, to give an obvious example. The attitude of critical reflection on what is taken for granted is in itself, Maynes argues, a defense of the value of experimental philosophy, for X-Phi provides relevant data about agreement and disagreement.

Like Sytsma and Maynes, NICHOLAS MCGINNIS focuses on the conception and purpose of experimental philosophy. Following Sytsma's plea for a broad conception of X-Phi, McGinnis argues in favor of the view, proposed by Knobe (2016), that X-Phi falls under the umbrella of cognitive science. McGinnis focuses on the consequences of that conception of X-Phi for semantics, and argues for a radical form of localism and individualism. On McGinnis' view, the correct interpretation of the results put forward by experimental semanticists gives us evidence of the extremely variegated cognitive processes that underlie speakers' intuitions about reference, and in general, their language use. McGinnis concludes that the hope for a universal theory of semantic reference is misguided, as we can only count on instances of reference by individual speakers in specific occasions.

ÅSA WIKFORRS, who like McGinnis reflects on experimental semantics, defends a conclusion that is perhaps not so radical, but that is also controversial from the point of view of traditional semantic theory: Wikforss views the work of experimental semanticists as providing a basis to support semantic pluralism. She takes issue with the criticisms leveled by Martí (2009) and (2012) at Machery, Mallon, Nichols and Stich (2004) and Machery, Olivola and DeBlanc (2009). Wikforss argues against Martí's

claim that the results the experimentalists report do not constitute adequate input for semantic theorizing, since they do not test actual usage, the basis on which the semanticist starts their reflection. Wikforss concludes that the results reported by Machery and companions [especially in Machery, Olivola and DeBlanc (2009)] do provide the requisite evidence. As a consequence, she argues, philosophers of language should take those results seriously and embrace a form of pluralism, endorsing the view that the semantic account of how proper names function in natural language has to accept the cohabitation of more than one explanation of how a use of a name connects to a referent. If Wikforss is right, philosophers ought to abandon the idea that semantic theory should offer a unique account of the relation of reference; her conclusion should lead also to a reinterpretation of the debate between descriptivists and anti-descriptivists, a debate that has dominated the philosophy of language since 1970. If the semantics of names is plural, the debate is moot.

EUGEN FISCHER and PAUL E. ENGELHARDT'S paper exemplifies also the broad approach to X-Phi and establishes a specific connection with cognitive science, proposing a psychological explanation of certain intuition-based inferences. It often happens that in philosophical discussions, some conclusions that apparently fly against common sense are derived by what seems to be an impeccable argument from completely uncontroversial premises. One of those cases is the argument from hallucination, that appears to lead us to the postulation of nonphysical objects of perception. In a hallucination, a subject seems to see a physical object which is not there. The experience of the subject is qualitatively indistinguishable from that of seeing a physical object. So, in a phenomenal sense of 'seeing', 'the subject sees an object' is true. From there, the argument goes, it follows that there is a (non-physical) object that the subject sees, the sense-datum. According to Fischer and Engelhardt's diagnosis, the argument is incorrect because the step from 'the subject sees an object' to 'there is an object that the subject sees' is a faulty automatic inference. The authors rely on the analysis of a linguistic corpus and two experiments to develop an explanation of this mistake as a cognitive illusion. There are automatic cognitive processes that associate to the standard visual sense of the verb 'see' some stereotypical inferences, such as the existence of something in the vicinity of the subject who sees. These processes misfire when, in the presence of a phenomenal sense of 'see', we still draw the same inferences, such as the existence of the perceived object. Fischer and Engelhardt's paper is an example of the use of em-

pirical methods inspired in cognitive science to diagnose philosophical problems.

ADRIAN A. ZIÓŁKOWSKI'S paper focuses on the experiments designed to test folk intuitions about the context sensitivity of certain expressions. The typical experiments designed to test whether an expression is context-sensitive ask the experimental subjects to evaluate sentences containing that expression used in different contexts. There are two alternative experimental designs to do this: in a *within-subject* design the different contexts are presented to all subjects, while in a *between-subject* design each context is presented to a different group of people. Ziólkowski's paper addresses the methodological issue of the adequacy of these experimental designs. Ziólkowski tests, in a bigger sample, two of the cases discussed by Hansen and Chemla (2013), using an experimental design that allows him to extract data for both a within-subject and a between-subject design in one single experiment. The contextual effects can be observed more readily in the within-subject design. However, Ziólkowski argues that there are strong reasons to prefer a between-subject design, a design that, as it turns out, dampens the contextual effect. It would be interesting to explore further whether his conclusion about the preferability of between-subject designs can be extended to other fields of experimental philosophy.

PAUL POENICKE and MICHAEL CROCE also tackle an issue concerning the opposition of contextualist and invariantist explanations of semantic phenomena, but this time restricted to the case of attributions of knowledge by testimony. The authors want to test whether practical interests affect the attribution of testimonial knowledge. The accounts of testimony fall into two groups depending on what is required for the hearer to accept the testimony of a speaker: reductionism demands that the hearer possess non-testimonial evidence, while for non-reductionism the absence of defeaters against the reliability of the speaker suffices. After a careful review of several cases that involve testimony in the literature on experiments about stakes effects for knowledge, Poenicke and Croce conclude that stakes effects undermine both reductionist and non-reductionist accounts of testimony if one adopts an invariantist notion of knowledge, but they can be accommodated in some non-invariantist theories of knowledge. The authors end their paper by suggesting several issues to explore experimentally in the epistemology of testimony.

The paper that closes the volume offers a sustained criticism of the methodology most favored by experimental philosophers: the presentation of vignettes and questionnaires followed by a quantitative analysis of

the results. DAVID MOSS focuses on the experimental philosophy litera-ture on folk meta-ethics that tries to ascertain whether people's intuitions support moral objectivism or moral relativism. He presents two chal-lenges to the quantitative method: (i) the problem of comprehension: it is unclear whether the experimental subjects understand the questions as the researchers intended, and (ii) the problem of complexity: the moral views of the participants' in the experiment are considerably more com-plex than the data, consisting of responses to few and oversimplified questions, may reveal. He favors a qualitative interview method, in which the philosopher uses slightly structured interviews with subjects, more in line with what philosophers traditionally have done since the time of Soc-rates. However, there is an important difference with the Socratic method: in the qualitative method Moss proposes, the philosopher does not en-gage in philosophical discussion with the subject. Otherwise there would be a danger that the philosopher interviewer may manipulate -even if unwittingly- the views of the subject, or that in an interview situation a phenomenon of rampant accommodation of subjects trying to say the right thing may arise. But these problems, Moss claims, are even more acute in the standard quantitative method. Moss wants to collect evi-dence about the actual metaethical views of the subject, however incom-plete or confused, not about the views they would defend after a philosophical reflection on metaethical problems. Moss' arguments, and the literature he relies on, present a challenge to the use of the standard quantitative method in metaethics. An important question is the extent to which those arguments can be extended to other fields of application of experimental philosophy.

As the sample of papers that compose this issue of **teorema** show, experimental philosophy is a rich and mature field of research, not only for its wide application to enhance the comprehension of different philo-sophical problems, but also for the level of sophistication of the reflection on its own methods, in the service of a more adequate justification of the empirical claims that are intertwined with many philosophical theories.

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