

Introduction

James R. Beebe

Experimental philosophers attempt to bring the experimental methods of the cognitive and social sciences to bear on questions of perennial philosophical concern.¹ Despite having precursors in empirically informed philosophy and cognitive science, experimental philosophy as a recognizable discipline did not emerge until the turn of the twenty-first century with the groundbreaking work of Weinberg et al. (2001), Nichols et al. (2003) and Knobe (2003a, 2003b). Weinberg et al. focused their initial investigations on folk intuitions about epistemic matters—that is, those pertaining to knowledge and evidence. The present volume presents some of the latest, cutting-edge research in the subfield that has developed in the wake of Weinberg, Nichols, and Stich's seminal work.²

One strand of experimental epistemology has followed Weinberg et al.'s lead in investigating folk intuitions about Gettier cases—that is, cases where justified true belief is allegedly present without knowledge. The results, however, have been equivocal. Weinberg et al. (2001) reported that a significant majority of Western participants judged that a subject in a Gettier-style thought experiment “only believes” rather than “really knows” a certain true proposition. However, Starmans and Friedman (2012) found that—contrary to received philosophical wisdom—participants were quite willing to say that subjects in Gettier situations “really know.”

When Cullen (2010) replicated the Gettier studies of Weinberg et al. but instructed participants to choose between saying that the protagonist in the thought experiment “knows” and “does not know” (instead of “really knows” versus “only believes”), he found that less than half of the participants chose “knows.” More recently, Nagel et al. (2013) found that participants reliably distinguish between justified true beliefs in Gettier cases and unGettiered

controls. To make matters more complicated, Beebe and Shea (2013) report that whether participants attribute knowledge in a Gettier case can depend upon the moral valence of the actions described in the case.

In one of the contributions to this volume (“Semantic Integration as a Method for Investigating Concepts”), Powell et al. describe and recommend a new method for investigating folk epistemological concepts that they hope will overcome some of the limitations of the vignette-based methods commonly used in experimental philosophy and lead to a better understanding of folk epistemic judgments in Gettier cases and other cases like them. Their method of semantic integration relies upon a memory task, in which participants are asked to read a story and perform a recall task after some delay. For example, in a story that describes Dempsey’s evidence for Will’s guilt, the target sentence “Whatever the ultimate verdict would be, Dempsey thought Will was guilty” appears. Powell et al. found that when Dempsey is described as having good evidence for his belief in a normal (as opposed to Gettierized) situation, participants were significantly more likely to fill in the blank in the following sentence with “knows” than when Dempsey was described as being in a Gettierized situation: “Whatever the ultimate verdict would be, Dempsey _____ Will was guilty.” Powell et al. suggest that the implicit measure at the heart of the semantic integration task may have advantages over more commonly used explicit measures, in which participants are simply asked directly whether or not a subject knows or really knows some proposition. Given the current debate within experimental epistemology, this new and powerful tool will certainly be a welcome addition.

A second important topic of research within experimental epistemology focuses on the question of whether or not it is correct to attribute knowledge when skeptical possibilities have been raised, if one’s present evidence seems incapable of ruling out those possibilities. Weinberg et al. (2001) found that Western participants were generally disinclined to attribute knowledge when they were told that a subject would be unable to tell if her evidence was misleading. Nagel et al. (2013) obtained corroborating results. In this volume Joshua Alexander, Chad Gonnerman, and John Waterman (“Salience and Epistemic Egocentrism: An Empirical Study”) provide evidence that participants’ disinclination to attribute knowledge in these cases may be due to epistemic egocentrism—that is, the tendency to overattribute our

own beliefs and concerns to others. Alexander, Gonnerman, and Waterman show that regardless of whether a possibility of error is described as being entertained by a subject or whether it is simply reported by an omniscient narrator while remaining unknown to the subject, participants take the error possibility to affect whether the subject has knowledge. The authors also show how understanding epistemic egocentrism is important when trying to adjudicate claims about whether data about folk epistemic intuitions provide confirmation or disconfirmation for invariantist or contextualist accounts of the semantics of “knows.”

Perhaps the most active area of research and debate within experimental epistemology concerns the relative merits of invariantism, contextualism, and interest-relative invariantism—at least as they purport to square with empirical data about folk epistemic intuitions. According to contextualists (e.g., DeRose 2011), the strictness of epistemic standards vary across conversational contexts, and these standards determine how strong one’s evidence must be in order to have knowledge. According to those who defend interest-relative invariantism (e.g., Hawthorne 2004; Stanley 2005; Fantl and McGrath 2009), a subject needs to have stronger evidence in order to have knowledge in a high-stakes situation than in a low-stakes situation. In a series of articles from Buckwalter (2010), May et al. (2010), Feltz and Zarpentine (2010), and Phelan (forthcoming), researchers reported failing to find evidence that folk attributions of knowledge or rational belief vary in ways that were allegedly predicted by epistemic contextualism and interest-relative invariantism. The authors of these papers attempted to raise epistemic standards in two different ways, each of which has led to a somewhat different strand of research in experimental epistemology.

The first kind of manipulation—used by Buckwalter (2010) and May et al. (2010)—involves raising the possibility that a protagonist’s belief might be mistaken, even though it is justified. The second manipulation—used by Buckwalter (2010), May et al. (2010), Feltz and Zarpentine (2010), and Phelan (forthcoming)—involves raising the costs to a believer of having a false belief about some practical matter. In regard to error possibilities, even if raising them does not always lead participants to refrain from attributing knowledge, it has been shown to have this effect at least some of the time (cf., e.g., the results of Weinberg et al. (2001), Nagel et al. (2013), and Alexander, Gonnerman,

and Waterman described above). The situation regarding stakes, however, is more complex, and there has not yet emerged any consensus as to whether knowledge attributions are sensitive to stakes.

In response to the first wave of studies that failed to reveal an effect of stakes on knowledge attributions, Pinillos (2012) decided to eschew asking participants whether or not a hypothetical subject had knowledge and instead asked them how many times a subject needed to proofread a paper or count the coins in a jar in order to know that there were no typographical errors in the paper or know the number of coins in the jar. When the stakes in each of these situations were varied, Pinillos found there was a significant difference between the numbers reported by participants in the contrasting conditions. Buckwalter and Schaffer (forthcoming) have argued that Pinillos' (2012) results may tell us nothing in particular about the folk conception of knowledge on the grounds that the same kind of stakes effect can be found with belief ascriptions. In this volume, Buckwalter ("The Mystery of Stakes and Error in Ascriber Intuitions") expands upon his work with Schaffer and argues that the primary factor responsible for observed differences in folk knowledge attributions—when they have been observed—is how salient the possibility of error is to the person ascribing knowledge and not how high or low the stakes are. Buckwalter contends that researchers who failed to find an effect for error possibilities simply did not present those possibilities concretely or vividly enough.

In this volume, Pinillos and Simpson ("Experimental Evidence in Support of Anti-Intellectualism About Knowledge") extend Pinillos' earlier work by examining the extent to which it matters that a subject in a high-stakes situation is aware of this fact. After replicating Pinillos' original results, Pinillos and Simpson show that participants think that subjects who are not aware that they are in high-stakes situations should check the basis for their beliefs significantly more times than subjects in low-stakes situations do. Pinillos and Simpson also attempt to respond to Schaffer and Buckwalter's objections with a combination of philosophical argument and experiment.

In a paper mentioned above, Phelan (forthcoming) reports (i) that in between-subjects experiments—that is, when each participant only sees one version of a thought experiment—participants do not show sensitivity to raised or lowered stakes but (ii) that in within-subjects experiments—for

example, when each participant sees both a low- and a high-stakes vignette—participants do show the kind of sensitivity predicted by contextualists and interest-relative invariantists. Buckwalter (this volume) notes that most experiments investigating folk epistemic intuitions have a between-subjects design but that philosophical discussions of stakes and error possibilities always have a within-subjects structure. Taking these facts as his starting point, Nat Hansen's contribution to this volume ("Contrasting Cases") argues that if we want to understand how ordinary people make epistemic judgments, we need to obtain data from both within- and between-subjects experiments. However, drawing upon research in the heuristics and biases tradition of cognitive psychology, Hansen makes the case that folk epistemic assessments will be more reflective and rational if they are made in within-subjects or "joint evaluation" contexts and that data obtained from these contexts will constitute better evidence for or against contextualism or various forms of invariantism. Arguing that some epistemic properties are difficult to evaluate in between-subjects conditions, Hansen argues for the use of more within-subjects designs.

An additional area of debate within experimental epistemology concerns the question of what the necessary conditions on the folk conception of knowledge are. Myers-Schulz and Schwitzgebel (2013) report the results of a study in which participants readily attributed knowledge in the absence of belief. While Rose and Schaffer (forthcoming) argue that Myers-Schulz and Schwitzgebel's data show only that knowledge may not entail occurrent belief, Beebe (2013) reports data that suggest knowledge may not even entail dispositional belief, at least as far as folk conceptions are concerned. In this volume, David Sackris and James Beebe ("Is Justification Necessary for Knowledge?") make a contribution to this area of debate by reporting the results of studies in which participants attributed knowledge to subjects who lacked good evidence but had true beliefs.

Despite the fact that the question of whether one can know that one will lose a fair lottery on the basis of the very long odds against winning has received considerable attention in the mainstream epistemology literature (cf., e.g., Hawthorne 2004), experimental epistemologists have not yet contributed to the discussion. In this volume, John Turri and Ori Friedman ("Winners and Losers in the Folk Epistemology of Lotteries") report the results of the

first experimental investigation of folk epistemic intuitions about lottery cases. Epistemologists have assumed that everyone agrees that you cannot know your ticket will lose on the basis of the odds alone, but there has never been any solid data to support this assumption. Turri and Friedman not only provide evidence in support of this contention, but also carefully examine and design studies to test various explanations of what underlies this judgment. They conclude that ordinary participants deny knowledge in lottery cases due to formulaic expression—that is, expressions that are characterized by stereotyped intonation and rhythm, familiarity, predictability, and unreflective automaticity.

In his contribution to this volume, Jonathan Weinberg (“The Promise of Experimental Philosophy and the Inference to Signal”) steps back from particular sets of studies and results in experimental epistemology and considers some broad questions about the kinds of data that need to be obtained in order for experimental philosophy to make substantive contributions to first-order philosophical debates. If we take our ordinary capacities to make judgments about knowledge to have a default and defeasible reliability, and we want to determine whether some factor should be incorporated into our philosophical theory of knowledge, we need various ways of distinguishing truth-tracking judgments from non-truth-tracking ones—ways to distinguish genuine signal from the accompanying noise. Weinberg cautions that tests for statistical or psychological significance will not be sufficient for this task, inasmuch as philosophical significance is distinct from either of these. He then offers some suggestions on how philosophers might establish measures of philosophically significant effect sizes, which might be modeled after the Mohs scale for ranking the hardness of minerals or the Scoville scale of gustatory heat.

Notes

1. Cf. Knobe and Nichols (2008) and Alexander (2013) for helpful overviews of the field of experimental philosophy.
2. Cf. Alexander and Weinberg (2007), Pinillos (2011), Buckwalter (2012), and Beebe (2012) for helpful overviews of research in experimental epistemology.

References

- Alexander, J. (2013), *Experimental Philosophy: An Introduction*. Cambridge: Polity Press.
- Alexander, J. and Weinberg, J. M. (2007), "Analytic epistemology and experimental philosophy". *Philosophy Compass*, 2, 56–80.
- Beebe, J. R. (2012), "Experimental epistemology", in A. Cullison (ed.), *Companion to Epistemology*. London: Continuum, pp. 248–69.
- . (2013), "A Knobe effect for belief ascriptions". *The Review of Philosophy and Psychology*, 4, 235–58.
- Beebe, J. R. and Shea, J. (2013), "Gettierized Knobe effects". *Episteme*, 10, 219–40.
- Buckwalter, W. (2010), "Knowledge isn't closed on Saturday: A study in ordinary language". *Review of Philosophy and Psychology*, 1, 395–406.
- . (2012), "Non-traditional factors in judgments about knowledge". *Philosophy Compass*, 7, 278–89. still forthcoming
- Buckwalter, W. and Schaffer, J. (forthcoming), "Knowledge, stakes, and mistakes". *Noûs*. AQ: Please update the reference 'Buckwalter and Schaffer' (forthcoming)
- Cullen, S. (2010), "Survey-driven romanticism". *Review of Philosophy and Psychology*, 1, 275–96.
- DeRose, K. (2011), *The Case for Contextualism: Knowledge, Skepticism, and Context, Vol. 1*. New York: Oxford University Press.
- Fantl, J. and McGrath, M. (2009), *Knowledge in an Uncertain World*. New York: Oxford University Press.
- Feltz, A. and Zarpentine, C. (2010), "Do you know more when it matters less?" *Philosophical Psychology*, 23, 683–706.
- Hawthorne, J. (2004), *Knowledge and Lotteries*. New York: Oxford University Press.
- Knobe, J. (2003a), "Intentional action and side-effects in ordinary language". *Analysis*, 63, 190–3.
- . (2003b), "Intentional action in folk psychology: An experimental investigation". *Philosophical Psychology*, 16, 309–24.
- Knobe, J. and Nichols, S. (eds). (2008), *Experimental Philosophy*. New York: Oxford.
- May, J., Sinnott-Armstrong, W., Hull, J. G. and Zimmerman, A. (2010), "Practical interests, relevant alternatives, and knowledge attributions: An empirical study". *Review of Philosophy and Psychology*, 1, 265–73.
- Myers-Schulz, B. and Schwitzgebel, E. (2013), "Knowing that p without believing that p". *Noûs*, 47, 371–84.
- Nagel, J., San Juan, V. and Mar, R. A. (2013), "Lay denial of knowledge for justified true beliefs". *Cognition*, 129, 652–61.

Nichols, S., Stich, S. and Weinberg, J. M. (2003), "Metaskepticism: Meditations in ethno-epistemology", in S. Luper (ed.), *The Sceptics*. Burlington, VT: Ashgate, pp. 227–47.

still forthcoming

AQ: Please update the reference 'Phelan' (forthcoming)

Phelan, M. (forthcoming), "Evidence that stakes don't matter for evidence". *Philosophical Psychology*.

Pinillos, N. Á. (2011), "Some recent work in experimental epistemology". *Philosophy Compass*, 6, 675–88.

—. (2012), "Knowledge, experiments and practical interests", in J. Brown and M. Gerken (eds), *Knowledge Ascriptions*. New York: Oxford University Press,

still forthcoming -219.

AQ: Please update the reference 'Rose and Schaffer' (forthcoming)

Rose, D. and Schaffer, J. (forthcoming), "Knowledge entails dispositional belief". *Philosophical Studies*.

Stanley, J. (2005), *Knowledge and Practical Interests*. New York: Oxford University Press.

Starmans, C. and Friedman, O. (2012), "The folk conception of knowledge". *Cognition*, 124, 272–83.

Weinberg, J. M., Nichols, S. and Stich, S. (2001), "Normativity and epistemic intuitions". *Philosophical Topics*, 29, 429–60.