Can We Know God?

New Insights from Religious Epistemology

September 2019

Nevin Climenhaga, Ph.D.

Australian Catholic University

JOHN TEMPLETON
FOUNDATION

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I. INTRODUCTION

Since the resurgence of analytic philosophy of religion in the late twentieth century, epistemological questions have been central to the discipline. Are religious beliefs rational? Do we need arguments to know that God exists? Are the evils we observe in the world evidence against theism? The two leading theistic philosophers in these debates were Alvin Plantinga and Richard Swinburne. Plantinga argued that belief in God, and religious belief more generally, could be "properly basic"—not based on further arguments or evidence.[1] This position came to be known as "reformed epistemology." Swinburne, on the other hand, defended several evidential arguments for the existence of God and the truth of Christianity, using the tools of probability theory to measure their cumulative force.[2] Plantinga's project was integrated with the broader defense of a proper functionalist theory of knowledge, on which what we know depends on how we were designed to go about forming beliefs. Swinburne's project was integrated with a broader exploration of the role that probability theory plays in empirical inquiry.

The extent of disagreement between Plantinga and Swinburne can be exaggerated.[3] But, broadly speaking, the two philosophers represent two largely distinct research programs among theistic epistemologists of religion: one advancing evidential arguments for religious claims and critiquing evidential arguments against religious claims, and the other defending religious belief without appealing to such arguments. These two research programs are broadly representative of two larger positions in epistemology: internalism, according to which the rationality of beliefs is only determined by factors internally accessible to the believer (such as whether one has evidence for the belief), and externalists, according to which the rationality of beliefs can be partly determined by other factors (such as whether one's belief is causally connected with the facts).

While debates between these two camps (both in religious epistemology in particular and in epistemology more generally) have not been resolved, they have in recent years largely given way to work on other problems. These include the extent to which practical considerations influence what we know, the proper response to testimony and disagreement, the epistemological implications of empirical cognitive science, and the relation of knowledge and action. For example, does research on the evolutionary origins of religion, or the existence of religious disagreement, threaten the rationality of religious belief and practice?

This report reviews research supported by two recent Templeton research grants focused on religious epistemology. New Insights and Directions for Religious Epistemology, led by John

[1] See especially Plantinga 1983 and 2000. In 2017, Plantinga was awarded the Templeton Prize for his work in religious epistemology (http://www.templetonprize.org/previouswinners/plantinga.html).

[2] See especially Swinburne 1979.

[3] See, for example, Walls and Dougherty (ed.) 2018, which explores several natural theological arguments suggested by Plantinga, and Swinburne 2018, which explores the conditions under which religious experience can justify theistic belief, even in the absence of the believer explicitly formulating arguments.

Hawthorne, explores the implications of recent work in epistemology on questions in the epistemology of religion. Knowing in Religion and Morality, led by Michael Bergmann and Patrick Kain, focuses on skeptical challenges to moral and religious beliefs based on the presence of disagreement about moral and religious questions and the evolutionary origins of moral and religious beliefs.

The central output of each grant was an edited volume: for the first, *Knowledge, Belief, and God: New Insights in Religious Epistemology* (2018), edited by Matthew Benton, John Hawthorne, and Dani Rabinowitz; for the second, *Challenges to Moral and Religious Belief: Disagreement and Evolution* (2014), edited by Michael Bergmann and Patrick Kain. I shall refer to the former as *KBG* and the latter as *CMRB*. The Knowing grant also resulted in several journal articles, and the New Insights grant in several books and over 50 journal articles.

The publications supported by the grants are not all "on topic:" many outputs from the New Insights grant in particular only discuss more general epistemological issues. Some of these, such as Ballantyne 2014, Tucker 2014, Hedden 2015a and 2015b, Anderson 2015, and Benton 2016, have been quite influential. (These publications have all been cited more than 20 times.)[4] I restrict my discussion here to publications in religious epistemology (with occasional discussion of the moral epistemology outputs of the Knowing grant that connect with religious epistemology), focusing on those publications which have been particularly impactful or which I found especially insightful.

While, as I note above, religious epistemologists have largely turned their focus away from the debate between evidentialists and reformed epistemologists, I was struck in reviewing the publications resulting from these two grants how much the split between these two approaches continues to shape the work done in the field. I note below some places in which this influence is especially apparent, and then at the end of this report, in discussing future directions for religious epistemology, I come back to the implications of this division.

The remainder of this report is structured as follows. In Section 2, I summarize some major research topics in recent epistemology—knowledge-first epistemology, contextualism and interest-relativism, social epistemology, formal epistemology, and empirically informed epistemology—and discuss how the grant publications have applied them to religious epistemology. In Section 3, I highlight thirteen articles that strike me as especially significant, grouped under six major topics they cover: testimony and disagreement, the problem of evil, evolutionary debunking arguments, the fine-tuning argument, Pascal's wager, and religious practice. In Section 4, I reflect on some trends revealed in the previous discussion and suggest some future directions for religious epistemology.

[4] All my citation data in this review is taken from Google Scholar in May 2019.

II. NEW TRENDS IN EPISTEMOLOGY

The central question of late twentieth century epistemology was: What is knowledge? This discussion was framed by Edmund Gettier's 1963 paper, "Is Justified True Belief Knowledge?" which argued that there are some cases in which a person is highly justified in believing a proposition, that proposition is true, and yet the person does not know it to be true. One of his cases (slightly revised) goes like this. Smith, a job applicant, has very strong evidence that he will get the job, and very strong evidence that he has ten coins in his pocket (he counted them a moment ago). He infers from this that the man who will get the job has ten coins in his pocket. Moreover, this proposition is true, because another job applicant, Jones, is going to get the job, and happens to also have ten coins in his pocket. In this case, Smith has a justified true belief that the man who will get the job has ten coins in his pocket. And yet, he clearly does not *know* that the man who will get the job has ten coins in his pocket. This shows that justified true belief is not sufficient for knowledge.

After Gettier, epistemologists proposed a number of different theories of knowledge, most aimed at giving necessary and sufficient conditions for the circumstances under which a person knows a proposition to be true. Some added additional conditions to justification, truth, and belief, while others presented completely different accounts of knowledge. No theory gained widespread acceptance. Eventually the project of analyzing knowledge fell out of fashion—not because it had been resolved, but because it seemed irresolvable.

In more recent epistemology (starting, roughly, in the 1990s), the topics of conversation have been more diverse. In the remainder of this section I describe five broad trends in recent epistemology.

Knowledge-First Epistemology

While philosophers have largely stopped trying to give an *analysis* of knowledge—that is, a set of necessary and sufficient conditions for when someone knows a proposition—a number of research projects have nevertheless advocated some new ways of thinking about knowledge. The first of these research projects, pioneered by Timothy Williamson (2000), responds to the failure of the post-Gettier research program by arguing that knowledge is a primitive mental state, and thus unanalyzable. Instead of seeking to analyze knowledge in terms of justification, belief, and so on, *knowledge-firsters* argue that we should understand these other concepts partly in terms of knowledge.

Knowledge-first epistemology has a number of interesting implications for religious epistemology. One of Williamson's most discussed theses is that our mental states—such as knowledge, belief, and hope—are not always accessible to us. We are not always in a position to know what we know, or believe, or hope. Rabinowitz (2018) notes that this implies that we are not always in a position to know when we've sincerely repented for past sins. She argues that in orthodox Judaism, on which divine forgiveness requires sincere repentance, this makes it hard for us to know that God has truly forgiven us and so experience the cathartic value of repentance that is central to the repentance process.

Perhaps the most important knowledge-first claim for religious epistemology is that "E = K"—that is, our evidence (E) consists of what we know (K). What we know is thus the standard relative to which we can judge the plausibility of our other beliefs. Williamson thinks that we can know things which go beyond our internal experience, and as noted above, he thinks we are fallible even about the contents of that experience. Thus, it is not always internally accessible to us what our evidence is. We cannot always know what it is that we know. In this sense Williamson is an externalist. However, his epistemology is in some ways a middle ground between traditional forms of internalism and externalism in religious epistemology. For once our evidence is fixed, how confident we ought to be in any proposition is plausibly determined by the probability of that proposition given our evidence (Williamson 2000: ch. 10). If the relevant probabilities here are knowable *a priori*—if we are able to discern them by reflection—then Williamson's epistemology is (like Plantinga's) externalist when it comes to what our evidence is, but (like Swinburne's) internalist when it comes to how that evidence bears on our beliefs.

As multiple grant authors observe, Williamson's externalist conception of evidence has strong implications for evaluating the rationality of religious beliefs. Broadly speaking, it implies that it is easier for "dogmatic" religious or irreligious beliefs to be justified. Suppose, for example, that I can come to know that Jesus was resurrected by believing the resurrection reports in the New Testament (Anderson 2018: 26). That Jesus was resurrected is now part of my evidence, and the probability that Jesus was resurrected, given my evidence, is accordingly 100%—and this can be so even if the probability that Jesus was resurrected on my *other* evidence is low. If my confidence in a proposition should be proportional to its probability on my evidence, then I can come to be maximally confident that Jesus was resurrected, even if prior to coming to know that Jesus was resurrected this proposition was antecedently quite improbable for me. Moreover, I can apparently rationally dismiss what would (if I did not know that Jesus was resurrected) be evidence against this belief, such as disagreement on the part of my Muslim peers (Baker-Hytch 2018: 196).

The above example supposes that I can come to know that Jesus was resurrected. But suppose that Jesus was not resurrected, and moreover, that no other miracles have occurred either. Then, since (as all philosophers agree) knowledge requires truth, I cannot come to know that Jesus was resurrected. On the other hand, if a skeptic is able to know that miracles do not occur, then that miracles do not occur can be part of that skeptic's evidence, and she can become rationally certain that miracles do not occur, dismissing reports of the resurrection out of hand (cf. Benton, Hawthorne, and Isaacs 2016; Benton and Hawthorne 2018). In this way an externalist conception of evidence can rationalize dogmatism on the part of either the religious believer or the skeptic, depending on the facts of the matter.

Contextualism and Interest-Relativism

A second research project diverges from the post-Gettier project of analyzing knowledge in a different way. Traditional analyses of knowledge take it for granted that when we say something like, "Smith knows that he has ten coins in his pocket," the meaning of "knows" in this sentence does not depend on the context. The contextualist denies this, holding that what kind of state is picked out by "knows" depends on the context in which the word is used (DeRose 1999). Contextualists will

typically hold that in contexts in which skeptical hypotheses are being discussed, or speakers think that getting it right is very important, "knows" will pick out a harder-to-reach state—for example, it will pick out a state that requires absolute certainty, rather than mere high probability.

Even if we grant that "knows" means the same thing in all contexts, there is a question of whether knowledge is dependent purely on "epistemic" factors—like the evidence one has—or is also dependent on "practical" factors—like the risks associated with being wrong. Traditional analyses of knowledge assumed that practical factors did not impact whether one knows. Interest-relativists, by contrast, argue that one's practical interests can affect one's knowledge: it is harder to know, they claim, when the costs of one's being wrong would be very high.

Eaton and Pickavance (2017) and Benton (2018) explore the implications of interest-relativism for religious epistemology. The core idea they defend is that interest-relativism creates an *asymmetry* between theistic and atheistic belief. For, as Pascal famously observed, given a traditional Christian view of the afterlife, if you believe theism, you gain everything (paradise) if you are right, and lose little (earthly pleasures) if you are wrong; while if you believe atheism, you lose everything (damnation) if you are wrong, and gain little (earthly pleasures) if you are right. Most forms of interest-relativism say that how hard it is to know a proposition is proportional to how strongly one's practical interests favor believing it. This makes it very hard—perhaps impossible—to know that atheism is true, even if it is, while much easier to know that theism is true, if it is. If, moreover, belief aims at knowledge, then this knowledge-asymmetry may give us a non-evidential epistemic reason to believe theism, but disbelieve atheism (Benton 2018: 280-84).

Social Epistemology

Recent epistemology has seen a flourishing of interest in the social aspects of knowledge and belief—including especially the ways in which our beliefs about the world depend on the testimony of others, and the challenges to our beliefs that arise from others' disagreement. A large number of grant authors discuss issues related to testimony and disagreement, the latter being one of the main focuses of the Knowing grant. I summarize some of these particular articles in Section 3 below; here I note broad themes.

On testimony, one of the main issues is the conditions under which we can gain knowledge through testimony, or rationally believe what others say. Many religious believers today base their beliefs on the testimony of those they take to be "experts," such as their pastors or parents, an issue Lackey (2018) and Fricker (2014) discuss. Testimony is particularly important within Christianity, because many of the central claims of Christianity, such as the resurrection, are historical claims that subsequent generations of Christians believe on the basis of the testimony of those who claim to have observed them. The eighteenth-century philosopher David Hume was famously critical of basing religious faith on such testimony, arguing that it is never rational to believe a miracle claim, because it is always more likely that the testifier is lying or mistaken than that the laws of nature have been violated. Anderson (2018) critically discusses Hume's argument, examining under what conditions the reasons Hume gives to think that testimony to miracles tends to be unreliable is a "defeater" for belief in a miracle report.

The issue of testimony is also particularly important for the intersection of religion and morality, a theme explored by several contributors to *CMRB*. Theists who believe that God has in some way specially revealed himself typically take moral claims to be a central part of God's revelation. These claims can be at odds with the "wisdom of the world" (the apostle Paul's words in 1 Corinthians 1:20, quoted in Pittard 2014), leading to disagreements between religious and secular moralities over, for example, whether all human life is sacred, or whether only humans with the capacity for rationality have moral worth (Jackson 2014). One pressing issue for theists who base their moral beliefs on revelation is then the circumstances under which they should trust a purported divine revelation—an issue Hare (2014) takes up in his contribution to the volume.

One threat to religious beliefs based on testimony is the existence of religious disagreement. Just as Christians believe that God has revealed himself through the incarnation, for example, Muslims believe that God has revealed himself through the Qu'ran. Baker-Hytch (2018) critically examines various arguments from religious disagreement against testimony-based religious belief.

More generally, the existence of disagreement about religious claims—held on whatever basis—threatens the rationality of those beliefs. Recent work in epistemology explores under what circumstances disagreement from an "epistemic peer" should lead one to become less confident in one's own position. This issue is explored by Audi (2014), Pittard (2014), Goldberg (2014), Lackey (2014), and Bergmann (2015).

An important point highlighted in several of these discussions is that the extent of disagreement between, for example, theists and atheists will tend to make it harder to identify *dispute-independent reasons* that one could give to either party as to why they should take their disputant to be reliable. For example, theists and atheists may disagree not only about first-order moral claims, like the permissibility of abortion or of same-sex relationships, but also disagree about what the most reliable sources for learning about morality are, with atheists placing greater weight on intuition and reason and theists placing greater weight on tradition and revelation. In turn, disagreement about the reliability of, say, revelation may turn on disagreement about methods for evaluating testimony, such as whether it can ever be rational to accept the testimony of someone who purports to have witnessed a miracle.

Pittard (2014) and Bergmann (2015) argue that the wide-ranging nature of such disagreement not only makes it harder to resolve as a practical matter, but also makes it harder to formulate a plausible principle on which (for example) theists should revise their beliefs in response to this disagreement (but see Lackey 2014 for a contrary view). "Conciliationist" views of disagreement hold that in a wide range of disagreements, one should revise one's views in the direction of one's interlocutors. Pittard, whose chapter I explicate more fully below, argues that the only plausible form of conciliationism is one on which one should only "conciliate" with those whom one has dispute-independent reasons to think are reliable. For the theist and atheist who disagree on so many fundamental questions, it will be hard to identify dispute-independent reasons for theists to think their atheist interlocutors reliable; a plausible form of conciliationism will thus not enjoin them to respond to the disagreement of atheists by becoming less confident in their theism.

Formal Epistemology

While late twentieth-century epistemology focused on the nature of knowledge, epistemology in more recent years has focused also on the nature of, and norms governing, rational belief. This includes, as above, the conditions under which we can rationally believe others' testimony, or how we ought to react to peer disagreement or the raising of practical stakes. For example, high stakes may preclude knowledge, but not rational belief. Or they may preclude both. But the two issues are in principle separable.

One area where this shift toward the study of rational belief is especially clear is in the application of formal methods to epistemology. The application of probability theory to scientific reasoning was a major theme in twentieth-century philosophy of science (see, for example, Swinburne 1973 and Howson and Urbach 1989). Toward the end of the twentieth century, the application of probability to reasoning more generally became a major topic of epistemology proper. Epistemologists began to recognize more explicitly that much of our reasoning about the world is uncertain, and that mathematical probability is a useful way to quantify that uncertainty.

The relation of probability to rational belief is not straightforward. One natural idea is that we believe only those propositions which we take to be sufficiently probable (or are sufficiently confident in) and that we *should* believe only those propositions which really are sufficiently probable given our evidence. Swinburne (2018) and Wedgwood (2014) endorse the first of these theses, taking the threshold of belief to be probability or degree of confidence 1/2 (since this is the point at which one is more confident in a proposition than in its negation). The second thesis was suggested in my exposition of knowledge-first epistemology above, on which our evidence is what we know, and the rationality of our beliefs is determined by the probability of those beliefs on our evidence.

Some interest-relativists, however, will hold that there is no constant threshold for "sufficiently probable"—it is not as if I should believe all and only those propositions with probability above .5, or .9, or some other threshold. Instead, what counts as "sufficiently probable" depends on the stakes. We have already seen in the discussion of Eaton and Pickavance (2017) and Benton (2018) above how this can affect the rationality of religious belief. Buchak (2014) explores how different views on the relationship between probability and belief will lead to different views on the relationship between *belief* and *faith*. She suggests that on interest-relativism, rational belief and rational faith will be closely related, for what it is to have faith in some proposition is to be committed to acting on that proposition and not searching for further evidence for or against it (see Buchak 2012).

Historically, the application of probability theory to the philosophy of religion was pioneered by Swinburne in his exposition of natural theological arguments for Christian theism. In the outputs of the New Insights grant, probability theory takes center stage in discussions of the fine-tuning argument for God's existence (Choi 2018, Halvorson 2018, Hawthorne and Isaacs 2018, Hawthorne and Isaacs 2017). The fine-tuning argument begins from the finding of modern physics that it is quite difficult for the universe's laws to allow for life, in the sense that the various parameters that feature in fundamental physical theories—things like the mass of the neutron, the strength of gravity, and the degree of entropy in the original conditions of the universe—need to be "fine-tuned" in order for the universe to allow for life, or indeed any kind of complex matter. In spite of this fact, our universe

does, in fact, allow for life. The fine-tuning argument takes this to be evidence for theism over naturalism, for if naturalism is true, the physical facts above make the existence of life extraordinarily unlikely, while if theism is true, the existence of life is comparatively unsurprising.

There are many advantages to modeling the fine-tuning argument probabilistically. Perhaps foremost among them is that, if we can agree on the probabilistic premises, such as how probable the evidence is given theism and given atheism, then we can get probabilistic conclusions from the mathematics alone. For example, if we can agree that the probability of theism apart from the fine-tuning evidence—its "prior probability"—is not too low, and we can agree that the fine-tuning evidence is much more likely given theism than given atheism, then it will follow that the probability of theism given the fine-tuning evidence—its "posterior probability"—will be high (with the exact posterior probability depending on the exact values of the probabilities in the premises). One can then sidestep questions about whether fine-tuning "cries out for explanation" (Hawthorne and Isaacs 2018: 141-43), along with accusations of "God-of-the-gaps" reasoning and other objections that do not actually challenge any of the argument's probabilistic premises (Hawthorne and Isaacs 2017: 139-42).

However, partly due to underlying disagreements about the metaphysics and epistemology of probability, agreement that the fine-tuning argument should be modeled probabilistically does not necessarily lead to agreement on what the correct probabilistic formulation of the argument is, much less on whether the argument is successful. I discuss this issue further in Section 4.2, after summarizing Hawthorne and Isaacs 2017 and 2018 in more depth in Section 3.

Cognitive Science and Epistemology

A final trend in recent epistemology is increased attention to the empirical study of people's belief-forming practices. Interest in the way in which "the folk" react to philosophical thought experiments and form philosophical intuitions has led to the new sub-field of experimental philosophy (Knobe and Nichols 2017). In the epistemology of religion, the most salient empirical research comes from cognitive science and evolutionary psychology, which study the ways in which religions are formed and their evolutionary and cultural origins.

Sosis and Kiper (2014) and Thurow (2014) summarize different research programs in the empirical study of religion. One research program explores how our cognitive templates, such as a tendency to ascribe agency to objects, makes it easy for us to form religious beliefs. Another research program begins with the evolutionary assumption that nature selects for behaviors that lead to reproductive success. This program also explores how religious behaviors can enhance fitness through, for example, promoting group cooperation. Sosis and Kiper argue that both these approaches have merit, but neither is complete: the first focuses solely on belief, and the second solely on behavior, while in fact religions are complex systems that integrate both belief and behavior.

Some skeptics have argued that the empirical findings of these research programs show religious commitments to be irrational. Thurow and Sosis and Kiper both challenge this claim. A common theme of their critiques is that skeptics tend to distort and oversimplify the empirical science that is supposed to debunk religious commitment. Religion is a complex and varied phenomenon, and the explanation of why people are religious will not be the same for different religious groups, or for all

members of the same religious group. In Section 3 below I discuss FitzPatrick's (2014) similar critique of attempts to use evolutionary theory to debunk moral belief.

A notable feature of Sosis and Kiper's critique is that it shifts the conversation away from solely focusing on religious belief. Sosis and Kiper argue that being religious involves much more than belief—it involves ritual behavior, moral commitments, social connections, and so on. While it is necessary for group cohesion that some members of the group believe the religion's propositional claims, for most members, it is enough that they "accept" them—committing themselves publicly to living in accordance with them. Hence, showing that, for example, religious beliefs originally arose from a "hyper-sensitive agency detection device" does not show contemporary religious commitment to be irrational.

Against Sosis and Kiper, de Cruz (2018) argues that evolutionary accounts of religion can challenge the rationality of religious practices as well. Her argument starts from the assumption that some religious practices aim at engaging God. Evolutionary explanations of the origins of those practices threaten to show that they fail in this aim; religious adherents who are aware of these explanations thus have reasons to doubt that their ritualistic practices are successful. In this way the cognitive science of religion may threaten the rationality of not only religious belief but also religious practices.

This discussion illustrates that questions about the rationality of religion are not reducible to questions about the evidential status of religious propositions, even if the latter are relevant to the former. Examining non-propositional aspects of religion need not even take us beyond epistemology, broadly construed. Sliwa (2014), for example, draws on recent epistemological interest in "knowledge-how" to argue that religious faith requires knowing how to perform certain actions. And Callahan and O'Connor (2014a: 13-14) discuss the connection between religious faith and intellectual virtue, which includes one's belief-forming propensities, worldview, moral orientation, and affective stance. Another recent trend in contemporary epistemology, "virtue epistemology," has focused on these broader inputs to belief generally. Several chapters in Callahan and O'Connor 2014b explore religious epistemology from a virtue-theoretic framework.

III. NOTABLE PUBLICATIONS

In this section I provide summaries of thirteen publications resulting from the grants that I found particularly interesting, or that have been particularly influential, or both. I begin with essays that address skeptical challenges to religious belief arising from testimony and disagreement, evil, and evolution; and then move to essays that present positive arguments for religious belief from fine-tuning and the pragmatics of religious belief; before concluding with essays that move beyond religious belief to religious practice.

Religious Testimony

Testimony is one of the main sources of people's religious beliefs. These articles consider the ways in which other people's testimony might contribute to or undermine religious knowledge or rational religious belief.

Rachel Fraser (2018), "Testimonial Pessimism"

Pessimism about the epistemic status of religious testimony is not new. As noted above, Hume argued that it is never rational to believe that a miracle has occurred on the basis of testimony, because there is always a better naturalistic explanation of this report than an actual miracle. Fraser presents some interesting novel arguments for testimonial pessimism. These arguments do not target the possibility of having *justification* (internalist or externalist) for believing a proposition on the basis of testimony, but rather the possibility of even *understanding* a proposition on the basis of testimony.

For example, philosophers distinguish *de re* and *de dicto* propositions. Suppose that today I think to myself, "the mayor is a spy." Tomorrow I see a man in a trench coat in a dark alley and think, "that man is a spy." Unbeknownst to me, that man is the mayor. In this case I believe two different propositions. The former is a *de dicto* proposition, where I indirectly refer to the man in question using the description "the mayor." The latter is a *de re* proposition, where I directly refer to the man in question through the demonstrative "that man."

Plausibly, having a *de re* belief about O requires some kind of direct acquaintance with O (for example, seeing O). But now suppose that merely hearing someone else refer to O is not enough for one to be acquainted with O. In this case, one cannot believe the same proposition the speaker has asserted. This implies that only those who have experienced God directly—mystics, for example—will be able to have *de re* beliefs about God. If a mystic believes "God is loving" and tells this to (in the words of one medieval mystic) the "unwise people still dwelling in their senses" (207), then these people will be literally unable to understand what the mystic is saying.

Max Baker-Hytch (2018), "Testimony amidst Diversity"

Consider Jane, a typical Christian who forms her Christian beliefs by believing what her parents and religious teachers tell her. This chapter explores various ways in which the diversity of religious belief might make Jane's beliefs irrational, or keep them from amounting to knowledge.

One might argue that Jane's belief is *unreliable*, whether or not she is aware of religious diversity. For example, the fact that people of all religions tend to believe what their parents tell them suggests that their beliefs are not *sensitive*—they would have held them even if they had been false. Baker-Hytch argues that whether this is so depends on whether the belief in question is in fact true. Whether Jane's belief in the resurrection is sensitive depends on the mechanism that led to this doctrine being transmitted through history, and whether God was causally involved in this mechanism. If God started the testimonial chain by revealing himself to the first Christians, then Jane's belief in the resurrection is sensitive—had it not occurred she would not believe it.

One might also argue that once Jane becomes *aware* of religious diversity, her beliefs are *defeated*. Religious diversity could either be a *rebutting* defeater, providing reason for Jane to think that her beliefs are false, or an *undercutting* defeater, providing reason to think that her beliefs are not reliably connected to the truth.

Baker-Hytch argues that religious diversity might provide a rebutting defeater for those who believe both that (i) there exists a perfectly loving God and that (ii) God will punish in the afterlife those who fail to have comprehensive true religious beliefs. For religious diversity seems surprising given (i) and (ii). But for religious believers who deny one of these, religious diversity is not surprising.

One might think the fact that "internally similar" belief-forming methods lead to incompatible beliefs (such as the theological beliefs of Muslims and Hindus) provides an undercutting defeater for Jane, because it implies that at least some of those belief-forming methods are unreliable. But, Baker-Hytch contends, this line of thought leads to external world skepticism: a brain in a vat being fed illusory experiences by a computer forms beliefs in a way internally similar to our own, but its belief-forming methods are unreliable. If the fact that belief-forming methods internally similar to our own are unreliable defeats those beliefs, we must conclude that our beliefs about the external world are unjustified. To avoid such a skeptical conclusion, we should adopt "an externalist notion of evidence" (196), on which our evidence can include things we know on the basis of perception and testimony (like the resurrection).

Several of Baker-Hytch's argumentative moves are squarely in the Plantingian tradition.[5] For example, like Baker-Hytch, Plantinga (2000) objected to several epistemic positions that would result in an overly broad skepticism—one which undermined not only religious belief but also belief in the external world. In addition, Baker-Hytch follows Plantinga in arguing that Jane's beliefs only have various undesirable qualities if Christianity is not true. Plantinga (2000) influentially distinguished between *de jure* and *de facto* objections to Christian belief. *De facto* objections argue that Christianity is false, while *de jure* objections argue that whether or not it is false, we don't know that it is true (or we are irrational in believing it, etc.). Plantinga argued that there are no good *de jure* objections—that *if* Christian belief is true, then it is rational and can be known. Baker-Hytch pursues a similar strategy, separating the question of the truth of Christianity from its reasonability, conditional on its truth.

[5] In his review of *KBG*, Moon (2019: 132-34) also explores the relationship between Baker-Hytch's article and Plantinga's religious epistemology.

John Pittard (2014), "Conciliationism and Religious Disagreement"

While Baker-Hytch's chapter explored the possibility that disagreement makes testimonial-based religious belief irrational, Pittard explores the possibility that known disagreement makes religious belief more generally irrational. Whether this possibility is actual depends on under what circumstances the fact that someone disagrees with me should make me (much) less confident in my belief. If I do not become less confident in my belief, I must have reasons for doubting my disputant's reliability. Pittard identifies two kinds of reasons: *dispute-independent* reasons, which are independent of my perspective on the disputed issue, and *dispute-dependent* reasons, which presuppose my perspective on the disputed issue. "Strong conciliationists" say that you should not rely at all on partisan, dispute-dependent reasons in responding to disagreement. Pittard argues that strong conciliationism is implausible. (Bergmann (2015: 27-34) presents a similar argument.) Suppose someone gives me several apparently fallacious arguments that the astrology book he is reading, *Stars Tell All*, is reliable. He tells me that according to *Stars Tell All*, only Capricorns are reliable at identifying fallacious reasoning. I am not a Capricorn and he is. It seems that I can here dismiss my interlocutor as unreliable because I can see that his arguments are fallacious. But my reason for dismissing my interlocutor is dispute dependent: in relying on my ability to identify fallacious reasoning, I am presupposing that *Stars Tell All* is unreliable. Strong conciliationism would thus preclude me from dismissing my interlocutor in this way.

The situation is different, Pittard thinks, if we not only *lack* dispute-independent reasons to distrust our disputants, but also *have* dispute-independent reasons to trust them. According to a more plausible *moderate* conciliationism, in such a situation we should become less confident in our belief. However, moderate conciliationism will not necessarily tell religious believers to conciliate with atheists. For many theists will accept "non-standard" views of epistemic qualifications that will mean they lack dispute-independent reasons to trust atheists. For example, the apostle Paul tells us that it is "part of God's wise plan that human 'wisdom' is not the means by which we may come to know God;" instead, God especially reveals himself to those "foolish" in the eyes of the world: "those without notable education, or status" (88). For Paul, epistemic credentials come from revelation by the Holy Spirit. Inasmuch as non-Christians lack these credentials, there will not be many non-Christians who Christians should regard as reliable in reasoning about the truth of Christianity.

All this does not mean that religious belief in general, or Christian belief in particular, is rational. It might be "that these religious views on epistemic credentials are simply implausible." But "arguing for this conclusion would likely require going beyond mere epistemological considerations in order to engage the theological and religious reasons that lead religious believers to accept non-standard theories of epistemic qualifications in the first place" (94). The existence of disagreement, in other words, is not enough.

The Problem of Evil

One of the most common arguments for atheism is that the horrendous evils we observe are incompatible with, or evidence against, the existence of God. These two articles seek to advance the literature on the problem of evil in different ways—the second, by reexamining some traditional

assumptions about what it means for God to be morally perfect, and the first, by critiquing common responses to the problem of evil with the tools of contemporary epistemology.

Matthew Benton, John Hawthorne, and Yoaav Isaacs (2016), "Evil and Evidence"

This essay by Benton, Hawthorne, and Isaacs (hereafter BHI) perhaps best exemplifies the goals of the New Insights project. It examines the large literature in the philosophy of religion on the problem of evil, and the concepts, principles, and tools that have been developed in that literature. BHI argue that many of these concepts, principles, and tools are misguided or unhelpful; and that applying some insights from epistemology, in particular probabilistic epistemology, allows us to clarify the debate significantly.

BHI's attacks are impressively wide-ranging, and I content myself here to summarize two of their arguments. The first targets *skeptical theism*, a popular recent response to the problem of evil. Skeptical theists claim that we are not in a good position to judge what kinds of reasons God would have for allowing or preventing evils, and consequently that the evils we observe do not give us strong reason to doubt the existence of God. As BHI observe, some skeptical theists are quite strident in their skepticism, holding that the existence of evil gives us *no* evidence against the existence of God. BHI argue that this is implausible by considering the "problem of paradise." Suppose that the world contained all pleasures and no pains. This would be a problem for atheism. Such a world would be less likely given that atheism is true than given that theism is true, and would accordingly be evidence against atheism. But if we grant this, it follows from the mathematics of probability that the fact that the world is *not* like this—that the world does contain pain—is more likely given atheism than given theism. This fact is accordingly evidence against theism. (But see Callahan 2016 for a response to this argument.)

BHI consider one response that some strident skeptical theists make to the claim that evil is more likely given theism than atheism, which is to argue that the probabilities at play here are completely inscrutable to us, so that we can say nothing about their values. BHI argue that this probabilistic skepticism is untenable on either a "subjective" interpretation of probability—on which an agent's probabilities are her subjective degrees of confidence—or on an "objective" interpretation—on which probabilities determine the degrees of confidence an agent ought to have. On the former interpretation, skeptical theists are just reporting their inability to tell what their own mental states are, which is not that interesting. On the latter interpretation, then it doesn't matter whether we're ignorant of probabilities—they still determine what we ought to believe. (Strident) skeptical theists seem to want to combine these two interpretations, so that probabilities are objective but if you're totally ignorant about the objective evidential significance of P, then P should not affect your degrees of confidence. But they give no argument for this combination, and absent independent motivation it seems like special pleading to avoid facing up to the problem of evil.

BHI also apply some intuitions about evidential support to make a positive case that, while evil may be some evidence against theism, it is not insuperably strong evidence. Suppose that (with some internalists, and against Williamson) we take our evidence to consist of our current phenomenal states. In this case, "if you're not currently suffering tremendous pain then you can't be certain that any such tremendous pain exists" (23). We can thus be *really* skeptical theists, holding that while we

seem to recall hearing reports of (for example) fawns suffering in forest fires, in fact there are no fawns suffering in forest fires—perhaps God protects fawns from pain while they are on fire, or perhaps there are really no fawns at all, despite our misleading evidence for their existence. Really skeptical theism seems silly: even if we assume that God exists, it is obvious that terrible suffering exists. But if this is so, then since it is *compatible* with our phenomenal evidence that terrible suffering does not exist, it is not *completely* obvious that such suffering is pointless. As BHI put it, "it is much less strange to think that God has reasons to allow for horrendous evils than to think that God has reasons to allow for the misleading impression that there are horrendous evils... Skeptical theism is significantly more credible than really skeptical theism. That may not be much, but it is something" (23).

Mark Murphy (2014), "Toward God's Own Ethics"

As BHI observe in the introduction to their article, philosophical examination of the problem of evil requires both clarifying our epistemology and clarifying the nature of God and evil. Their article focuses on the former, while Murphy's focuses on the latter. Murphy begins with a conception of God as "the absolutely perfect being" (155). He argues that we do not have good reason to think that the perfect being would be motivated to prevent the kinds of evils we observe. While the perfect being might be morally good in some sense, this sense may not be that of "familiar welfare-oriented moral goodness" (159).

The perfect being, Murphy argues, would be perfectly rational. Perfect rationality, however, does not necessarily imply welfare-oriented moral goodness. Suppose that I have reasons to respond positively to things that are good for me (desiring them, seeking them out, etc.). If other humans also have reason to respond positively to what is good for me, it is because of features of human psychology, human nature, or because of their place (together with me) in the rational community of agents. None of these explanations extends to God, and so we do not have an argument that God will similarly have reason to respond positively to our well-being. And even if God does have reasons to respond positively to our well-being, these may be reasons only to *respect* our well-being (and so not intentionally undermine it), not *promote* it. Moreover, even if God has reasons to promote our well-being, these may only be *justifying* reasons, and not *requiring* reasons. It is tempting to reply that, even if the logic of reasons does not require this, it is just intuitively obvious that God has decisive reason to promote anything which has intrinsic value. But we should be wary of trusting our intuitions here, because our intuitions about moral matters are more reliable when applied to situations similar to the ones we ordinarily encounter than when applied to situations radically removed from our everyday experience: "When we form the thought 'of course everyone has reason to do *that*' 'everyone' typically ranges over our fellow humans" (165).

Murphy concludes with a concession, namely, that even if divine perfection is compatible with allowing the evils we observe, these evils may still pose a challenge to the rationality of our giving *allegiance* to God: it remains a difficult question whether we can reasonably "ally ourselves with, be loyal to, be devoted to, and obey the being who is responsible for this world" (170). Murphy has subsequently expanded his project into a book (Murphy 2017), where he addresses this remaining

worry by arguing that God can become worthy of our allegiance by freely choosing to take on additional duties of care.

Murphy's thesis, both in the essay and the book, is a provocative one. Even if one is not persuaded, however, his project is valuable for carefully laying out and critiquing foundational assumptions about the nature of God that are typically left unstated, much less argued for, in debates about God and evil.

Evolutionary Debunking Arguments

Several chapters in *CMRB* discuss "evolutionary debunking arguments" of religious and moral beliefs. I found FitzPatrick's and Thurow's discussions particularly insightful. While FitzPatrick's chapter discusses moral epistemology, I include it here to bring out parallels with Thurow's chapter on religious epistemology.

William J. FitzPatrick (2014), "Why There Is No Darwinian Dilemma for Ethical Realism"

According to Street's (2006) "Darwinian dilemma" for moral realism, the findings of evolutionary science show that if moral realism—the position that there are mind-independent moral facts—is true, then our moral beliefs are irrational.[6] Consider the moral belief-forming dispositions of our ancestors. In general, natural selection will select for belief-forming dispositions that promote the reproductive success of their bearers. In some cases, these will be the dispositions that tend to get at the truth: "With perceptual beliefs, for example, and commonsense inductive beliefs, it was precisely by contributing accurate representation of the world (or at least of biologically relevant aspects of the world for ancestral humans) that certain beliefs had the relevant biological effects" (239; see also the discussion in Ritchie and Spencer 2014: chapter 2). By contrast, if a genetic variation codes for belief in God and this leads to rule-following when no human is present and this increases social stability, this will lead to a fitness advantage whether or not God exists. Our ancestors' moral dispositions, Street argues, are more like this latter example: if there are independent moral facts, then they played no role in the evolution of these dispositions. Being disposed to believe that harming members of one's ingroup is wrong, for example, will tend to lead to cooperation regardless of whether this belief is true.

Street's argument has been massively influential: her 2006 article has been cited 745 times. FitzPatrick argues, however, that we can grant everything above and still be moral realists. For realists should say that, while evolution played a role in shaping our ancestors' moral dispositions, our current moral beliefs are based on developments that go beyond these dispositions—in particular, that they are formed by reasoning and reflection that involves apprehending moral facts. There is still a challenge to explain how such apprehension occurs. But this is not a new challenge, and evolutionary biology does not contribute to it. Moreover, it's doubtful that science *could* ever show

[6] In her 2014, Street argues that theism has this same implication: if theism is true, then we must conclude that God has a reason to allow the terrible evils we observe, in which case we should no longer trust our ordinary intuitions about the moral reasons *we* have.

us that we can't know independent moral facts through apprehension: while it can show us that there is evolutionary influence on some of our moral beliefs, "Evolutionary biology doesn't even engage with such philosophical issues as whether there are moral facts the apprehension of which might explain some of our moral beliefs, so it obviously cannot settle such questions for us, and it is hard to see how it ever could without begging just these philosophical questions" (248).

Joshua Thurow (2014), "Does the Scientific Study of Religion Cast Doubt on Theistic Beliefs?"

Some skeptics argue that scientific research into the evolutionary origins of religion shows theistic beliefs to be irrational. Two ways in which it might do so are by showing that (1) there are no good reasons for theistic belief or that (2) even if there are good reasons, theists do not base their beliefs on good reasons.

Thurow grants that evolutionary science may undermine some arguments for theism, but maintains that it does not undermine others. Consider C.S. Lewis's (1952) "argument from desire," which Lewis states as follows (quoted by Thurow on p. 284):

> Creatures are not born with desires unless satisfaction for those desires exists. A baby feels hunger: well, there is such a thing as food. A duckling wants to swim: well, there is such a thing as water. Men feel sexual desire: well, there is such a thing as sex. If I find in myself a desire which no experience in this world can satisfy, the most probable explanation is that I was made for another world.

One evolutionary explanation of religion is that belief in gods was selected for because it motivated our ancestors to be more cooperative. This same explanation can be given for "desires directed at the gods—desires not to anger them, to be on their good side," etc. (286). This explanation does not require that gods exist. It is thus possible to give a non-object entailing explanation of natural human desires, and Lewis's inference from our having a desire to commune with God to the existence of God is accordingly weakened.

But other arguments for theism are not affected by the evolutionary science of religion. According to the cosmological and design arguments for theism, God is necessary to explain the existence of the universe and its design. The evolutionary science of religion does not show these premises to be false, or give us good reason to doubt their truth.

Thurow further contends that, if there are good arguments for theism, then many theists may believe on the basis of good reasons, as far as the science has shown. Even if the evolutionary science of religion is right about evolved belief-forming tendencies, it may still be that most theists today believe on the basis of the kinds of evidential considerations that philosophers put forward, such as the universe needing a designer. One might argue that our belief-forming tendencies will bias us in favor of accepting such arguments even if they are not good. But we can easily override our natural tendency to attribute agency in other domains when we understand the relevant phenomena better. Moreover, for many people, their acceptance of theistic arguments will be at least partly due to more domain-general skills in evaluating evidence. At any rate, even if the relevant science shows that *some* religious believers are irrational (e.g., those who believe solely on the basis of the argument from

desire), "someone who puts (some or) no stock in the Argument from Desire, but (also) believes in part based on various religious experiences, together with cosmological and design kinds of reasons, bolstered by testimony of experts in her community, may be nearly just as rational after having learned about [this science] as before" (290).

FitzPatrick's and Thurow's articles are nicely complementary: just as FitzPatrick observes that evolutionary science can, at most, tell us about what evolutionary inputs there were historically to moral belief in general, and not what all the causes of our current moral beliefs are, Thurow observes that evolutionary theories about the historical inputs to our ancestors' religious beliefs do not tell us what all the causes of our current religious beliefs are. The science thus cannot show that moral or religious belief is "always, everywhere, and for anyone" (to use Clifford's (1877) memorable phrase) irrational. Moral and religious belief are extremely diverse, and need to be evaluated on a much more fine-grained basis than this.

Fine-Tuning

The articles summarized so far in this section have all addressed skeptical arguments *against* theistic (or moral) belief. This is, I think, somewhat telling in itself—it suggests that many contemporary theistic philosophers see their primary task as defending theism against attacks. This is perhaps in turn connected to a Plantingian religious epistemology on which defending theism is a matter of responding to purported "defeaters" (see Section 4.1 below). I now turn to articles that examine positive cases for religious belief. The two articles I highlight in this sub-section both defend one of the most popular recent arguments for the existence of God: the fine-tuning argument.

John Hawthorne and Yoav Isaacs (2018), "Fine-Tuning Fine-Tuning"

Our current best physical theories involve the assignment of values to various physical parameters. An example is the cosmological constant, one of the terms in Einstein's field equations, which helps determine the speed at which the universe expands. Hawthorne and Isaac's "core argument" centers on the following three claims:

(i) On measures over possibilities suitable for ideal physics, only a small region of the possible range of values of the cosmological constant is life-permitting;
(ii) If theism (which here is the proposition that the universe was designed by one or more deities) is false, then nothing very close to theism (like the universe being designed by something that is not quite an agent) is true;
(iii) Physical reality consists only of this universe.

Hawthorne and Isaacs claim that if (i)–(iii) are true, then theism is significantly more plausible than atheism.

Hawthorne and Isaacs emphasize that, according to (i), the range of life-permitting values of the cosmological constant is extraordinarily small: on the order of 1/10^120. Consequently, they suggest, to avoid their conclusion, one must hold either that (i)–(iii), together with life, are extremely improbable on theism, or one must hold that the prior probability of theism is extraordinarily low. Neither response seems plausible. For example, one might hold that God could have created non-

physical life, and so that life of the kind we find is unlikely given theism. But even if it is 80% probable that God would make non-physical life, given that he makes life, physical life + (i)–(iii) remains extraordinarily more likely given theism than atheism. Similarly, to have a prior probability for theism so low as to outweigh the evidence for theism at hand, one would have to think that the prior probability of theism was lower than the probability of correctly "guessing an atom randomly selected from the known universe" (150). Even if theism is antecedently unlikely, it's not *that* antecedently unlikely.

Are (i)–(iii) true? (i) follows from our best science; but that science could in principle be wrong. The falsity of (ii) is an interesting option, as is the possibility of a multiverse. But these possibilities are all antecedently improbable, and so we are left with strong evidence for the existence of God, even if it is also evidence for the falsity of one of (i)–(iii).

John Hawthorne and Yoaav Isaacs (2017), "Misapprehensions about the Fine-Tuning Argument"

This article of Hawthorne and Isaacs's responds to popular objections to the fine-tuning argument. One objection is a pessimistic induction from bad past arguments: in the past, natural phenomena used to argue for the existence of God ended up having naturalistic explanations; so, we should expect that to happen in this case as well. A related objection is that theists wrongly take any gap in scientific understanding to provide evidence for divine intervention. A third objection is that we cannot have evidence for theism because theism is not a scientific hypothesis.

Hawthorne and Isaacs think all these objections fail on their own merits. For example, defenders of the fine-tuning argument do not hold that fine-tuning is evidence for theism simply because we don't have a naturalistic explanation for it, but because we have reason to think that a naturalistic explanation is extremely unlikely. But we can also see that these objections can't work because if they did, they would prove too much: "If we discovered the opening of the Gospel of John written onto the interior of every atom, it would be outlandish to remain nonchalant on the grounds that a naturalistic explanation for the writing would soon be forthcoming" (139) or "that the gap in our scientific understanding would soon be filled" (141) or that "theism is not a scientific hypothesis" (147).

The most serious objection Hawthorne and Isaacs consider is that we cannot meaningfully make claims about the probability of the parameters of physics being life-permitting, given atheism, because the range of values these parameters can take on is infinite, and it is impossible to assign an "indifferent" probability distribution (on which, for example, it is equally likely that a value falls between 0 and 1 as that it falls between 1 and 2) over an infinite range. Hawthorne and Isaacs reply that this objection misunderstands the physics. Physicists do not assign an equal probability to all areas of parameter space. For example, some parameters involve ratios of quantities, like the mass of the proton to the mass of the electron. We clearly shouldn't assign equal probabilities to this ratio falling between 0 and 1 and between 1 and 2, because this would be inconsistent with our assigning equal probabilities to the ratio of the mass of the electron to the mass of the proton falling between each of these ranges. In other cases, the parameter is a function of other constants, and the low probability of its being in the life-permitting range results from its only falling in that range if the values of those other constants cancel each other out in a surprising way. For example, the

cosmological constant is calculated by adding several other (positive and negative) numbers of order 10^120 together. One would expect this sum to be of order 10^120 itself; instead, it is just above 0. This is rather like, if Bill and Melinda Gates decided to start living the high life, capriciously spending on all sort of extravagant things, their spending at the end of the year just happened to be perfectly balanced by the earnings of Microsoft stocks, so that "their net worth increased by just under a dollar" (151n44).

As I discuss in Section 4.2, I have some reservations about Hawthorne and Isaacs's presentation of the fine-tuning argument. However, their response to objections in this article is valuable; I think they deftly show many popular objections to the fine-tuning argument to be untenable. Their response to the infinite range problem is particularly interesting; I know of no previous philosophy article that has recognized their point about the way in which physicists calculate the value of the cosmological constant. As I noted above with respect to evolutionary debunking arguments, when looking at the philosophical implications of science, it is imperative to get the science right; and here it seems that many philosophical critics (and advocates!) of the fine-tuning argument may have been getting the science wrong. Hawthorne and Isaacs are currently working on a book, together with Aron Wall, *The Foundations of Fine-Tuning*, which I hope will expand on their contributions here.

Pascal's Wager

The fine-tuning argument, if it is successful, shows the probability of theism given fine-tuning to be much higher than the prior probability of theism. The probability of theism on our total evidence will also depend on the evidential force of other considerations, such as the problem of evil. Even once we have a probability of theism on our evidence, though, there remains the question of whether that probability is sufficient for us to know, or rationally believe, that God exists. These two articles address the question of how probable theism must be for us to know or rationally believe it.

Elizabeth Jackson and Andrew Rogers (2019), "Salvaging Pascal's Wager"

In its classic formulation, Pascal's wager represents the decision of whether to believe in God as a decision matrix with four possibilities:

	God exists	God does not exist
Believe in God	Infinite utility	Finite utility
Don't believe in God	Infinite negative utility	Finite utility

Orthodox decision theory tells us that to calculate the expected value of an action, we should average over the value on each possibility, weighted by the probability of that possibility. This means that, in the above decision matrix, the expected value of believing in God is infinite, and the expected value of not believing in God infinitely negative, *no matter how low the probability that God does not exist*—provided that it is not 0.

Jackson and Rogers argue that this argument is fundamentally sound, even if this formulation of it is too simple. They begin by responding to two key objections. The first is the "many gods" objection—there are many other possible gods that we could believe in besides the Christian God Pascal asks us to wager on, leading to incompatible options that all have infinite (or undefined) expected utility. There are even possibilities on which only atheists experience eternal pleasure, or on which a jealous god leaves atheists alone but punishes people who follow the wrong religion. The second objection is that there are alternatives to believing in God that also have infinite expected value. For example, flipping a coin and believing if and only if lands heads has infinite expected value. The wager does not show that we should not employ one of these "mixed strategies."

Jackson and Rogers maintain that these objections are "formal, but not substantive"—that is, they are problems for using orthodox decision theory to formally represent the wager, but are not substantive problems for the idea that the formal representation seeks to capture. Even if we don't know what the best way to formally model infinite expected utility theory is, it is clear from examples that we can rationally compare different infinities in making decisions. For example, we should prefer an infinite number of days of ecstatic joy over an infinite number of days of moderate happiness; and we should prefer a .99 chance of an infinite number of days of happiness over a .01 chance of an infinite number of days of the same happiness (where the alternative is annihilation). Similarly, we should prefer believing in God over "mixed strategies"; and we should wager on the god who gives us the best chance of receiving the greatest amount of happiness, even where this involves comparing infinities.

Jackson and Rogers go on to suggest one way to alter decision theory to account for infinities, by taking the limit of increasingly long periods of finite value; and respond to a number of other objections to the wager. A key theme of their argument, relevant to the many gods objection, is that the rational course of action will depend on the probabilities of different religious and non-religious worldviews and the differing values that would result if each were true and we believed in them. The wager is thus a substantive and not merely formal argument; it works only when combined with substantive premises about the probability of (e.g.) orthodox Christianity, compared with other worldviews, and the value that would result from us believing in orthodox Christianity if it is true. For example, if a "jealous god" who specially punishes members of the wrong religion were highly probable, being an atheist might be the most rational course of action; but, substantively speaking, this hypothesis does not seem very probable. Many religions prescribe similar kinds of lives, which suggests that the god of any of them would prefer you practice one of the others rather than none at all.

Daniel Eaton and Timothy Pickavance (2017), "Wagering on Pragmatic Encroachment"

Pascal argued that we have pragmatic reason to believe in God, because the expected value of belief is higher than the expected value of non-belief. Eaton and Pickavance explore the implications of this expected value asymmetry for the possibility of knowing that God exists or that God does not exist if we assume, with "interest-relativists" about knowledge, that how hard it is to know a proposition depends on one's practical interests (see Section 2.2 above).

The variety of interest-relativism Eaton and Pickavance consider is one on which knowing that P requires that one's epistemic position with respect to P is *practically adequate*. What this means is that the actions that are currently rational for you are the same as the actions that would be rational for you if you were to learn P with certainty. For example, if you are a sea captain about to embark on a harbor tour with 200 passengers, and you are only 90% confident that your ship will not sink, you should do some further checking on the ship's seaworthiness before you depart. But if you were certain that the ship is seaworthy, further checking would not be rational. Your epistemic position with respect to the proposition that the ship is seaworthy is thus not practically adequate. By contrast, if you were already confident enough that the ship is seaworthy that further checking would not be worth it, then your epistemic position would be practically adequate, because becoming certain would not change what actions would be rational for you.

According to the variety of interest-relativism at hand, you can know that the ship is seaworthy in the latter situation but not the former. But now apply this to belief in God. As we saw above, on the classic formulation of Pascal's wager, the expected value of believing in God is greater than the expected value of not believing in God, no matter how improbable it is that God exists. This means that one's situation can be practically adequate with respect to theism even if the probability of theism is very low. By contrast, one's situation can never be practically adequate with respect to atheism, unless the probability of atheism is 1. It follows that it is practically impossible to know that atheism is true, but very easy to know that theism is true, assuming one meets the other conditions for knowledge (other than practical adequacy).

Like Jackson and Rogers, Eaton and Pickavance acknowledge that the classic formulation of Pascal's wager is overly simplistic. But they maintain that their conclusion—that it is much easier to know that theism is true (if it is) than that atheism is true (if it is) remains true on more plausible formulations of Pascal's wager that (for example) take into account the possibility of rival Gods. However, they stress that this conclusion only holds if interest-relativism is true. Accordingly, one could take their argument to be a *reductio* of interest-relativism, instead of an argument that theistic knowledge is easier than atheistic knowledge. Read this way, their argument complements Anderson's (2015) recent argument that interest-relativism implies that knowledge is sensitive to seemingly irrelevant changes in one's practical situation.

Religious Practice

The articles discussed so far in this section have all focused on the nature and status of religious (or moral) *belief*. But as Sosis and Kiper (2014) argue, religion involves much more than belief. These two articles address questions about the nature and rationality of religious practice.

Paulina Sliwa (2018), "Know-How and Acts of Faith"

Sosis and Kiper use anthropological evidence to argue that religion is a combination of belief and practice; but a similar argument can be made from a theological standpoint. Sliwa argues that *religious faith* requires more than just propositional belief: in particular, it requires a certain kind of practical knowledge—*know-how*. Having faith in someone requires that one knows how to perform acts of faith toward them. Knowing how to perform acts of faith in turn requires that one know how

to properly engage with the object of one's faith. If Ahmed goes on Hajj merely to benefit his business, and not to fulfill his religious obligation as a Muslim, he is not performing an act of faith. If he does not even know *how* to properly orient himself toward God on the Hajj, then he does not really have faith in God.

One interesting implication of this argument is with respect to learning from one's fellow religious adherents. Just as we get propositional knowledge from listening to others' testimony, we get know-how from relying on the demonstrations of others: "Showing is the practical analogue of assertion" (259). We come to religious faith both by listening to others' religious testimony (gaining propositional knowledge) but also by witnessing and imitating others' religious practices (gaining practical knowledge).

Helen de Cruz (2018), "Etiological Challenges to Religious Practice"

Sliwa argues that an important part of religious faith is knowing how to properly orient oneself toward God. This leaves it open, however, whether anyone *does* know how to do this. Just as the truth and rationality of religious beliefs can be challenged, the efficacy and rationality of religious practices can similarly be challenged. In this article, De Cruz considers the question of whether the cognitive science of religion can show religious practices to be irrational. She argues that they can, if we assume that a religious practice is not rational if we are not justified in believing that it achieves its religious aims.

Eastern Orthodox rituals, for example, aim at engaging God. But some evolutionary explanations of religious ritual, if they apply to this case, suggest that it fails in this aim. One such explanation is that religious rituals are costly signals that show one's commitment to the group. In this way rituals improve group cohesion, while also contributing to hostility toward those outside the group. If Eastern Orthodox rituals arose as a means of signaling group commitment, it is unlikely that they succeed at engaging God. This is because it is unlikely that a morally perfect, all-knowing, and all-powerful God would choose this means for creatures to relate to him, when he could have chosen different means which did not result in outgroup hatred.

De Cruz's conclusion is modest, however. She acknowledges that (as skeptical theists argue) the gap between God's psychology should make us less confident in our conclusions about what means God would take to his ends. In addition, she observes (like Thurow and FitzPatrick) that the relevant empirical research "is nowhere near offering an exhaustive account" of religious practice (337). Again, we need to be cautious to not make empirical assumptions that go beyond the science when making philosophical arguments from science.

IV. REFLECTIONS AND FUTURE DIRECTIONS

Having outlined some major recent epistemological trends and their influence on the grant publications, and having summarized some of the most significant publications resulting from the grants, in this final section I reflect on what I see as some major unresolved issues that continue to drive disagreement among grant authors, and that would be fruitful areas for future research.

Defeat and Probability

I noted in the introduction that twentieth-century epistemology of religion was dominated by two rival camps: Plantingian reformed epistemology and Swinburnian evidentialism. These two camps are in turn representative of externalist and internalist perspectives in epistemology more generally. While few of the grant authors explicitly presuppose an externalist or internalist epistemology, and fewer still seek to adjudicate this dispute, these two frameworks continue to lead to different ways of addressing questions of religious epistemology.

Let me explain the influences that I see. In the introduction to *CMRB*, Bergmann and Kain discuss three kinds of challenges to moral and religious belief: disagreement about the contents of the beliefs, disagreement about what sources are reliable sources of information about these contents, and information about the evolutionary origins of the beliefs. They write (Bergmann and Kain 2014a: 2):

> In each of these three cases, the challenges may be thought of as potential defeaters for moral or religious beliefs. A defeater for a belief is a reason to stop holding the belief. It may be either a reason to hold that the belief is false (this is called a rebutting defeater) or a reason to doubt that the belief was formed in a trustworthy way (this is called an undercutting defeater). Undercutting defeaters are reasons to stop holding the belief (or, perhaps, to hold it with less confidence) but not reasons to think that belief is false. So, for example, the argument from evil against the existence of an omnipotent, omniscient, perfectly good divine person may be a reason for atheism (a rebutting defeater for theism) whereas an objection to the cogency of all of the theistic arguments on which a person's argument-based belief in God is grounded may be a reason for agnosticism (an undercutting defeater for theism), but not a reason for atheism.

Here, Bergmann and Kain adopt a particular framework for thinking about arguments against religious (and moral) belief, describing these arguments as (giving us) *defeaters*. Other authors rely heavily on the notion of defeaters in their essays as well, including Locke (2014), Moser (2014), Fricker (2014), Goldberg (2014), Lackey (2014), Bergmann (2015), Baker-Hytch (2018), Anderson (2018), and Swinburne (2018).

The concept of defeaters (along with the rebutting/undercutting distinction) was originally popularized in epistemology by Pollock (1974).[7] However, the way in which the concept is deployed in the above exposition is squarely Plantingian. For example, Bergmann and Kain's explanation of the rebutting/undercutting defeater distinction parallels Plantinga's (2000) distinction between *de facto*/*de jure* objections. And while Pollock talked about defeaters for *reasons* for belief, Bergmann and Kain (2014a)—along with Baker-Hytch (2018), Anderson (2018), Locke (2014), Bergmann

[7] The first philosophical publication that I can find in Google Scholar that uses the term 'defeater' is Sosa 1970. Pollock, however, seems to have been the one who popularized the concept, with his 1974 becoming the standard reference (Pollock's book has now been cited 629 times, and Sosa's article 24 times).

(2015), Moser (2014), Goldberg (2014), and Lackey (2014)—all talk about defeaters for *belief*. As far as I can tell, the first text to talk about defeaters for belief was Plantinga (1983).

On Plantinga's epistemology, some religious beliefs are *properly basic*, in that they are not based on further arguments or evidence, but are instead formed immediately in response to certain kinds of experiences, in the same way that perceptual and intuitive beliefs are. Plantinga (2000) further gives a theory of knowledge on which the only basic beliefs that can be known are those that are formed in accordance with one's design plan, and argues that if Christian beliefs are true then they are so formed. Bergmann (2006) extends this "proper functionalist" framework to analyze justified belief as well. But since it would appear to be untenably dogmatic to hold that, so long as one forms one's beliefs in accordance with one's design plan, then they are justified even if one subsequently gets strong evidence against them, both Plantinga and Bergmann take it to be necessary for justification/knowledge that one's belief be *undefeated*. The overall picture, then, is that we start with justified basic beliefs, and then they retain this justified status until a defeater comes along that robs them of that status.

Not all of the authors listed above endorse Plantinga and Bergmann's externalist religious epistemology (Swinburne being the most obvious exception). But most of them, in their respective discussions, seem to me to be tacitly working within a broadly Plantingian framework, on which the task of defending theism is not one of giving positive arguments for theism, but rather starting with the *presumption* that religious beliefs are justified, and then seeing whether there are *defeaters* for that presumption that need to be responded to. (To adopt a legal metaphor, religious belief is presumed innocent until proven guilty.) The all-things-considered justificatory status of a belief is conceived as in some way being a function of its initial justification, combined with the effects of defeaters in it.

In principle, this approach is compatible with thinking that religious beliefs are not basic, but formed in response to evidence or arguments. The picture is then one on which, once one has the arguments, one's belief is justified, and the only question that remains is whether there are defeaters out there that threaten that justification (whether by "undercutting" the arguments or by "rebutting" the belief directly). However, this approach appears to me to be *prima facie* in tension with a probabilistic approach to religious epistemology, like that employed in Benton, Hawthorne, and Isaacs (2016); Benton (2018); Hawthorne and Isaacs (2018 and 2017); Choi (2018); Swinburne (2018); Eaton and Pickavance (2017); and Jackson and Rogers (2019). Let me explain.

The epistemologies in these essays differ, but to a first approximation, they are working within a broadly Swinburnian, evidentialist view, on which whether a religious belief is justified is a function of two things: how probable it is on one's evidence, and how probable a belief has to be on one's evidence, for it to be justified. According to interest-relativists, this latter threshold can vary according to what's at stake, but if we hold the stakes fixed, then the only thing that makes a difference to one's belief is how probable it is on one's evidence.

In this case, what you want to figure out is (a) what your evidence is and (b) how probable your evidence makes the proposition you are interested in. Suppose, for instance, that you are interested in theism, and that your evidence is that the universe is fine-tuned for life and that terrible evil and

suffering exist. The first proposition is evidence for theism and the latter evidence against it. To figure out the probability of theism on your total evidence, you need to figure out, first, how intrinsically probable theism is—how probable it is apart from this evidence—and second, how much more likely these evidences are given that theism is false than given that it is true. Bayes' Theorem will then let you combine these to calculate the posterior probability of theism.

It is unclear where, if at all, defeaters enter into this picture. Suppose that we first consider the fine-tuning evidence, and relative to this, the probability of theism is .9. We then come to believe theism. We then consider the evidence of evil and realize that relative to both evidences, the probability of theism is .2. We then cease to believe theism. It does not seem to matter whether or not evil counts as a "defeater" for theistic belief here. Of course, one might say that evil defeats theism just in case it lowers its probability (this seems to be how Swinburne (2018: 327) understands defeat), or just in case it lowers it below the threshold for belief—.5, say. But then it seems that all the important work is being done by the probabilities, and we can dispense with talk of defeat.

In addition, treating beliefs as "defeated" in this way seems to attach importance to the "belief threshold" that cannot be captured in the probabilistic framework. Suppose that the probability of theism on fine-tuning is only .49, so that you do not believe it. The existence of evil then lowers the probability of theism in the same way as before. Here evil is not a defeater for your *belief*, because you had no belief. But the evidential disconfirmation seems (to the probabilist, at any rate) like the same phenomenon in both cases, even though in the first case there is a belief to be defeated and in the latter there is not.

I have suggested that, while most of the grant authors do not make epistemic externalism or internalism an explicit premise in their arguments, the ways in which they formulate their arguments are importantly influenced by these two traditions. Those influenced by the externalist Plantingian tradition are more likely to take an "innocent until proven guilty" approach to the epistemology of religion, where we start out assuming that religious beliefs are justified, and then consider whether there are any "defeaters" for them. Those influenced by the internalist Swinburnian tradition are more likely to approach the epistemology of religion in probabilistic terms, where we start out by asking what our evidence is and then seek to determine how probable religious claims are given this evidence.

An important question is whether these two approaches are reconciliable: are they mere notational variants, or do they encode incompatible philosophical assumptions? I have given some reasons for thinking that the latter is the case. If this is so, then to make progress in the epistemology of religion we must return—again—to foundational questions.

In doing so, we may find ways to reconcile defeater-talk and probability-talk. For example, if we returned to talking about *reasons* for belief, rather than beliefs themselves, being defeated, we could make sense of defeaters being present even when there is no belief present. (The fact that this table looks red might be a reason for me to believe that it is red even if I do not in fact believe that it is red; and this reason can be defeated whether or not I form the belief that the table is red.) If we then understood "P is a reason for belief that Q" as "P raises the probability of Q," then we could perhaps understand different kinds of defeaters within a probabilistic framework—perhaps as particular kinds

of probabilistic phenomena, like "screening off" (Hitchcock 2018), or perhaps as phenomena that somehow help determine the values of probabilities.

But we should not assume that any such rapprochement as may be possible will end all disagreements between externalists and internalists in the epistemology of religion. Proper functionalists and internalist evidentialists give different analyses of when a belief is justified and known, and these theories will accordingly sometimes come apart in their implications for whether certain religious beliefs are justified and known. Addressing these foundational questions in epistemology thus remains an important question for answering applied questions in the epistemology of religion.

Probability and Fine-tuning

In the previous sub-section I explored the commensurability, or lack thereof, of defeater-talk and probability-talk. I noted that one way to reconcile the two might involve replacing "D is a defeater for belief B" language with "D is defeater for reason R for belief B" language. This suggestion illustrates the importance of clarifying our fundamental conceptual tools, recognizing their genealogies, and reflecting on semantic shifts that have occurred. After being introduced, technical concepts can shift in unrecognized ways that end up encoding substantive philosophical assumptions. Revisiting foundational issues helps ensure that we are not illicitly smuggling in unacknowledged assumptions in the way we set up our arguments.

In this sub-section I want to make a similar point with respect to the other concept above, that of probability, exploring some internal tensions in the way this concept is employed in the grant outputs on the fine-tuning argument (FTA).

As the grant outputs on fine-tuning show, there is still little agreement on what the proper probabilistic formulation of the FTA is. Here it will be helpful to have some abbreviations for the various propositions at play:

> P = The information from physics about the space of physically possible universes, only a small proportion of which allow for life
>
> L = The fact that the universe is life-permitting
>
> T = Theism (the claim that God exists)
>
> ~T = Atheism (the claim that theism is false)

I set aside a number of complications, including how to define God, and the possibility of versions of "atheism" (as defined above) on which lesser deities exist. I also set aside the possibility that atheism is true but that our universe is only one of multiple universes with different laws of physics, so that we live in a "multiverse." These complications are important for a full evaluation of the evidential impact of fine-tuning—and I personally suspect that they are among the most fruitful areas for future philosophical investigation on this topic—but they are not relevant to the issues I wish to explore here.

Advocates of the FTA claim that the argument gives us evidence for T over ~T. (They usually claim that it gives us quite *strong* evidence, but here I focus only on the weaker claim.) This does not mean that T is more probable than ~T, all things considered, but only that we have evidence in favor of T and against ~T—that is, that T is more probable than it would otherwise have been. What, though, is the evidence in question?

On the most common way of presenting the FTA, followed by Choi (2018) and Halvorson (2018), L is the evidence for T, and P is "background information" that we evaluate the evidential import of L relative to. Schematically, we have the following argument (read "P(A|B)" as "the probability of A given B"):

(1) P(L|T&P) > P(L|~T&P).
(2) If P(L|T&P) > P(L|~T&P), then L is evidence for T relative to P.

Therefore,

(3) L is evidence for T relative to P.

Premise (2) follows from a standard probabilistic analysis of evidential support. Premise (1) is thus the substantive claim in the argument. According to (1), P(L|~T&P) is lower than P(L|T&P). The idea is that according to P, variables like the mass of the neutron need to have values within very small ranges, relative to their total possible range, in order for life to exist. (I set aside here the possibility of some variables having infinite ranges, which Choi and Hawthorne and Isaacs discuss.) If atheism is true, there is no antecedent reason to expect the neutron to have one mass rather than another,[8] and so the probability that its mass will fall in the life-permitting range is very small. By contrast, if theism is true, there is some reason to expect God to create a life-permitting universe, and so the probability that the mass of the neutron falls in the life-permitting range is higher.

Some philosophers have raised objections to this formulation of the argument, related to the fact that L is "old evidence"—we knew that the universe was life-permitting before we learned what the space of physically possible universes looked like. Indeed, we have always known that the universe was life-permitting, because here we are. Consequently, some philosophers have preferred to formulate the FTA so that *P* is our evidence, and the question we are asking is how P changes the probability of T, relative to L (Weisberg 2010, 2012). This presentation is followed by Hawthorne and Isaacs in their 2018 and 2017 essays. Here, schematically, the argument is:

(4) P(P|T&L) > P(P|~T&L).
(5) If P(P|T&L) > P(P|~T&L), then P is evidence for T relative to L.

Therefore,

(6) P is evidence for T relative to L.

[8] But see Section 3.4 for some complications with this way of putting it.

Weisberg (2010) and others have objected to premise (4) of this argument. Hawthorne and Isaacs (2018) critique Weisberg's objection, as well as White's (2011) alternative defense of (4). Call laws that require fine-tuning to produce life "stringent." The core of Weisberg's objection is that once we already know that the universe is life-permitting, we have no reason to expect that, if God has made the universe life-permitting, he has chosen to make it life-permitting by fine-tuning stringent laws rather than by making non-stringent laws that do not require fine-tuning in the first place. Hawthorne and Isaacs (2018) respond that all we need is "ordinary uncertainty about divine sensibilities," and the probability "of God creating a fine-tuned world" will be much greater than the world being fine-tuned by chance. They write:

> Note that the right side of the inequality in [(4)] is staggeringly small. Naturalistic laws that are stringent are, by definition, hugely unlikely to produce life. Similarly, naturalistic laws that are not stringent are, by definition, hugely more likely to produce life. Thus the overwhelming majority of the share of not-[T] and [L] worlds are worlds in which not-[P]. All [(4)] needs is for the odds of God being interested in quasars, physics, or the fine-tuning argument to be greater than 1 in 10^120 (Hawthorne and Isaacs 2018: 152).

It seems to me that Hawthorne and Isaacs here reveal some confusion in how they are thinking about the FTA. Recall that (4) says that P(P|T&L) > P(P|~T&L). But 1 in 10^120 is the value that P(L|~T&P) is supposed to have (based on a physical measure over the possible values of the cosmological constant). Hawthorne and Isaacs appear to have confused (4) and (1)—they have confused the probability that the universe would allow for life, given atheism and the stringent laws, with the probability of stringent laws, given atheism and that the universe allows for life. Even if the former probability is 1 in 10^120, it does not follow that the latter is 1 in 10^120. Nor does it follow from the fact that atheistic worlds with non-stringent laws "are hugely more likely to produce life" that most atheistic worlds that do produce life have non-stringent laws. This is a probabilistic *modus tollens* (the probability of life given stringency is low, therefore the probability of stringency given life is low), which is not valid. To see this, imagine that there are *no* worlds with non-stringent laws. Then there are no life-producing worlds with non-stringent laws. Hence, P(P|~T&L) = 1, because P(P) = 1.

Let's examine a bit more carefully the two options of how to present the FTA—with L as the salient evidence, taking P as given, or with P as the salient evidence, taking L as given. Everyone should agree that what ultimately interests us is the probability of theism on our total evidence, and to calculate this we need to take all our evidence into account, including both L and P (see Kotzen 2012), as well any other further evidence we have relevant to theism (such as miracle reports and the evil and suffering we observe). But when we have multiple evidences, we can calculate their impact in different ways. In the case at hand, we can first calculate the impact of L on T, and then examine the impact of P on T relative to L, or first calculate the impact of P on T, and then examine the impact of L on T relative to P. We can, that is, break down the posterior odds of T as either

$$\frac{P(T|L\&P)}{P(\sim T|L\&P)} = \frac{P(T)}{P(\sim T)} \times \frac{P(P|T)}{P(P|\sim T)} \times \frac{P(L|T\&P)}{P(L|\sim T\&P)}$$

or as

$$\frac{P(T|L\&P)}{P(\sim T|L\&P)} = \frac{P(T)}{P(\sim T)} \times \frac{P(L|T)}{P(L|\sim T)} \times \frac{P(P|T\&L)}{P(P|\sim T\&L)}$$

In principle, both of these calculations should give us the same result. But the terms in one of these equations might be more tractable than the terms in the other, so that one way of calculating the probability is more perspicuous than the other.

Why do some authors favor the first calculation, while others favor the second? I would suggest that the disagreement is based partly on different views of probability. The second method fits naturally with an interpretation of probabilities as degrees of belief, on which we think about probabilities being "updated" as one learns more information. Here the evidential import of different facts is based on the *order in which the facts are learned*. We learned that life exists before we learned about the space of physical possibilities, and so we should evaluate the import of the first fact first.

The first method fits naturally with an interpretation of probabilities as degrees of support, on which we think about some probabilistic support relations as grounded in other ones. Here the evidential import of different facts is based on the *order of explanation among the facts*. (I elaborate on this in Climenhaga 2019a and 2019b.) The space of physical possibilities is explanatorily prior to which of those possibilities is actual—the facts about what form the laws of physics can take constrain the form they actually do take.

Swinburne (1973, 1979, 2001) endorses the degree-of-support interpretation, but the degree-of-belief interpretation is the orthodox one in the philosophy of science, going back to Ramsey (1926) and de Finetti (1931). Its influence is evident in the publications supported by the two grants; with a couple of notable exceptions (including Swinburne 2018 and Choi 2018), nearly all the authors who employ probability theory use subjectivist language, taking "credences" or "degrees of belief" as their primary notion. But as we've seen, this naturally leads to the first method for incorporating the fine-tuning evidence above. If we adopt the degree-of-support interpretation and employ the second method, on the other hand, we are able to avoid Weisberg's objection, and give more principled grounds for the value we assign to one of the key probabilities, P(L|~T&P)—since, in principle, this should fall out of the relevant physics, unlike P(P|L&~T), which does not fall out of the physics.

Different views about the nature of probability also affect the authors' judgments about the cogency of the FTA. Halvorson (2018) argues that theists should reject (1), according to which P(L|T&P) > P(L|~T&P). Halvorson's argument is that the laws of physics, whether or not they were set by God, set the chances for a life-permitting universe, and that these chances hold whether or not God exists. If, for example, 1 out of every 100 universes permitted by the laws of physics are life-permitting, then P(L|T&P) = P(L|~T&P) = 1/100. Hawthorne and Isaacs, on the other hand, hold that physics can give us a "measure" over the space of physically possible universes, but that because of the methodological naturalism of physics, any "physically respectable measure" will presuppose "that nothing supernatural is occurring" (140). To say that our "universe is fine-tuned for a property" is to say that it "possesses that property and the probability of that property is extremely low in all physically respectable measures" (141). That is, whatever physical measure we choose, it will make

P(L|~T&P) very low. But it will not follow that P(L|T&P) must be equally low, for the measure that gives us P(L|T&P) will not be a "physically respectable" one—for T allows that something supernatural *is* occurring, namely, divine action.

My own sympathies in this disagreement lie with Hawthorne and Isaacs. It would be useful, however, in adjudicating this and other disputes about the probabilities in the FTA, to ground discussions of the FTA in a better articulated theory of probability. Hawthorne and Isaacs (2018: 137) begin their exposition of the FTA by talking about degrees of belief and the requirement that they conform to the mathematical rules of probability. This suggests a degree-of-belief interpretation of probability. Halvorson's invocation of the language of "chance" suggests that he thinks of probabilities, at least in some cases, as empirical properties of the world, rather than as properties of an agent's mind. I suggested above a third view, on which probabilities are objective but non-empirical relations of evidential support, which rationally constrain degrees of belief; and noted that this view may solve some problems that arise for Hawthorne and Isaacs's formulation of the FTA. Greater clarity on these more fundamental questions about the nature of probability could help clarify contentious matters with regards to the FTA.

Integration

So far in this concluding section I have suggested that future work in religious epistemology needs to (again) address well-worn but fundamental issues about the requirements of rational belief and the interpretation of concepts such as defeat and probability. Here my concern is that many debates are taking place at too high a level, and we need to be sure that we have done the appropriate foundational work first. In closing, I want to make another suggestion that is somewhat in tension with this—namely, that we also devote more attention to higher-level, integrative questions.

Several of the grant publications discuss arguments for and against religious claims, as well as the conditions under which religious beliefs can be rational without arguments. Usually, though, these discussions take place with a fairly narrow focus: the authors aim to show that evil does not defeat theistic belief, say, or that fine-tuning makes theism more likely than it otherwise would be. This is perfectly reasonable: often we need to focus on a particular argument or evidence in order to evaluate it, and one can only do so much in an essay. However, this leaves as an open question what the rational response is to *all* the evidence for and against God's existence. If fine-tuning is evidence for theism and evil evidence against it, how do these evidences weigh off against each other? If theistic belief is rational on the basis of religious experience, and not defeated by the existence of evil or the existence of disagreement, might it nevertheless be defeated by the existence of evil *and* disagreement?

This is not to say that these questions have been entirely ignored. Both Plantinga and Swinburne, in their respective magnum opuses, aim to defend Christian belief, all-arguments-considered. However, I think there is still work to be done not only on such substantive integrative questions as how probable religious claims are, all-things-considered, but also on formal questions about how to go about weighing multiple arguments for and against a claim. The logic of cumulative reasoning is not straightforward, and further investigation into these questions would be welcome.

In addition, as several of the grant publications discuss, religion involves not only beliefs but also practices. De Cruz's (2018) investigation into the rationality of religious practices is a welcome one. Another welcome future development would be further work, not only on the nature and rationality of religious practice, but also on the connections between rational religious belief (or other kinds of religious attitudes, such as acceptance or hope) and rational religious action, as well as between propositional religious knowledge and practical religious knowledge.

V. WORKS CITED

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