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ORIGINAL ARTICLE

The problem of unconceived alternatives in science and religion

Simon Maria Kopf[1,2]

[1]ITI Catholic University, Trumau, Austria and [2]Blackfriars Hall, University of Oxford, Oxford, UK
Email: s.kopf@iti.ac.at

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Abstract

This paper argues that the problem of unconceived alternatives (PUA), originally formulated as a much-noted intervention in the realist/antirealist debate about scientific theories, has notable implications for discussions of hypotheses concerning ultimate reality – particularly for the debate about so-called (alternative) concepts of God in both philosophy of religion and theology. Despite the substantial differences between scientific theories and concepts of God, or other hypotheses concerning ultimate reality, certain common strategies for establishing their central claims as true show surprising similarities in their vulnerability to the PUA. The main thesis advanced is that inferences that the central claims of a given concept of God are (probably or approximately) true are unreliable if, and to the extent to which, that concept of God is accepted on the basis of, and its central claims are arrived at and justified through, inferences to the best explanation or eliminative inferences. If the argument is successful, then if theological realism in the form of realist theism is to be maintained, the central claims of concepts of God must be based also on other epistemic grounds.

Keywords: problem of unconceived alternatives; inference to the best explanation; concepts of God; alternative concepts of God; science and religion

Realism is arguably the current majority position in both science and religion. Scientific realism can be understood as 'the position that the central claims of our best scientific theories about how things stand in nature must be at least probably and/or approximately true' (Stanford 2006, 6).[1] By contrast, theological realism is taken here in the minimal, cognitivist sense as the position that at least some religious or theological statements are truth-apt – that is, capable of being true or false. For reasons that will become apparent, I shall refer to realist positions that affirm that at least the central religious or theological statements – particularly the central claims of a given concept of God – are also, in fact, true, or at least probably or approximately true, as 'realist theism'. Conversely, I shall refer to realist positions that, while accepting the truth-aptness of such statements or claims, deny their truth – holding them to be false – as 'realist atheism'.[2] Applied to concepts of God, then, realist theism is the position that the central claims of the best of our concepts of God are (probably or approximately) true.

Although in both cases, technically, the central claims of these theories and concepts are said to be true rather than the theories and concepts themselves, for simplicity's sake, I will

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sometimes speak of the truth of scientific theories and concepts of God, by which I mean that their central claims are (probably or approximately) true.

A common line of reasoning levelled against scientific realism is frequently referred to as *pessimistic induction*. Scientific realists commonly assume that the empirical success (or other such virtues) of scientific theories indicates that these theories are (probably or approximately) true. Antirealists reply that despite their empirical success, many past scientific theories have turned out to be false, so, probably, many present empirically successful theories will turn out to be false as well. Hence, so the argument goes, the empirical success (or other such virtues) of the best of our current scientific theories does not show their (probable or approximate) truth. Since the main problem here is that past *theories* were overturned as false, a common strategy is to show that current scientific theories are better than past ones.

The so-called *new induction* is an alternative formulation of the problem not in terms of theories, but in terms of theorists. In the sciences, realists commonly infer that the scientific theories that provide the best explanation for the evidence are (probably or approximately) true. Or likewise, that if all rival theories can be eliminated, the last remaining theory must be (probably or approximately) true. But such inferences only work, so the argument goes, if the truth is among the considered possibilities. So, to make the inference work reliably, theorists need to be confident that they have considered all relevant alternatives.

Think of it this way. A detective sets out to solve a murder case. Given the available evidence, she comes up with three suspects: the butler, the gardener, and the partner of the victim. The detective then concludes that the murder hypothesis that provides the best explanation for the evidence must be true. Or likewise, if she can eliminate all but one suspect, that suspect must be the murderer. It was, she infers, the gardener. But this inference can only work if the true murderer was among the considered suspects in the first place. So, the question arises: has the detective considered all relevant candidates?

Theorists can only consider those relevant possibilities that they have *conceived of* in the first place. What, then, about relevant unconceived (and thus unconsidered) alternatives? But how would we know? If theorists were conceiving of these alternatives, they would not be unconceived. Here is where the history of science comes into play. If there is convincing historical evidence of the past failure of theorists to exhaust the relevant possibility space when it comes to the most inaccessible parts of nature, then, probably, present theorists will fail to exhaust the relevant possibility space too, or so the argument goes. This is, in a nutshell, the so-called Problem of Unconceived Alternatives (PUA). The main problem here is that *theorists* have failed to conceive of relevant alternatives. If this is so, however, a necessary condition of the reliability of their inferences is not satisfied: they cannot be reasonably sure that the truth is among the possibilities they are considering. So, according to this way of posing the problem, the question is not whether present theories are better than past ones, but whether present theorists and scientific communities are in a better position than past ones. Along these lines, the PUA raises the question as to what understanding of scientific theories is appropriate to our epistemic context.

This paper argues that the PUA, originally formulated by philosopher of science P. Kyle Stanford (2006) as a much-noted intervention in the realist/antirealist debate about scientific theories, has notable implications for discussions of hypotheses concerning ultimate reality – particularly for the debate about so-called (alternative) concepts of God in both philosophy of religion and theology. Despite the substantial differences between scientific theories on the one hand, and philosophical as well as theological concepts of God, or other hypotheses concerning ultimate reality, on the other, it will be argued, certain common strategies for establishing the central claims of concepts of God or other hypotheses concerning ultimate reality show surprising similarities in their vulnerability to the PUA. In

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the context of philosophy of religion and theology, then, a related question arises as to what understanding of concepts of God, or hypotheses concerning ultimate reality more generally, is appropriate to our epistemic context.

The purpose of this paper is not to advocate theological antirealism, but rather to caution how we introduce and make use of the notion of God, or other hypotheses concerning ultimate reality, in philosophical and theological discourse. The main thesis advanced in this paper is that inferences that the central claims of a given concept of God are (probably or approximately) true are unreliable if, and to the extent to which, that concept of God is accepted on the basis of, and its central claims are arrived at and justified through, inferences to the best explanation or eliminative inferences. If the argument is successful, then if what I called realist theism is to be maintained, the central claims of concepts of God must be based also on other epistemic grounds.

Although the focus of the paper is on concepts of God, the same line of reasoning appears to extend more broadly to other hypotheses concerning ultimate reality, including atheistic ones, provided such hypotheses are taken to affirm anything as (probably or approximately) true about ultimate reality. In this extended form, the thesis would hold that inferences that the central claims of a hypothesis concerning ultimate reality are (probably or approximately) true are unreliable if, and to the extent to which, that hypothesis is accepted on the basis of, and its central claims are arrived at and justified through, inferences to the best explanation or eliminative inferences.

To this end, the paper is structured in three parts, each consisting of two sections. Part one discusses the PUA in science, particularly in fundamental theoretical science. Section one deals with eliminative inferences and section two with inferences to the best explanation. Part two discusses the PUA in religion, specifically in relation to concepts of God. The first section of part two demarcates the relevant possibility space and the second section deals with the relevant historical and systematic support for the thesis that the PUA affects the debate about concepts of God, or other hypotheses concerning ultimate reality. Part three discusses the important differences between philosophy and theology. The first section of part three deals with the debate about concepts of God in philosophy of religion and the second section with the debate in theology.

The PUA in science

In the first part of the paper, I shall present the PUA in some detail, or what I take to be the core of the argument originally advanced by Stanford (2006). The PUA notably comes in two versions: the PUA formulated in terms of eliminative inferences and inferences to the best explanation.

Framing the PUA in terms of eliminative inferences

Here is how Stanford (2006, 29) formulates the PUA, although without an explicit conclusion:

> [M]y general argument can be put as follows. [1] Eliminative inferences are only reliable when we can be reasonably sure that we have considered all of the most likely, plausible, or reasonable alternatives before we proceed to eliminate all but one of them [...]. But the history of science shows that [2.2] we have repeatedly failed to conceive of (and therefore consider) alternatives to our best theories that were both well confirmed by the evidence available at the time and sufficiently plausible as to be later accepted by actual scientific communities. Even more briefly, the historical record suggests that [2.3] in science we are typically unable to exhaust the space of

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likely, plausible, or reasonable candidate theoretical explanations for a given set of phenomena before proceeding to eliminate all but a single contender, but this is just what would be required for such eliminative inferences to be reliable.

We can formalize the PUA as follows:

(1) Eliminative inferences are unreliable to establish the (probable or approximate) truth of (the central claims of) a theory if scientists and scientific communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-confirmed, and distinct alternative theories, on the basis of which they eliminate all but one theory.
(2) In fundamental theoretical science, scientists and scientific communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-confirmed, and distinct alternative theories.
(3) Therefore, in fundamental theoretical science, eliminative inferences are unreliable to establish the (probable or approximate) truth of (the central claims of) a theory.

Premise (2) is then supported by the following inductive argument, where premise (2.2) is taken to be supported by historical evidence:

(2.1) If in fundamental theoretical science scientists and scientific communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in the past, then, probably, they also fail to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in the present.
(2.2.) In fundamental theoretical science, scientists and scientific communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in the past.
(2.3) Therefore, probably, in fundamental theoretical science, scientists and scientific communities also fail to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in the present.

Let me start with premise (1). On a common view, an *eliminative inference* (EI) is an inference, from the premise that any other alternative can be eliminated, to the conclusion that the remaining candidate, theory, or hypothesis is true, or at least probably or approximately true. As detective Sherlock Holmes famously puts it, 'when you have eliminated the impossible, whatever remains, *however improbable*, must be the truth' (Doyle 1890, 93). But note that the point in the present context is not that any 'improbable' possibility is relevant, but only the 'serious' ones. Patrick Forber (2011, 186) explains that, according to the standard model in philosophy of science, EI is 'a two-step inferential pattern: (1) construct a space of possibilities and then (2) use observations [or evidence] to eliminate alternatives in that space. The goal [...] is theory choice: the process of elimination determines which hypothesis one should accept'. The elimination may proceed, according to Stanford (2006, 29), (2) by showing that all but one of the candidates are either (i) impossible or (ii) less likely. The main concern is whether or not (1) the possibility space is exhausted, or rather sufficiently exhausted, to conclude that the last remaining theory is probably true. For Stanford, the requirement is not that we must literally, or completely, exhaust the relevant possibility space, but rather that we must sufficiently exhaust, or come close enough to exhausting, the relevant possibility space so that we can safely, but at least probably, ignore what remains. For example, if 99 out of 100 serious theories have been conceived and considered, chances are high that the true theory is among them. The ideal here is not guarantee but reliability.[3]

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To make this clear, I speak of '(sufficiently) exhausted'. Having said that, Forber (2011, 189) goes on to observe: 'Failure to exhaust possibility space presents a problem for any account of theory choice, for the accuracy of such choices depends on the available options'. If the true theory is not among the theories considered, then the EI fails: 'an eliminative inferential procedure will only guide us to the truth about nature if the truth is among these competitors in the first place' (Stanford 2006, 28). In other words, if EIs are understood as inferences, from the premise that any other *considered* alternative can be eliminated, to the conclusion that the remaining hypothesis is (probably or approximately) true, then the considered relevant alternatives must at least come close to the total set of *conceivable* relevant alternatives in order to be reliable. EIs are reliable, then, only if we can be reasonably sure that we have conceived of and considered all, or at least the vast majority, of the relevant possibilities; they are reliable only if we can be reasonably sure that we have (sufficiently) exhausted the relevant possibility space.

The relevant possibility space is characterized by three qualifiers: the scientific theories in question have to be (1) serious, (2) well-confirmed, and (3) distinct.

Serious means that the theories are reasonable. The requirement is not to exhaust (sufficiently) the entire possibility space as such, but only the *reasonable* possibility space. As mentioned above, merely logically possible but nonsensical theories are to be excluded. To quote Stanford (2006, 29) again, the standard would be that the theories are 'sufficiently plausible as to be later accepted by actual scientific communities'. So, at least those theories are serious which were later accepted by the scientific community, and probably also those that were later seriously considered, even if eventually not accepted, by the scientific community.

Well-confirmed means that the theory is well-supported, or equally well-supported, by the *available* evidence. The PUA is not primarily about so-called empirical equivalents – that is, 'alternatives sharing *all and only* the same empirical implications' (Stanford 2006, 8). Rather, the main concern are empirically inequivalent theories constituting what Stanford (2006, 17) calls a '*transient* underdetermination predicament': 'if we believed that there are one or more alternatives that are not empirically equivalent to it but are nonetheless consistent with or even equally well confirmed by *all of the actual evidence we happen to have in hand at the moment*'. These empirically inequivalent theories might be later accepted or better confirmed on a different set of evidence. The PUA only takes full effect if such transient underdeterminations are *recurrent*: if 'there is (probably) at least one such alternative available (and thus this transient predicament rearises) *whenever* we must decide whether to believe a given theory on the strength of a given body of evidence' (Stanford 2006, 17). The argument, then, is that on this set of currently available evidence, some theories are equally well-confirmed. The question of whether the set of evidence is exhaustive is a different and distinct question to which we shall return.[4] As Stanford (2006, 23) puts it, 'the problem of unconceived alternatives worries that there are theories that we should and/or would take seriously as competitors to our best accounts of nature if we knew about them, and that could or have been distinguished from them evidentially, but that are excluded from competition only because we have not conceived of or considered them at all'.

Distinct means that the theories are genuine alternatives. Distinct theories differ to such an extent that one cannot reasonably assume a level of continuity sufficient to treat the 'new' theory simply as a development from the old one, or merely a different rendering of the same theory. What is at stake here is novelty.

Turning to premise (2), then, we should note that it is supported by the inductive argument outlined above: if (2.3) scientists and scientific communities probably fail to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in fundamental theoretical science in the present, then (2) they cannot be reasonably

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sure that they have (sufficiently) exhausted the space of serious, well-confirmed, and distinct alternative theories. The main support for this inductive argument is *historical*: there is convincing historical evidence showing that (2.2) in fundamental theoretical science, scientists and scientific communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in the past. Here is how Stanford (2019, 3915–3916) presents the verdict of his detailed historical analysis concerning fundamental theoretical science, dealing with the most remote and inaccessible aspects of nature:

> The historical record of scientific inquiry [...] offers abundant evidence of the repeated failure of scientists and scientific communities to even *conceive of* fundamentally distinct alternatives to extant theories that were nonetheless both scientifically serious and reasonably well-confirmed by the evidence available at the time.

If his historical analysis is fundamentally correct, then – given (2.1) – the conclusion (2.3) follows that, probably, in fundamental theoretical science, scientists and scientific communities also fail to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories in the present.

Apart from the importance of the historical evidence, which cannot be discussed here in any detail,[5] it is the major inductive premise (2.1) that carries weight: that if in fundamental theoretical science scientists and scientific communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories *in the past*, then, *probably*, they also fail to exhaust (sufficiently) the space of serious, well-confirmed, and distinct alternative theories *in the present*. Note that thus formulated, the PUA is not about the *theories* but about the *theorists* (Stanford 2006, 44–47). The critical question is not whether our current theories are better than past theories, but whether our current theorists are better, or in a better position, than past theorists. The inductive premise (2.1) is false if in the past scientists and scientific communities failed to exhaust (sufficiently) the relevant possibility space, but in the present scientists and scientific communities can and do in fact exhaust (sufficiently) the relevant possibility space. The discussion thus shifts from the question of the continuity or discontinuity of the theories to the question of the continuity or discontinuity of the theorists. Put differently, premise (2.1) holds as long as the cognitive capacity of the agents involved, either individually or collectively, is not substantially enhanced from the past to the present.[6] For this reason, premise (2.1) will receive support if, and to the extent to which, this failure to exhaust (sufficiently) the possibility space tells us something about us as cognitive agents, that is, about our cognitive limitations. The burden of proof for those objecting to the PUA would therefore be to show that 'we are now able to exhaust the spaces of theoretical alternatives from which contemporary accounts of nature are drawn, or at least come near enough that we can afford to ignore whatever theoretical options remain presently unexamined' (Stanford 2019, 3916).

One obvious objection states that although the cognitive capacity of individual scientists has not substantially changed, it is today's collective work, as a scientific community, that makes the difference. After carefully considering this objection, Stanford (2019, 3931) reaches the conclusion that contemporary scientists and especially scientific communities are no less vulnerable to the PUA than their historical predecessors: 'Today's scientific communities are almost certainly more effective vehicles for *testing, evaluating, and applying* theoretical conceptions of various parts of the natural world than were their historical predecessors, but I have argued that we have compelling reasons to believe that they are

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actually less effective than those same predecessors in conceiving, exploring, or developing fundamentally *novel* theoretical conceptions of nature in the first place'.

Framing the PUA in terms of inferences to the best explanation

Having considered the PUA framed in terms of EIs, I now turn to a slight complication due to a certain development in Stanford's account. Although the focus of Stanford (2006) was clearly EIs, he has since moved on to frame the PUA in terms of inferences to the best explanation. Contrary to previous statements, Stanford now seems to regard EI merely as a specific form of the broader category of inference to the best explanation.[7] Following Gilbert Harman (1965, 89), we can define *inference to the best explanation* (IBE) as an inference, 'from the premise that a given hypothesis would provide a "better" explanation for the evidence than would any other hypothesis, to the conclusion that the given hypothesis is [probably or approximately] true'.

Whatever their exact relation, what matters is that, similarly to EIs, a necessary success condition of IBEs is that the true hypothesis is among the *considered* hypotheses: IBEs are reliable to establish a given hypothesis as (probably or approximately) true only if the true hypothesis is among the hypotheses we are considering. And we can be reasonably sure that the true hypothesis is among the hypotheses we are considering only if we have (sufficiently) exhausted the possibility space of relevant alternatives in the first place. Like before, then, if IBEs are understood as inferences, from the premise that a given hypothesis would provide a 'better' explanation for the evidence than would any other *considered* hypothesis, to the conclusion that the given hypothesis is (probably or approximately) true, then the considered relevant hypotheses must at least come close to the total set of *conceivable* relevant alternatives in order to be reliable. For we can only *consider* those hypotheses that '*we have managed to come up with [or conceive of] so far*' (Stanford 2006, 31). If in the remaining possibility space there are relevant unconceived alternatives, then these will also be unconsidered. Therefore, the question arises again as to whether the space of relevant alternatives is sufficiently exhausted to conclude that the best hypothesis is (probably or approximately) true.

The reasoning process of the alternative rendering of the PUA in terms of IBEs is then as follows. If scientists and scientific communities fail to exhaust (sufficiently) the possibility space of serious, well-confirmed, and distinct alternative theories, then they cannot be reasonably sure that the (probably or approximately) true theory is among the possibilities they are considering. But IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) a theory if we cannot be reasonably sure that the (probably or approximately) true theory – or rather the truth of the central claims of that theory – is among the considered possibilities. The argument can be put as follows:

(1) IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) a theory if scientists and scientific communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-confirmed, and distinct alternative theories, on the basis of which they conclude that (the central claims of) the theory that provides the best explanation for the evidence are/is (probably or approximately) true.
(2) In fundamental theoretical science, scientists and scientific communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-confirmed, and distinct alternative theories.
(3) Therefore, in fundamental theoretical science, IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) a theory.

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Premise (2) is then inductively supported by the same historical argument outlined above.

Although it may lead to a difference in emphasis, I take it that it makes no substantial difference to the argument of this paper whether we formulate the PUA in terms of IBEs or EIs, so long as elimination can occur, as Stanford assumes, not only on the grounds of being entirely impossible but also on the grounds of being *less likely* – the assertion that one hypothesis provides a better explanation than any rival hypothesis sounds similar to the assertion that all rival hypotheses are less likely. Be that as it may, the chances of eliminating all alternative concepts of God – let alone all alternative hypotheses concerning ultimate reality – are slim, and more common is the claim that one concept of God – or one hypothesis concerning ultimate reality – provides the best explanation for the evidence in question. For this reason, I will from now on focus on IBEs. The point that matters is the same as in the detective case mentioned above, the inference is *relative to* the other considered alternatives: relative to the other suspects, the last remaining candidate or at least the candidate whose case provides the best explanation for the evidence appears to be the murderer. But the crucial question is not whether relative to a given set, someone appears to be the murderer, but whether they actually *are* the murderer. And for establishing this conclusion via IBEs or EIs one needs to be reasonably sure that one has (sufficiently) exhausted the relevant possibility space; that all the relevant candidates are among the considered suspects. Next, I will suggest that if IBEs and EIs are reliable only if we can be reasonably sure that we have (sufficiently) exhausted the relevant possibility space, then this also applies to the field of religion.

The PUA in religion

In the second part of this paper, I will move from the discussion of scientific theories in philosophy of science to a discussion of hypotheses concerning ultimate reality, with particular attention to the debate about so-called (alternative) concepts of God in philosophy of religion and theology. In doing so, I explicitly acknowledge the considerable differences between scientific, philosophical, and theological explanations. What I would like to point out instead is that, despite the important differences between scientific theories and concepts of God, or other hypotheses concerning ultimate reality, there may also be similarities in their vulnerability to the PUA.

For the purpose of this analysis, I follow conventional terminology and speak of 'concepts of God'. A few clarificatory notes are in order. I make use of the term 'God'; others prefer different categories, such as 'divinity', 'deity', or something 'ultimate'. I do not think much hinges on the terminological choice here. Similarly, I use the term 'concept' in the sense in which it is frequently used in the debate about 'concepts' and 'alternative concepts' of God: the God-concept. Others may prefer alternative renderings, such as 'conception', 'model', 'theory', or 'idea' of God. Jeanine Diller and Kasher (2013, 2) suggest what is meant here, fundamentally, are 'ways to conceive the nature of ultimate reality'. What matters for the discussion and its implications for theological realism is that at least the central claims of these concepts of God can be (at least approximately) true, that is, are truth-apt. What realist theists in the sense outlined above are interested in, and what realist atheists deny, is the truth of the belief that God exists and is accurately and adequately described and represented, even if only partially and imperfectly, by the concept in question.

What is more, although not the primary focus of this paper, I will at times contrast these concepts of God with other hypotheses concerning ultimate reality, including specifically atheistic ones, as a reminder that the relevant possibility space often extends beyond the various concepts of God. In doing so, I will use the admittedly clumsy phrase 'hypotheses concerning ultimate reality' as a broader category that encompasses not only concepts of God but also atheistic alternatives, or any other explanation of the given evidence that does

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not involve God. Thus, by 'ultimate reality' here I do not mean 'God' or any other equivalent. Rather, I intend to keep the possibility space as open as possible, without narrowing it to concepts of God alone.

As a starting point for exploring this alternative domain, we may take the observation that, on most accounts, God – or ultimate reality more generally – appears to be more metaphysically opaque or, to use Stanford's (2006, 32) phrase, more 'remote or inaccessible' (in the relevant sense) than any of the objects of the fundamental theoretical sciences: 'it is when we theorize about such [remote or inaccessible] matters [...] that we would seem to be in greatest danger of failing to conceive of serious alternative possibilities or even of what the space of such possibilities might look like'. It is precisely with regard to these 'inaccessible' domains that the PUA expresses concerns about the reliability of IBEs or EIs; the PUA 'counsels skepticism about all and only claims arrived at or justified eliminatively *when we have good reason to doubt that we can exhaust the space of plausible alternative possibilities*' (Stanford 2006, 37). The question, in other words, is whether we are using perfectly legitimate inferential tools outside their 'domain of reliable application' (Stanford 2006, 32)?

If the domain or epistemic context of our analysis changes – from an analysis of scientific theories in theoretical science to an analysis of concepts of God, or other hypotheses concerning ultimate reality, in philosophy of religion and theology – we need a formulation of the PUA that is relevant, if at all, to this new domain or epistemic context. If a success condition of IBEs and EIs is to exhaust (sufficiently) the relevant possibility space, two questions emerge in the context of religion: (1) what is the *relevant* possibility space and (2) how do we know whether or not we have (sufficiently) exhausted it? I will discuss them in turn.

What is the relevant possibility space?

Let us begin by considering a prominent example from the philosophy of religion. Here is how John Bishop (1998, 187, my emphasis) famously sets out the quest for 'alternative concepts of God':

> (i) to specify a candidate *alternative* concept of God,
> (ii) establish that it meets the *religious adequacy* criteria for [...] realist theism, and
> (iii) argue that it is *reasonable to believe* that that concept is instantiated.

In step one, then, philosophers start to survey the possibility space of *alternative* concepts of God. They then propose a particular concept of God 'alternative' to what they consider to be the default position. Put differently, to constitute an alternative the proposed concept of God must be *distinct*. In step two, they go on showing that the concept of God is an adequate alternative concept *of God*. However exactly religious adequacy is spelled out, any 'adequate' alternative concept of God must meet certain criteria in order to be acceptable to a religious community. As Bishop (1998, 174, my emphasis) puts it, the 'belief in the existence of a God of the kind the concept specifies must be religiously adequate *to the theistic religious tradition*, in the sense that it could count at least as one viable expression of that historical tradition'. In our terminology, the candidate must be *serious*. In step three, philosophers are required to show that reality has in fact those features that make the concept of God religiously adequate. In our terminology, the proposal must be *well-confirmed* by the evidence.

Note that when the matter is framed this way, as we shall have occasion to explore in more detail below, the 'reasonable-to-believe' requirement must be met *relative to* not only the default position but also in fact all the other conceivable alternative hypotheses about God, as well as any other relevant hypothesis concerning ultimate reality, including atheistic ones. As Bishop (1998, 186) acknowledges, 'to make a case for preferring realist theism

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[about one's specified alternative concept of God] to its rivals (namely, anti-realist theism and outright atheism), one would need arguments for the claim' that reality is this way. To phrase it in terms of an IBE: alternative-God theorists infer, from the premise that their proposed concept of God provides a better explanation for the evidence than would any other hypothesis concerning ultimate reality, including not only all relevant (realist) theist but also (realist) atheist hypotheses, to the conclusion that (the central claims of) their concept of God are (probably or approximately) true.

This prominent example suggests that at least some contemporary philosophers of religion regard the cases of scientific theories in theoretical science and concepts of God in philosophy of religion or theology as sufficiently similar to warrant characterizing the relevant possibility space using essentially the same three qualifications as before – albeit under different names and in a different order. That is, 'relevant' alternative hypotheses concerning ultimate reality, particularly concepts of God, must be (1) distinct, (2) serious, and (3) well-confirmed. Moreover, the example underscores that the relevant possibility space includes not only alternative concepts of God but also various atheistic hypotheses concerning ultimate reality. Theological realism, as employed here, accommodates both realist theism and realist atheism. In light of this, let us consider each of these characteristics in turn.

Distinctness

As in the case of scientific theories, the first qualifier, 'distinct', would in this context signify genuine *novelty*. A hypothesis concerning ultimate reality – whether theist or atheist – must not simply be a somewhat different rendering of the same basic idea. When applied to alternative concepts of God, this means that the concepts must not be reducible to, or simply supplementing, one other. For then the given concept of God would not really be a genuine alternative.

Here, a first difficulty may arise. One initial strategy for addressing the PUA would be to argue that there is only a very limited number of hypotheses concerning ultimate reality. On this view, most 'alternative' concepts of God are in fact not distinct in the relevant sense – they all eventually boil down to the same few basic positions.[8] The argument could be stated thus:

(1) There is only a limited number of basic positions about ultimate reality.
(2) No variation of a basic position about ultimate reality constitutes a distinct hypothesis concerning ultimate reality or concept of God.
(3) Therefore, there is only a limited number of distinct hypotheses concerning ultimate reality or concepts of God.

The attempt to limit the number of basic positions about ultimate reality is not new. In their classic *Philosophers Speak of God*, Charles Hartshorne and William Reese (1953, vii) claimed to present nothing less than 'the totality of views among which [...] anyone seeking a philosophical solution of the religious problem must decide'. Yet, despite repeated attempts to capture at least the basic positions about ultimate reality, there is still no consensus as to what these basic positions actually are. Moreover, it remains contentious in the current debate how many of the conceivable basic positions we have managed to conceive and consider so far. Still, for the sake of the argument, let us consider Yujin Nagasawa's (2024, 56–60) recent taxonomy, which categorizes the basic positions about ultimate reality in terms of their implied God–world relationship – abstracting from various questions, such as the number of gods, others would regard as essential for the basic positions:

(1) *Acosmism*: God exists but the world does not exist

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(2) *Traditional theism*: God and world are ontologically distinct; God is ontologically prior to the world
(3) *Pantheism*: God and world are identical
(4) *Panentheism*: The world exists within, or is a proper part of, God
(5) *Merotheism*: God exists within, or is a proper part of, the world
(6) *Axiarchism*: The world exists because an ethical requirement necessitates its existence
(7) *Atheism*: The world exists but God does not exist

To make the argument work – that none of the variations within a basic position, such as (2) 'traditional theism', are distinct – one would need to demonstrate that all variations – such as deism vs theism, personal vs a-personal theism, classical vs open theism, etc., for position (2) – are different renderings of the same basic idea that do not distinguish themselves in any relevant way. By implication, then, the quest for *alternative* concepts of God is doomed from the start – unless new basic positions were introduced, no concept of God would be 'alternative' because none of the variations would be distinct. But this is highly counter-intuitive. Why, for example, should a concept of God according to which God is a simple, immutable, eternal, and omniscient person be considered the same as, or not distinct from, a concept of God according to which God is neither a person nor simple, immutable, eternal, or omniscient, simply because both conceptions maintain that God and the world are ontologically distinct, and that God is ontologically prior to the world – or whatever other criteria one might specify for belonging to that basic position? To make this claim, one would have to abstract away from most of the relevant content of the various concepts of God, including what are arguably their defining features, such as God being Trinitarian for the God of Christianity. According to this logic, the concepts of most religions, except perhaps polytheistic ones, would basically be the same, or at least boil down to a few – all different renderings of the same basic idea(s) – and most content-related disagreements would be superficial at best – a conclusion many would find implausible. In any case, per the objection, there would be no novelty in religious matters or developments. Thus, regardless of what conclusion one reaches about premise (1) – and many would be far more sceptical about our ability to settle that case – premise (2) is far from compelling.

Seriousness

Not entirely unlike in the case of scientific theories, the second qualifier, 'serious', would basically mean that the concepts of God, or other hypotheses concerning ultimate reality, are philosophically or theologically *reasonable*, in the sense that they would be sufficiently plausible to be genuinely considered or even accepted by religious believers and communities – or, in the case of other, especially atheistic, hypotheses concerning ultimate reality, by serious enquirers and other relevant (non-believing) communities.[9] When it comes to alternative concepts of God, frequently cited criteria include philosophical coherence or religious adequacy, where the latter is often understood in the literature to include, most prominently, the criterion of being worthy of worship.

At this point, a second difficulty presents itself. Whereas many cases in science typically involve only one relevant scientific community at a time, in religion, we most frequently have a multiplicity of religious communities as well as non-believing or otherwise enquiring communities coexisting, with different and sometimes conflicting assessments of what counts as serious. In other words, if 'serious' implies that the hypothesis is sufficiently plausible to be accepted, or at least seriously entertained, by (later) communities, would this not require a single community as arbiter? I think here the situation might be different in science and religion, but the same rationale applies. A concept of God that is not recognizable as a concept *of God*, but is simply a concept of something else, would not be

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acceptable to a certain religious tradition, though the same hypothesis might be acceptable to another tradition or community. What matters is that some concepts of God, once considered, attract sincere believers, while others do not. Similarly, there are hypotheses concerning ultimate reality that, once considered, attract sincere enquirers to accept them as part of their worldview, while others fail to gain any such traction. And those hypotheses that lack any plausibility or traction can be reasonably set aside from the outset as irrelevant. Otherwise, we would have to engage with every logically possible but nonsensical hypothesis. In any case, what makes any of the remaining concepts of God, or other hypotheses concerning ultimate reality, 'reasonable to believe' is the third requirement, as Bishop's outline above makes clear.

Well-supportedness

Concerning the third qualifier, 'well-confirmed (by the evidence)', we face yet another difficulty. How can hypotheses concerning ultimate reality, including concepts of God, be confirmed by evidence? What sort of confirmation could they receive? And what would the relevant evidence supporting them be in the first place? While some scholars explicitly endorse such evidential and confirmation-based approaches, others are sceptical.[10] Indeed, there is arguably no common consensus on either (a) what the relevant set of *evidence* is or (b) what *confirmation* could mean in this context.

Turning to the evidence first, some might suggest that all religions explain the same set of evidence or data, namely, the human condition. For example, Keith Yandell (2016, 11) writes: 'A religion proposes a *diagnosis* (an account of what it takes to be the basic problem facing human beings) and a *cure* (a way of permanently and desirably solving that problem): one basic problem shared by every human person and one fundamental solution that, however adapted to different cultures and cases, is essentially the same across the board'. Others might emphasize that the evidence or data is rather different, for example, by highlighting the importance of unrepeatable historical events, specific revelations, and personal religious experience. If the evidential basis is different, however, different concepts of God, or other hypotheses concerning ultimate reality, could be supported.

As mentioned above, however, the PUA is not primarily about empirical equivalents but empirically inequivalent hypotheses, the latter of which can be differentially confirmed by evidence. Different evidence might support different hypotheses. The evaluation of hypotheses is thus *time-* and *context-sensitive*; it is always carried out relative to the relevant evidence *available* at the time, as *recognized* by the current scientific community. If the available evidence changes, then so might the confirmed hypotheses. Likewise, if new evidence is recognized by the current scientific community, then the confirmed hypotheses might change. A similar line of reasoning might apply in the case of religion. Even if there is no trans-historical and cross-cultural or cross-religious consensus on the relevant evidence, this does not imply that within a tradition, community, or debate at a time no relative body of evidence is available and recognized. In other words, even if there is no common consensus on the relevant evidence across different traditions, communities, or debates, perhaps there are at least partial and relative consensuses within some traditions, communities, or debates, and some of these partial and relative consensuses may be important for broader conversations between and across them.[11]

For a comparative analysis, we would thus first need to establish some common ground. Only when there is a partial and relative consensus between the dialogue partners can we start the broader conversation about what counts as relevant evidence beyond these limited domains and contexts. Having an absolute consensus shared by all parties concerned with concepts of God, or other hypotheses concerning ultimate reality, on what counts as relevant evidence and what this set of evidence will look like is not only highly unlikely

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but perhaps also not necessary to at least begin evaluating them. Such an approach, however, poses also a certain danger. If the mutually recognized evidence is not representative of the total evidence, then it may be that the considered evidence supports a concept of God, or another hypothesis concerning ultimate reality, but the total evidence does not. Therefore, the conclusion must be qualified and restricted: relative to this set of evidence, one concept of God, or some other hypothesis concerning ultimate reality, appears to be more plausible than others. So, the question of how much of the total evidence is available to, and recognized by, us is important.

What is more, the evidence in question in religion is in most cases not limited to empirical evidence, let alone repeatable empirical evidence, but often includes a variety of different kinds of 'evidence', including singular and unrepeatable historical events, personal (religious) experiences or practices, revelatory data, including authoritative texts and tradition, philosophical arguments, and much more. As William Alston (1999, 241) observes, outside but not within the religious sphere, '[i]t is very unusual for a belief or set of beliefs to be such that authoritative texts, a tradition, supernatural explanations of natural phenomena, metaphysical argumentation, secular history, and nonsensory direct experience are all relevant to their epistemic evaluation'. So, if we speak of evidence, it must be in this very broad sense of there being some ground.

I will turn to confirmation, then. A confirmation of concepts of God, or many other hypotheses concerning ultimate reality, in the sense of a falsification, let alone a verification, is probably extremely difficult, if not impossible, to achieve. But if we take 'confirmation' in a broader sense, including various inductive methods of confirmation, then IBEs or EIs, among other methods, count as confirmation. As Vincenzo Crupi (2021) observes: 'In contemporary philosophy, *confirmation theory* can be roughly described as the area where efforts have been made to take up the challenge of defining plausible models of non-deductive reasoning. Its central technical term – *confirmation* – has often been used more or less interchangeably with "evidential support", "inductive strength", and the like'. In this sense, Bayesian confirmation theory has frequently been employed in contemporary philosophy of religion. It should be noted in this context, however, that Bayesian confirmation theory is vulnerable to the PUA as well. As Stanford (2006, 41) points out, it is in no better position than IBEs or EIs: 'The leading general approach to theoretical confirmation in the contemporary philosophy of science, *Bayesian confirmation theory*, occupies a similar position'. In any case, in this wider sense, a concept of God could be said to be well-confirmed, for example, if it is a better explanation for the evidence than any other alternative hypothesis; or if all the other hypotheses can be eliminated as impossible or less likely.

In order to emphasize this broad sense of confirmation, and to avoid a narrow focus on (specific forms of) evidence, perhaps a better way of putting it is to say that some epistemic sources *support* rather than confirm a concept of God. To avoid misunderstandings, in what follows I shall speak of concepts of God being *well-supported*, at times deliberately leaving the specific source of support unspecified, instead of well-confirmed by the evidence.

Reformulating the PUA

In light of this discussion, the relevant possibility space may be understood as the possibility space of *relevant alternative* hypotheses concerning ultimate reality, including in particular various concepts of God, and these relevant alternatives can be characterized as *serious, well-supported, and distinct*. Although the focus of the discussion shall remain on concepts of God, it is worth reiterating that the underlying point appears to apply more broadly to all hypotheses concerning ultimate reality, including even atheistic ones, provided such hypotheses are taken to affirm anything as (probably or approximately) true about ultimate reality. The PUA could thus be restated in a general form:

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1* 1 IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) any hypothesis concerning ultimate reality if we cannot be reasonably sure that we have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative hypotheses concerning ultimate reality, on the basis of which we conclude that (the central claims of) the hypothesis that provides the best explanation for the evidence are/is (probably or approximately) true.
1* 2 We cannot be reasonably sure that we have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative hypotheses concerning ultimate reality.[12]
1* 3 Therefore, IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) any hypothesis concerning ultimate reality.

As applied to concepts of God, and in order to keep the close parallelism with the formalization of the PUA in fundamental theoretical science, the PUA can be specified as follows:[13]

(1) IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) a concept of God if philosophers (of religion) or theologians and religious communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative concepts of God, on the basis of which they conclude that (the central claims of) the concept of God that provides the best explanation for the evidence are/is (probably or approximately) true.
(2) In philosophy of religion or (revealed) theology, philosophers (of religion) or theologians and religious communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative concepts of God.
(3) Therefore, in philosophy of religion or (revealed) theology, IBEs are unreliable to establish the (probable or approximate) truth of (the central claims of) a concept of God.

The inductive argument in support of premise (2) would then be:

(2.1) If in philosophy of religion or (revealed) theology philosophers (of religion) or theologians and religious communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God in the past, then, probably, they also fail to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God in the present.
(2.2) In philosophy of religion or (revealed) theology, philosophers (of religion) or theologians and religious communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God in the past.
(2.3) Therefore, probably, in philosophy of religion or (revealed) theology, philosophers (of religion) or theologians and religious communities also fail to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God in the present.

As Stanford (2006, 32) observes, however, in the most difficult cases, as cited above, we frequently fail not only to conceive of relevant alternatives but also of 'what the space of such possibilities might look like'. In fact, this is what I shall turn to and suggest next.

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Are we able to exhaust the relevant possibility space?

Turning to the second question – namely, how do we know whether or not we have (sufficiently) exhausted the relevant possibility space – there are arguably two dimensions to this question: one diachronic and one synchronic. What does the *past* number of overturned concepts of God, or other hypotheses concerning ultimate reality, tell us about our ability to exhaust (sufficiently) the relevant possibility space? And what does the *present* number of alternative concepts of God, or other hypotheses concerning ultimate reality, on the religious (or atheistic) market tell us about our cognitive ability to conceptualize God, or ultimate reality?

The diachronic challenge

The first strategy to show that, probably, we are currently unable to exhaust (sufficiently) the relevant possibility space is by reference to the past. It is the new induction. As we have seen above, premise (2) of the PUA is supported by an inductive argument based on historical evidence. Stanford's argument concerning the theoretical sciences is that scientists and scientific communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-confirmed, and distinct alternative theories because history shows that they have repeatedly failed to do so. To quote Stanford (2019, 3915–3916) again:

> The historical record of scientific inquiry [...] offers abundant evidence of the repeated failure of scientists and scientific communities to even *conceive of* fundamentally distinct alternatives to extant theories that were nonetheless both scientifically serious and reasonably well-confirmed by the evidence available at the time.

In the context of a religious enquiry, especially a religious enquiry into concepts of God, we may likewise ask:

> Is there an historical record of *religious* enquiry that offers abundant evidence of the repeated failure of *philosophers (of religion) or theologians* and *religious* communities to even conceive of fundamentally distinct alternatives to extant *concepts of God, or other hypotheses concerning ultimate reality*, that were nonetheless both *philosophically or theologically* serious and reasonably well-*supported* by the 'evidence' *(or other epistemic sources)* available at the time?

If there is a vast number of past religions with their respective concepts of God, or of other overturned hypotheses concerning ultimate reality, and they thought that their view is correct, then what does this tell us about our current epistemic situation? If past concepts of God, or other hypotheses concerning ultimate reality, held to be true turned out to be false or unacceptable today, then what does this tell us about the truth of those concepts of God, or other hypotheses concerning ultimate reality, with which we replaced them?

Let me thus turn to the historical evidence in support of premise (2.2): whether there is convincing historical evidence that philosophers (of religion) or theologians and religious communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God – or other hypotheses concerning ultimate reality – in the past. Without going into much detail, I would like to highlight that there is at least some initial historical evidence that they have in fact failed – perhaps even repeatedly so – to exhaust (sufficiently) the relevant possibility space.

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The history of religion shows that a large number of religions with their respective concepts of God have been overturned and replaced by others. As Bruno Niederbacher (2025) observes: 'There are replacements of religions over time: the Egyptian religions, the ancient Greek religions, the Roman religions, Judaism, Christianity and Islam, some of which grew out of and superseded others'. The fact that alternatives were later accepted by a religious community indicates that the concept of God is a *serious* one. For example, ancient Israel turned from monolatrism to monotheism. At some point, they came to the realization that the God of Israel is not simply the only God they worship among other gods, which would still be a form of polytheism, but that he is in fact the only God. What is more, this replacement of polytheism by monotheism has had a global impact; at least in the West, monotheism has since become a pervasive phenomenon. There is little return from monotheism to polytheism, although certain forms of polytheism may still exist today – for example, the case of Hinduism is notoriously difficult to classify. Moreover, many of these concepts of God are *distinct* in the sense that they are novel and not a different rendering of the same idea, as suggested above. For example, monotheism and polytheism are clearly distinct concepts of God: there is either one God or many gods, but both cannot be true at the same time (although both can be false). Most importantly, however, in not a few cases it took a long and at times collective effort to even *conceive of* these alternatives. And at least some of these *unconceived* alternative concepts of God appeared to be *well-supported* at the time – although, admittedly, some, especially revelation-based, concepts of God may depend on revelations, historical events, or personal experiences not available at the time. Furthermore, the fact that a considerable number of these basic concepts of God, and especially a vast variety of theistic conceptions, is still seriously discussed, considered, and entertained today would *prima facie* further bolster the claim that they were well-supported. If this analysis is fundamentally correct, then there is at least some historical evidence of a past failure to exhaust (sufficiently) the relevant possibility space worth considering in more detail. The question, then, is how frequent this occurred and so whether the transient underdetermination predicament is recurrent.

I would now like to explore the possibility that this transient underdetermination predicament is in fact recurrent, if not at the level of abstract concepts of God, then at least at the level of the detailed content of these concepts: that 'there is (probably) at least one such alternative available (and thus this transient predicament rearises) *whenever* we must decide whether to believe a given [hypothesis] on the strength of a given body of evidence' (Stanford 2006, 17).

On a very general and abstract level, as mentioned above, some may perhaps claim that all serious concepts of God have been, if not considered, then at least conceived. All basic options are on the table, so the argument goes. We only need to consider them, by collectively putting our heads together. Or, alternatively, if we were to work together globally and collectively, like scientists do, then we would be able to conceive of all relevant concepts of God, thus preparing the ground for a reliable evaluation. But if the exhaustive list of concepts of God is something like 'either ultimism or not ultimism', then the analysis is rather artificial and unhelpful, like the claim 'either general relativity or not general relativity'. Perhaps we could also come up with a more detailed list, ranging, say, from polytheism to monotheism to atheism – to name just a few options along the spectrum – similar to the taxonomies attempted by Nagasawa and others. And we may further try to exhaust (sufficiently) each of these categories by exploring their sub-categories, such as classical theism, open theism, process theism, developmental theism, and so on, for monotheism. And these may in turn come in the form of personal or non-personal theism. And further categories will emerge. The list will quickly become exuberant. Indeed, recent decades have witnessed a proliferation of such 'alternative' concepts of God and there is yet no end in sight.[14]

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But it is not only the question of being able to exhaust (sufficiently) the basic positions that matters. The real difficulty starts when relevant *content* is added. The more substantial content is added to each position, the more each position is fleshed out materially, the more disagreement will emerge, and the less clear it is how to exhaust (sufficiently) the relevant possibility space. To stay with the above example, the very concept of (mono-)theism is arguably an abstraction. Most believers would not consider themselves theists but, say, Jews, Christians, or Muslims. And in fact, many may consider them, say, Hasidic Jews, Catholics, or Sunnis. So, it is not only the religion that makes a difference, but also the denominations, some of which are clearly incompatible with each other. On the doctrinal level, for example, one might agree that Christ is the defining feature of Christianity but disagree on Christological interpretations. Similarly, the Trinity is specific to Christianity, a doctrinal feature not found in the other Abrahamic monotheistic traditions. But again, there is more than one interpretation of the Trinity. Even within a single tradition that sets clear boundaries of orthodoxy and heresy, like the Catholic tradition, the possibility space of orthodoxy is considerable. Dogmas are in a sense like crash barriers, leaving often considerable space on the road of orthodoxy. So even if on the general level we might be able to exhaust (sufficiently) the possibility space of relevant alternative concepts of God, when it comes to the particulars, the details, the various doctrines, things start to look very different.

Turning from philosophy to (revealed) theology, then, as far as purported *revelations* are concerned, the historical picture seem to be quite different. There are arguably only very few public (as opposed to private) revelations, at least those revelations constituting stable revealed religions. And even for the few distinct revealed religions, it is an open question whether the constituting revelation itself is always distinct. For example, Christians would typically claim that the divine self-revelation in Jesus Christ is the same revelation as, and in fact the culmination of, the revelation of the God of Abraham, Isaac, and Jacob. The Bahá'í faith, to give a further example, even goes so far as to claim that several revealed world religions are in fact different stages of one religion and a progressive divine revelation. Be that as it may, the number of major (public) revelations constituting stable revealed religions seems to be fairly limited.

One might object, however, that the relevant question is not the number of distinct revelations but of the *interpretations* of revelation and thus the question of doctrinal disagreement or development. And here, when the content is at its fullest, as we have seen above, the verdict seems to be worse than with those philosophers of religion concerned with more or less abstract concepts of God.

But is this analysis not susceptible to the 'that was then, this is now' strategy? Perhaps today we are in a position to exhaust (sufficiently) the relevant possibility space. Given the long history of religion, one might argue, at least the basic concepts of God – and other hypotheses concerning ultimate reality – must be on the table by now. But recall that the new induction is not about theories but theorists. This strategy would, then, presuppose that current theorists – be it philosophers (of religion) or theologians and religious communities or any other enquirers – are in a better position than their predecessors; that our human cognitive capacity is substantially different from theirs. Is this the case?

The synchronic challenge

The plurality of religions and concepts of God is, however, not only a diachronic phenomenon but also a synchronic one. One notable difference between scientific theories and concepts of God is that replaced or superseded concepts of God are generally not 'disconfirmed'; often, we do not know for a fact that they are false. And so, some of the basic concepts of God may pop up again, perhaps rendered slightly differently, at a later point. Moreover, there are relatively stable religious traditions that have survived without

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overthrowing their fundamentals for hundreds of years. And we see many of these religious traditions coexist. This leads to the related, but distinct, problem of religious pluralism: 'The plurality of religious traditions, and the attending fact of conflicting religious beliefs among traditions, seems to undermine the epistemic standing of religious belief in general, including one's own' (Greco 2017, 25). The problem of religious pluralism and the PUA differ, however, in that the former is concerned with the fact that contrary systems of belief cannot be true at the same time (although they can be false at the same time), but the latter is about establishing a system of belief, especially the central claims of a concept of God in the present instance, in the first place. Put simply, the problem of religious pluralism is about the result or conclusion, the PUA about the method of establishing the conclusion.

The main challenge that arises from the present plurality of concepts of God, or other hypotheses concerning ultimate reality, is this. The synchronic situation raises concerns to the extent to which we observe that specific serious, well-supported, and distinct concepts of God, or other such hypotheses concerning ultimate reality, emerged in *different* – that is, only in some but not in other – religious or other traditions. One possible explanation for such cases is that these traditions draw on a different set of evidence. For instance, the evidential basis for belief in a Trinitarian God might be unique to only one religious revelatory tradition. But this explanation, as I have noted, gives rise to a worry with all its ramifications discussed above, namely, that the available evidence in at least some traditions would seem to be not representative of the total evidence. Another explanation for such phenomena may lie in our limited ability to explore, or inability (sufficiently) to exhaust, the relevant possibility space. If we were good at (sufficiently) exhausting the relevant possibility space, we would expect most serious enquirers and religious communities at any given time to have conceived of and considered similar concepts of God, or other hypotheses concerning ultimate reality, even if their final evaluation differed somewhat. As Stanford (forthcoming) observes: 'if groups of humans were good at exhausting the space of serious theological possibilities, we would expect to see the same set or highly overlapping sets of conceptions of God or the divine arise in each of these theological traditions (because each would be fully or nearly exhausting the same range of serious or well-supported possibilities)'. The fact that many traditions appear to have conceived of and considered only a fraction of the globally available options at any moment in time could, thus, in line with the diachronic challenge, be indicative of a more fundamental human limitation in conceiving alternative hypotheses concerning ultimate reality.

There are, then, potentially two reasons to take the PUA in religion seriously. First, diachronically, if there is a repeated emergence of novel concepts of God, or other hypotheses concerning ultimate reality, that are seriously considered by at least certain communities or within some traditions. Second, synchronically, if many serious, well-supported, and distinct concepts of God, or other such hypotheses concerning ultimate reality, are unique to specific traditions, but do not feature in others. Conversely, what would count against the PUA constituting a problem in religion would be if, diachronically, no or very few novel concepts of God, or other hypotheses concerning ultimate reality, emerged over time, and synchronically, most religious or other communities or traditions independently arrived at similar concepts of God, or other hypotheses concerning ultimate reality.

In this section, I have suggested that there is at least *some* initial – albeit inconclusive – historical evidence of our repeated failure (sufficiently) to exhaust the relevant possibility space of concepts of God, or other hypotheses concerning ultimate reality. Answering the question of whether this evidence is *sufficient* to conclude that IBEs or EIs are unreliable in this context would, however, require a much more detailed historical analysis. I have also noted a second reason to suspect that the historical record tells us something about our limited ability, or inability, to exhaust (sufficiently) the relevant possibility space. However

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strong the diachronic and synchronic challenges are, both individually and together, they point toward a more direct way to show that, at least as far as concepts of God and other hypotheses concerning ultimate reality are concerned, there seems *prima facie* to be a PUA in religion – namely, showing that at least currently, we are unable to exhaust (sufficiently) the relevant possibility space.

A limited human cognitive capacity?

If philosophers (of religion) or theologians and religious communities have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God – or other hypotheses concerning ultimate reality – in the past, then, probably, they also fail to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God – or other hypotheses concerning ultimate reality – in the present. Unless, that is, they are now, individually or collectively, in a much better cognitive position to do this than any of their predecessors. So, as in the case of science above, the question ultimately depends on our human cognitive capacities to exhaust (sufficiently) the relevant possibility space. But while few would suppose that humans are fundamentally limited in their scientific pursuit, the assumption that humans are fundamentally limited in their understanding of God – or ultimate reality more generally – is a widespread traditional belief.

I would, therefore, like to turn from premise (2.2) directly to premise (2), for there might be other reasons to hold that in philosophy of religion and revealed theology, respectively, philosophers (of religion) or theologians and religious communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative concepts of God – or other hypotheses concerning ultimate reality.

If we assume that human beings are cognitively limited in conceiving God, or ultimate reality, and thus in (sufficiently) exhausting the possibility space of relevant alternative concepts of God, or other hypotheses concerning ultimate reality – that is, if they do not have the rational capacity to do so – then premise (2) is true, or at least receives strong support, irrespective of the particular historical evidence. If humans are *unable* to exhaust (sufficiently) the possibility space of relevant concepts of God, or other hypotheses concerning ultimate reality, then we cannot be reasonably sure that we have (sufficiently) exhausted that relevant possibility space. Some would take this cognitive inability to be a permanent part of human nature – humans are, by nature, unable to exhaust (sufficiently) the possibility space of relevant concepts of God, or other hypotheses concerning ultimate reality. Others would see it specifically as part of fallen human nature. Still others might, following J. L. Schellenberg's (2013) line of reasoning, regard it as possibly temporary feature, due to our early developmental stage – at least in our present developmental stage, humans are unable to do so. All would agree, however, that at least currently, and so long as our cognitive capacities would not enhance significantly, we are unable to exhaust (sufficiently) the relevant possibility space. Hence, we are facing the PUA.

Here are a few reasons one might hold this assumption. If God is the *ground of being*, then it is *prima facie* reasonable to assume that the ground of being is more metaphysically opaque, or more remote and inaccessible, than the most metaphysically opaque, or most remote and inaccessible, parts of being.[15] But history shows that we have repeatedly failed to exhaust (sufficiently) the space of relevant scientific theories about the most metaphysically opaque, or most remote and inaccessible, parts of being. Therefore, for at least as long as we are unable to exhaust (sufficiently) the relevant possibility space of conceptualizing the most metaphysically opaque, or most remote and inaccessible, parts of being, we will also be unable to exhaust (sufficiently) the relevant possibility space of conceptualizing God as the ground of being.

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Likewise, if we struggle to exhaust (sufficiently) the relevant possibility space concerning *penultimate reality*, how could we be confident that we can do so concerning *ultimate reality*? It is, after all, *prima facie* reasonable to assume that ultimate reality is more metaphysically opaque, or more remote and inaccessible, than the most metaphysically opaque, or most remote and inaccessible, parts of (penultimate) reality. But history shows that we have repeatedly failed to exhaust (sufficiently) the space of relevant scientific theories about the most metaphysically opaque, or most remote and inaccessible, parts of (penultimate) reality. Therefore, for at least as long as we are unable to exhaust (sufficiently) the relevant possibility space of conceptualizing penultimate reality, we will also be unable to exhaust (sufficiently) the relevant possibility space of conceptualizing ultimate reality.

Moreover, if one holds God to be *infinite* but human beings and their cognitive capacities to be finite, then it is *prima facie* reasonable to assume that a finite mind cannot (sufficiently) exhaust the possibility space of an infinite being. One could reply that we do not need to exhaust (sufficiently) the possibility space of God, but only the possibility space of conceptualizing God, which might, so the argument goes, be finite even if God is infinite. But how can we be reasonably sure that there is only a limited number of ways of conceiving and conceptualizing an infinite God? The burden of proof would be to show that finite cognitive agents can reasonably assume that the (probable or approximate) truth is among the limited possibilities they are able to conceive, conceptualize, and consider.

Furthermore, if one holds that, for humans, God is *incomprehensible* – where 'comprehend' is taken to mean to know something insofar as it is knowable – then human beings cannot know God as he is knowable in himself. So, if we know God, we know him only in a limited way. But if we know him only in a limited way, then how can we be reasonably sure that we have (sufficiently) exhausted the relevant possibility space of conceptualizing him? How can we know that the truth is among the concepts we are considering? Now one might object that the question is not the extent to which we can know God, but the extent to which we can (sufficiently) exhaust the relevant possibility space of conceptualizing God. Put differently, the concern is not how much we know the truth, but that we know the truth. But if we can name and conceptualize something only insofar as we cognize and know it, as for example Aquinas assumed,[16] then God's incomprehensibility will imply that we are unable (sufficiently) to exhaust the relevant possibility space of conceptualizing God. On this account, our concepts of God do not entail comprehension of God.[17] To put it with Augustine: *si enim comprehendis, non est Deus* (*Sermo* 117.5; PL 38, 663).

Furthermore, if human beings have a *mediocre status* in what philosophers have called the 'chain of being',[18] it seems *prima facie* reasonable to assume that our cognitive capacity is mediocre too – we may have higher cognitive capacities than other animals but lower cognitive capacities than, say, immaterial beings, such as angels have traditionally been conceived. But if our cognitive capacity is mediocre, how can we be reasonably sure that we are able (sufficiently) to exhaust the relevant possibility space of concepts of God or other hypotheses concerning ultimate reality? If one takes the idea of a chain of being to be outmoded, one can also phrase the point in *evolutionary* terms. If human beings have evolved, then why should the cognitive capacity to exhaust (sufficiently) the possibility space of relevant alternative concepts of God or other hypotheses concerning ultimate reality be an adaptive trait? What would the evolutionary advantage of such a trait be? And how can we be reasonably sure that we have developed this feature?

In addition to philosophical reasons, there may also be *theological* reasons for the claim that our human cognitive capacity is limited in the relevant sense. For example, Christians commonly believe that the Fall affected our human cognitive capacities. Some hold that these capacities were corrupted, others that they were merely wounded, or that human

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beings were stripped of their supernatural, or preternatural, gifts. The cognitive limitation resulting from the Fall may therefore further limit, or severely limit, the natural human ability to conceive of God and exhaust (sufficiently) the relevant possibility space. Even if it were possible to exhaust (sufficiently) the relevant possibility space of alternative concepts of God in the pre-lapsarian state, so the argument goes, humans would be unable to achieve this in the post-lapsarian state.[19]

These are just a few reasons why one might hold that, at least naturally, that is, without any divine aid, human beings are unable to exhaust (sufficiently) the possibility space of serious, well-supported, and distinct alternative concepts of God – or other hypotheses concerning ultimate reality. If any of the outlined arguments, or any other argument to the same effect, works, then, unlike in the case of science, premise (2) is directly supported, not just indirectly and inductively: we cannot be reasonably sure that we have (sufficiently) exhausted the possibility space of relevant alternative concepts of God – or other hypotheses concerning ultimate reality.

Is the parallel between scientific theories and concepts of God – or other hypotheses concerning ultimate reality – then close enough to warrant the conclusion that we are using 'a perfectly legitimate inferential tool outside of the epistemic context in which it can be reasonably expected to uncover truths' (Stanford 2006, 32)? The verdict depends essentially on two factors: (1) whether we in fact use these inferential tools to establish the central claims of concepts of God – or other hypotheses concerning ultimate reality – and (2) whether we have reason to doubt that we are in a position to exhaust (sufficiently) the relevant possibility space. The latter, as we have seen, can be approached in at least two ways: showing either that in the past, we have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative concepts of God – or other hypotheses concerning ultimate reality – or, more directly, that we are unable to exhaust (sufficiently) the relevant possibility space. Having discussed (2), I shall now turn to (1).

The difference between philosophy and theology

In the final part of this paper, then, I will address the essential question of whether the central claims of the concepts of God – held by realist theists to be (probably or approximately) true, and by realist atheists to be false – are actually inferentially arrived at and justified through IBEs or EIs, both in philosophy of religion and (revealed) theology. For my analysis, I shall distinguish three common strategies, S1-S3, by which the central claims of a concept of God are established and justified:

> S1: The central claims of a (philosophical) concept of God should be established on the basis of a philosophical proof of, or demonstrative argument for, the existence of God, from which we deductively or reductively infer, or deduce, relevant divine attributes that constitute the core of a concept of God.
>
> S2: The central claims of a (philosophical) concept of God should be established on the basis of a comparative evaluation, from which we inductively infer their (probable or approximate) truth, including by an IBE that (the central claims of) the concept of God that provides the best explanation for the 'evidence' relative to others are/is (probably or approximately) true, or by an EI eliminating all rival alternative concepts of God as either impossible or less likely candidates.
>
> S3: The central claims of a (theological) concept of God should, at least primarily, be established on the basis of divine revelation; natural reason and philosophical argumentations in line with S1 or S2 may play a considerable role, but if so, only secondarily.

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What understanding of our concept of God, as well as other hypotheses concerning ultimate reality, is appropriate to our current epistemic context? Here, it will be helpful to distinguish between the natural, or philosophical, and the supernatural, or theological, epistemic context. In both contexts the PUA applies to the discussion of concepts of God only to the extent that the central claims of these concepts are established by IBEs or EIs. I turn first to our natural epistemic context, then to the supernatural.

Concepts of God in philosophy of religion

In the context of philosophy of religion, the central claims of our hypotheses concerning ultimate reality, including concepts of God, are based on *reason*, or natural human reason alone, but arguably differently.

According to S1, or (a certain form of) traditional natural theology, the explanans is, in a sense, a result of the argument for the existence of God itself – it is arrived at on the basis of, and as a consequence of, that very argument. At least in traditional arguments reasoning from effect – some contingent phenomenon – to God as its cause, the concept of God is arguably not conceived independently of the argument. If successful, the argument would show that God, conceived in a particular way, is a necessary condition of the explanandum. For this reason, S1 seems *prima facie not* vulnerable to the PUA.

According to S2, or comparative natural theology, however, the argumentative starting point is a recognized set of 'evidence' for which a specific concept of God, conceived independently of the argument itself, is argued to be the better explanation than any alternative hypothesis. As Wesley Wildman (2006, 182, my emphasis) explains: 'Comparative natural theology [...] seeks to compare numerous compelling accounts of ultimacy in as many different respects as are relevant. In this comparison-based way, we assemble the raw materials for *inference-to-best-explanation arguments on behalf of particular theories of ultimacy*, and we make completely clear the criteria for preferring one view of ultimacy to another'. Or as Peter Forrest (2016, 22, my emphasis) explains, 'a conception of God is a hypothesis about the nature of God that is *put forward as more likely than, or at least as likely as, rival hypotheses* about the nature of God'. According to this strategy, then, the central claims of concepts of God are established on the basis of IBEs or EIs: philosophers infer, from the premise that a given concept of God provides a better explanation for the evidence in question than any other *considered* hypothesis, to the conclusion that the concept of God is (probably or approximately) true; or likewise, they infer, from the premise that all other *considered* alternatives can be eliminated as either impossible or less likely, to the conclusion that the remaining concept of God is (probably or approximately) true – or rather, that in both cases the central claims of that concept are (probably or approximately) true. But both inferences are reliable only if all, or at least the vast majority, of the relevant alternatives have both been conceived and considered.

By way of exemplification, consider John Leslie's (2001b, 189–216) case for his 'axiarchic' pantheistic concept of God, in support of which he presents three kinds of evidence: (1) the fact that the universe exists, that 'something rather than nothing' exists; (2) the causal orderliness of the universe; and (3) the apparent fine tuning of the universe. Here is how Leslie puts the three points, where Platonism refers to his view:

> (1) The fact of a world's existence [...] seem[s] a major item of evidence *so long as there are no strong competitors for a Platonic approach to explaining it*. Now, it could well seem there were no competitors at all, once one refused to accept that a Creator simply happened to exist. (Leslie 2001b, 189, my emphasis)

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Concerning the first kind of evidence, Leslie argues that the existence of the universe provides evidential support for pantheism if there are no serious rival explanatory hypotheses. The strategy is to eliminate all 'strong competitors', to make the evidence work in support of pantheism. Having eliminated all rival hypotheses, pantheism receives support from the fact that the universe exists because it explains the universe's existence: 'there are no strong competitors for a Platonic approach to explaining it'.

In support, Leslie presents a two-step argument: first, he argues that the existence of the universe needs explanation; then he employs an eliminative inferential procedure. The claim being made is that a 'Platonic [pantheist] theory could do the job. Has it any competitors?' (Leslie 2001b, 193) Going through and eliminating one rival account after the other, Leslie (2001b, 196) concludes that 'while a Platonic approach may throw light on how there could be such a reality as necessary existence, I see no other means of throwing light on this'. In short, all rival hypotheses have been eliminated, or so the claim goes.

> (2) Our world's causal orderliness, too, might be counted as evidence. After all, Platonism can offer to explain this; *it is hard to see how else it could be explained*; and treating it as an entirely reasonless fact can be thought highly unsatisfactory. (Leslie 2001b, 190, my emphasis)

Concerning the second kind of evidence, we see a similar two-step strategy: first, Leslie argues that the orderliness of the universe needs explanation; then he shows that pantheism provides this explanation. Leslie reasons that the evidence of the world's causal orderliness supports pantheism because pantheism explains the evidence. And the phrase 'it is hard to see how else it could be explained' seems to indicate again an eliminative inferential procedure; that all rival hypotheses can be eliminated.

> (3) Again, the existence of intelligent life could be evidence. [...] The apparent "fine tuning" of our universe – the fact, that is to say, that many of its basic features seem such that very slight changes in them would have made it impossible for intelligent life to evolve – might *best be explained* Platonically. (Leslie 2001b, 190, my emphasis)

Concerning the third kind of evidence, we see a slight shift in emphasis. Although it is still a two-step strategy, first arguing that the apparent fine tuning of the universe needs explanation, the second step consists in arguing that pantheism provides the best explanation: the apparent fine tuning of the universe can be 'best be explained' by axiarchicpantheism.

In each case, then, Leslie argues that there is some kind of evidence, in this instance even empirical evidence – the existence, orderliness, and fine tuning of the universe – in support of pantheism, and that either all rival hypotheses can be eliminated, or pantheism provides the best explanation for the evidence. And what is the conclusion that Leslie draws from this? Leslie (2016, 61) writes: 'How [...] do I prefer to use the word "God"? Nowadays I marginally prefer applying it to the whole shebang: the collection of infinitely many infinite minds in which I believe'. If we take the phrase 'I believe' to mean 'I believe to be *true*', then the view would be vulnerable to the PUA. Elsewhere, he explains it thus: 'When I suggest we are all of us elements in a divine mind, I am calling it fairly probable that that's what our situation really is' (Leslie 2001a, 115). So perhaps the inference being made is that axiarchic pantheism is probably true.

Two things are important to note about this argumentative strategy. First, the aim is most often not simply to show that there are alternative concepts of God, but that these are at least preferable (*relative*) *to* their rivals on some grounds: relative to *this evidence* and relative to *these considered rivals*, the proposed alternative concept of God is preferable – say, more philosophically coherent or religiously adequate. On the one hand, then, as we have

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seen, if the evidence is *limited*, so must be the conclusion. If the considered evidence is not representative of the *total* available evidence, then even if it supports one concept of God more than others, it may turn out that the total evidence is more supportive of other concepts of God, or other hypotheses concerning ultimate reality, including atheistic ones. On the other hand, proponents of a particular concept of God would have to argue that their concept of God provides a better explanation for the evidence than not only all *considered* relevant alternative hypotheses, including atheistic hypotheses concerning ultimate reality, but also all, or at least the majority, of the *conceivable* relevant hypotheses. Second, this preference is often given a realist theist spinning: the proposed concept of God is not only preferable, but also 'instantiated', as Bishop puts it. The aim is to show that the central claims of the concept of God are (probably or approximately) *true*. As Schellenberg (2016, 166) observes: 'With concepts come propositions or claims – claims to the effect that those concepts are exemplified'. As mentioned before, the PUA arises only if one adopts a realist theist (or atheist) stance. If one did not conclude that the central claims of a concept of God, or of another hypothesis concerning ultimate reality, are (probably or approximately) true, but, say, that the concept is merely a useful tool, without asserting its truth, no problem would arise. But many philosophers of religion, especially those involved in the debate about concepts of God, are theological realists and realist theists at that.

Therefore, at least as long as *realist theists* continue to come up repeatedly with novel alternative concepts of God, they presumably do so in a recurrent, transient underdetermination predicament: whenever they believe the central claims of a serious, well-supported, and distinct concept of God to be (probably or approximately) true on a given set of evidence, there are likely empirically inequivalent alternative concepts of God, or other hypotheses concerning ultimate reality, that are also serious, well-supported, and distinct, but either unconsidered or unconceived. And likewise, at least as long as novel alternative hypotheses concerning ultimate reality continue to emerge repeatedly – and be it only the alternative concepts of God just mentioned – even *realist atheists*, if they affirm anything as (probably or approximately) true about ultimate reality, presumably do so in a recurrent, transient underdetermination predicament: whenever they believe the central claims of a serious, well-supported, and distinct hypothesis concerning ultimate reality – for instance, an explanation of the evidence in question that does not involve God – to be (probably or approximately) true on a given set of evidence, there are likely empirically inequivalent alternativehypotheses concerning ultimate reality or concepts of God that are also serious, well-supported, and distinct, but either unconsidered or unconceived.

If both is the case – an eliminative or best explanation reasoning and realist theism or atheism – the thus established central claims of the concept of God or other hypotheses concerning ultimate reality are vulnerable to the PUA. And so, if realist theism is adopted, the central claims of concepts of God are established unreliably to the extent that they are based on IBEs or EIs. While this conclusion seems *prima facie* to have little impact on S1-type arguments in philosophy of religion, it considerably limits the argumentative power of S2-type arguments.

Concepts of God in (revealed) theology

In the context of (revealed) theology, the central claims of concepts of God are based primarily on divine *revelation*. According to S3, or revealed theology, the epistemic context is not merely natural but supernatural. In revealed religions, the central claims of concepts of God are based on divine revelation and faith as a human response, which is often understood as a so-called theological or supernatural virtue requiring divine grace, that is, a supernatural gift from God. To give just one example, in traditional Catholic theology, faith is understood as 'a supernatural virtue whereby, inspired and assisted by the grace of God, we believe that

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what he has revealed is true, not because the intrinsic truth of things is recognized by the natural light of reason, but because of the authority of God himself who reveals them, who can neither err nor deceive' (Dei Filius 3; Denzinger 2012, 603). Theological concepts of God and their central claims are based at least primarily on revelation and faith, as natural reason may play a considerable role here, too. As traditionally conceived, faith goes beyond but is not contrary to natural reason. Hence, human reason by itself may go some way towards, but is always insufficient for, justifying revelatory claims. Revealed religions, that is, religions based on revelation, as Mats Wahlberg (2024) observes, 'appeal to purported divine revelations in order to explain and justify their characteristic beliefs about God, and revelation has usually been understood as an epistemic notion'. If revelation is the primary source and justification for theological concepts of God and their central claims, then a two-fold question emerges: (1) is there a true divine revelation, and (2) if so, what is the content of this revelation, and how do we have access to it?

There are, without a doubt, a variety of revelation claims; the possibility space is considerable. Without going into much detail, the point I want to make here is simply that if, and to the extent that, revelation claims are *inferentially* justified, they may be vulnerable to the PUA – at least as far as natural, that is, unaided human reason is concerned. But they need not be justified, or justified exclusively, in this way. By contrast, then, if, and to the extent that, they are based on *non-inferential* modes of justification, revelation claims are not vulnerable to the PUA – and perhaps also in the case of divinely aided human reason, which I shall not discuss here in any detail.

Following George Mavrodes's (1988, 88) general scheme, although slightly altering it, we may approach the topic of revelation thus:

God reveals content *c* to audience *a* by means of *m*.

The common distinction between manifestational and propositional revelation – whether God reveals Himself (divine self-revelation) or propositions (revelation of propositions) or both – does not matter that much for the present purpose, insofar as both models would presumably agree that part of the content of revelation, *c*, are propositions, although they disagree on whether the means of revelation, *m*, involve propositions. And likewise, in both cases, it seems legitimate to assume that some interpretation is required for the reception of (both manifestational and propositional) revelation, though perhaps less for the latter (Wahlberg 2024, sect. 2.1).

Here, I shall focus on the justification of revelation claims. In very broad strokes, apart from fideism, two modes of justification can be distinguished (Wahlberg 2024, sect. 2): inferential and non-inferential justification. Inferential justification is a justification based on inferences from evidence. It is an evidence-based approach. Common inferential strategies include a cumulative probabilistic justification (à la Swinburne), a voluntarist justification (à la Moser), as well as reductionist (inferential) justification of testimonial belief. Classical credibility arguments, including miracles and prophecies, would also be part of this inferential strategy. The problem with inferential justifications is that they, or at least some of them, appear to be vulnerable to the PUA, insofar as they themselves make use of IBEs or EIs in justifying revelation claims – unless these inferences are divinely guided, as some positions assume, and such a divine aid would likely prevent belief in any alternative other than the true revelation claims. A non-inferential justification is a justification that is not based on any inference from evidence: 'A claim is non-inferentially justified when its positive epistemic status is a result of some form of direct cognition [...]. The notion of "direct cognition" includes having a belief that is "properly basic", but also having a belief that directly represents the content of a perceptual experience' (Wahlberg 2024, sect. 2.2). Non-inferential

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justifications include, for example, perceptual justification (à la Alston) or justification as properly basic belief (à la Plantinga), as well as anti-reductionist (non-inferential) justification of testimonial belief. Revelation is not grounded in any further evidence; revelation claims can be justified, or warranted, without such evidence. If any of these non-inferential strategies work, even if in combination with inferential justifications, then the PUA is mitigated – and perhaps also if it can be made intelligible how God could supernaturally strengthen the inferences that would be unreliable on purely natural terms. The central claims of theological concepts of God need *not*, or at least *not exclusively*, be established on the basis of IBEs or EIs.

Therefore, in moving from philosophy of religion to theology, the epistemic context changes from a context in which, according to S2, we ask ourselves if by natural *reason* alone we are able to exhaust (sufficiently) the possibility space of relevant alternative concepts of God, to a context in which, like in the case of S1-type arguments, such an exploration of the relevant possibility space is not needed. According to S3, the context of theology is one in which we ask ourselves if by *faith* we can identify, accept, and understand God's revelation. And if faith is required, then, in addition to our natural capacities, a supernatural habit is involved. This supernatural dimension is also often invoked when it comes to the thorny topic of the interpretation of revelation and the development of doctrine, mentioned above, which some traditions would insist is not only the work of human beings but also of God.[20] What is required in the latter epistemic context is an act of faith by which we accept revelation as true, which might be justified either inferentially or non-inferentially. While exclusively inferential justification of revelation appears to be vulnerable to the PUA too, at least if in line with S2 rather than S1, and as abstracting from any supernatural guidance, which some would argue affects the reliability of even the inferential method, non-inferential justifications as well as a combination of inferential and non-inferential justification appears *prima facie* not vulnerable to the PUA. But if we are justified in accepting revelation as true, then the content of revelation, especially what it contains about God and his main attributes, will constitute the core of our concept of God grounded in revelation. In this new context, then, the reasoning process is not, or not exclusively, based on EIs and IBEs, and hence we do need to exhaust (sufficiently) the space of serious alternatives in the first place.

Conclusion

In this paper, I have argued that the commonly held realist theist interpretation of concepts of God – and, by extension, perhaps even the realist atheist interpretation of other hypotheses concerning ultimate reality – is vulnerable to the PUA *to the extent to which the central claims of these concepts of God, or of other hypotheses concerning ultimate reality, are established on the basis of, and justified through, IBEs or EIs*. If this argument holds, it does notably not imply that there is no way to establish the central claims of a concept of God that is not vulnerable to the PUA. Rather, it highlights that some of the ways these central claims of concepts of God have been justified, especially in the debate about alternative concepts of God, are vulnerable to the PUA.

Three possible responses can be considered in conclusion. The first is to challenge the argument presented and show that debates over hypotheses concerning ultimate reality in general and concepts of God in particular are not affected by the PUA, or indeed that the PUA does not constitute a problem at all, neither in science nor in religion. The second is to question theological realism and adopt an antirealist stance. As stated above, this is not the approach I advocate.[21] The third reply proposed in this paper would be to base the central claims of concepts of God also on other epistemic grounds.

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If the argument presented is compelling, it invites reflection on two main questions. First, can we, in principle, (sufficiently) exhaust the possibility space of relevant alternative concepts of God, or other hypotheses concerning ultimate reality? And if so, under what conditions? I have given reason to believe that our natural human capacity to do so is limited, if not in principle, then at least in practice. The discussion has highlighted, on the one hand, the epistemic significance of conceiving and considering all relevant alternative hypotheses, if we seek to advance comparatively. Doing so is not just an instructive challenge; it is a success condition of IBEs and EIs. Where this condition cannot be met, our conclusions must, on the other hand, be qualified accordingly. Given the epistemically difficult nature of the subject matter of philosophy of religion and theology, doing so seems legitimate. But then the domain of reliable application of our methods to arrive at and justify the central claims of a given concept of God, or of other hypotheses concerning ultimate reality, as (probably or approximately) true needs to be clarified.

Second, what epistemic grounds are available to us? Some parts of nature – often called 'otherwise inaccessible' parts of reality – are not accessible other than through scientific theorizing and theory. Yet, as per the PUA in science, precisely in these domains, where we rely exclusively on IBEs, or other such inferential methods, as EIs, without satisfying a crucial condition of their reliability – namely, we cannot be reasonably sure that we have (sufficiently) exhausted the relevant possibility space and hence that the truth is among the considered possibilities in the first place – those very theories that are our only hope of gaining access do not reliably tell us how thing stand in nature. The problem, then, is that a condition of the reliability of IBEs is not satisfied when dealing with fundamental scientific theories about otherwise inaccessible parts of reality, *and we have no independent routes of epistemic access*. As per the PUA in religion, concepts of God, or other hypotheses concerning ultimate reality, arrived at and justified through IBEs do likewise not reliably describe how things stand in a seemingly 'otherwise inaccessible' domain or reality, but here the metaphysically opaque or somehow remote reality we call God is arguably not 'otherwise inaccessible'; many believe that *we do have independent routes of epistemic access to God*. If this is so, for as long as we cannot be reasonably sure that we have (sufficiently) exhausted the possibility space of relevant concepts of God – or other hypotheses concerning ultimate reality – I suggest to base concepts of God and their central claims also on other epistemic grounds. Two such grounds were mentioned: S1-type natural theology and at least non-inferentially justified divine revelation. In other word, we should not rely exclusively on IBEs or EIs to justify belief in God thus conceived. Such belief in (the central claims of) a concept of God need not be grounded solely in IBEs or EIs, however, if we have independent reason to believe – reasons other than God being the best explanation for a set of evidence. The aim has been, then, to suggest that taking recourse to additional epistemic sources would benefit the ongoing debate about concepts and alternative concepts of God. Other epistemic sources not vulnerable to the PUA, epistemic grounds other than IBEs and EIs, are required to conclude reliably that the central claims of a specific concept of God are true – or approximately true, if we believe God to be the incomprehensible mystery.

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Notes

1. Note that as commonly understood, scientific realism includes not only (2) the truth-aptness but also (3) the truth of 'the central claims of our best scientific theories about how things stand in [(1) mind-independent] nature'.

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As Psillos (1999, xvii) observes: 'What exactly, then, is scientific realism? I take it to incorporate three theses (or stances), which can be differentiated as *metaphysical, semantic* and *epistemic*. [...]

> 1. The metaphysical stance asserts that the world has a definite and mind-independent natural-kind structure.
> 2. The semantic stance takes scientific theories at face-value, seeing them as truth-conditioned descriptions of their intended domain, both observable and unobservable. Hence, they are capable of being true or false. [...]
> 3. The epistemic stance regards mature and predictively successful scientific theories as well-confirmed and approximately true of the world. So, the entities posited by them, or, at any rate, entities very similar to those posited, do inhabit the world'.

2. As Insole (2017, 274) explains, 'approaches to the realism/anti-realism distinction characteristically fall into four broad categories: [1] the cognitivist (which ask whether religious utterances are making truth claims at all, rather than expressing an attitude, or prescribing a rule); [2] the ontological (which focus on "mind-independence"); [3] the epistemological (which attend to the relationship between the truth and our beliefs about the truth); and [4] the semantic (which attend to the conditions under which statements can be meaningfully asserted)'. Insole helpfully distinguishes these four dimensions, or construals, by means of four basic questions, which theological realists would affirm, and theological antirealists would negate:

(1) Cognitivist dimension: 'Is the utterance *x* a statement that is capable of truth or falsity?' (Insole 2017, 275)
(2) Ontological dimension: 'Is the truth or falsity of the statement that *x* exists independent of mind?' (Insole 2017, 276)
(3) Epistemological dimension: 'Can we in principle have access to some of these truths about *x*?' (Insole 2017, 283)
(4) Semantic dimension: 'Is the meaning of the statement *x* [not] exhausted by the conditions under which we are justified in asserting *x*?' (Insole 2017, 285)

As Insole (2017, 285) argues, these four questions show that the realist/antirealist distinction can be characterized in different ways: in terms of (1) cognitivism, (2) ontological dependence, (3) epistemological confidence/insecurity, and (4) how concepts and statements get their meaning. For present purposes, 'theological realism' is taken in the minimal, cognitivist sense (1), denoting the position that some, although not necessarily all, theological utterances are truth-apt statements. Consequently, additional labels are needed to distinguish positions that affirm not only the truth-aptness but also the truth of these statements. In the context of a discussion of (alternative) concepts of God, the label 'realist theism' may thus be employed to denote the position that some, although not necessarily all, theological statements are truth-apt, *and* that at least the core of these truth-apt theological statements – particularly the central claims of the concept of God under discussion – are also (probably or approximately) true. By contrast, 'realist atheism' may be used to refer to the position that, although at least some theological statements and particularly the central claims of a given concept of God are truth-apt, at least the core of these truth-apt theological statements or claims is false. On this view, a realist theist, like a realist atheist, would answer at least the first of the above questions affirmatively, but would, unlike a realist atheist, also believe that at least the most central theological statements – particularly the central claims of their concept of God – are (probably or approximately) true. Admittedly, one could define 'theological realism' in such a way as to include the truth of the truth-apt theological statements – for example, by reformulating (2): 'Is the truth or falsity of the statement that *x* exists independent of mind, *and does* x *exist*?' (Insole 2017, 277, my emphasis) – but this would render the position of realist atheism by and large unintelligible; however, 'a classical atheist can agree with the classical theologian that religious statements are to be construed as "realist", where the atheist thinks that what makes religious statements false is that [...] there is no God' (Insole 2017, 277). In the present context, then, it seems preferable not to build truth into the definition of theological realism. I thank an anonymous reviewer for making this point.

3. I thank P. Kyle Stanford for this clarification.

4. If we start with the basic observation that '*evidence* supports *theory*', we will see that there are two different questions. The first asks about the *total evidence*, the second – namely, the PUA – about the *total set of serious theories*. The question of whether the evidence is complete is addressed, for example, by J. L. Schellenberg in his Problem of Total Evidence (PTV). The basic form of the PTV is as follow: '(1) If *p* is true, then the total evidence supports it. But (2) there is good reason to be in doubt about whether the total evidence supports *p*. So (3) there is good reason to be in doubt about whether *p* is true' (Schellenberg 2007, 29). The question raised in this connection, to which I will return below, is whether the currently available evidence supporting a given theory is representative of the total evidence. According to Schellenberg's sceptical version of the PTV, '[a]ny justification for doubt

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concerning the representativeness of evidence is [...] *itself* capable [...] of blocking the force of otherwise good evidence' (Schellenberg 2007, 29–30). In any case, the relevant point for the present purpose is that '*S*'s examined body of evidence *E* is representative of the total body of relevant evidence *E** just in case *E** underwrites the same assessment of *p* as *E*' (Schellenberg 2007, 28).

5. See especially Stanford (2006), 51–140.

6. Whether or not our cognitive capacity will potentially be enhanced substantially in the deep future does not affect our *current* epistemic state, although it might affect our future epistemic state.

7. Stanford (2006, 39) appears to list among the eliminative inferences: (a) abductive inference, (b) inference to the best explanation, and (c) a deductive enthymeme. And he goes on to say: 'In general, it seems most natural to represent an argument as [a] abductive or [b] an inference to the best explanation when we recognize that the available evidence simply favours one of the stated possibilities without ruling the others out altogether, while [c] a deductive construal seems more appropriate when the available evidence is strictly inconsistent with the various possibilities that it is used to exclude'. By contrast, Stanford now seems to take inferences to the best explanation as the most general form, which he would use synonymously with abduction, and eliminative inferences to be a species or subset of inferences to the best explanation. I thank P. Kyle Stanford for helping me to clarify this point.

8. As an anonymous reviewer argued.

9. At least as long as these religious believers and communities – or other serious enquirers and (non-believing) communities – maintain a certain rational threshold; as in the sciences, acceptance by a few disreputable (pseudo-)scientists would probably not make a view 'serious'.

10. For example, Dougherty (2017, 244–245) claims that 'theology is indeed like science in that its method is broadly inductive and confirms "theories" (interpretations of scripture, proposed doctrines; the term "theory" may have some connotations that are not apropos to theology, even though the term itself only means a truth claim about a non-obvious matter) via inference to the best explanation'. Similarly, Menssen and Sullivan (2017, 35) suggest 'to assess the Christian revelatory claim by constructing an overarching inference to the best explanation of a wide range of data' or evidence.

11. This is, in fact, what we see in much of the current debate about 'alternative' concepts of God, and the various attempts to save some phenomena that are widely, although not universally, accepted, such as some religious practices. This is arguably also what we see in various religious traditions and denominations and their acknowledged sources of knowledge; these sources, especially sources pertaining to revelation, are binding for some but not acceptable to others.

12. The inductive argument in support of premise (2) would then be:

> (2.1) If we have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative hypotheses concerning ultimate reality in the past, then, probably, we also fail to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative hypotheses concerning ultimate reality in the present.
> (2.2.) We have repeatedly failed to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative hypotheses concerning ultimate reality in the past.
> (2.3) Therefore, probably, we also fail to exhaust (sufficiently) the space of serious, well-supported, and distinct alternative hypotheses concerning ultimate reality in the present.

13. And likewise:

(1) EIs are unreliable to establish the (probable or approximate) truth of (the central claims of) a concept of God if philosophers (of religion) or theologians and religious communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative concepts of God, on the basis of which they eliminate all but one concept of God.

(2) In philosophy of religion or (revealed) theology, philosophers (of religion) or theologians and religious communities cannot be reasonably sure that they have (sufficiently) exhausted the space of serious, well-supported, and distinct alternative concepts of God.

(3) Therefore, in philosophy of religion or (revealed) theology, EIs are unreliable to establish the (probable or approximate) truth of (the central claims of) a concept of God.

14. For an overview, see, for example, Buckareff and Nagasawa (2016, 2019).

15. In fact, many would want to make this point stronger, adding that God and his creation are metaphysically radically distinct.

16. For an elaboration of this claim, see, for example, *ST* I.13.1.

17. One way of making this clear is to emphasize that for every similarity there is a greater dissimilarity between God and creature; see DH 806 (Denzinger 2012, 269).

18. For a short introduction of the idea, see, for example, Nagasawa (2017, 40–76).

19. For a historical discussion, see, for example, Harrison (2025).

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20. It is beyond the scope of the present paper to discuss this topic. For an overview, see, for example, Meszaros (2016).
21. Although I would like to add that the univocity of theological language at times assumed in the analytic debate poses its own problems. I think that an analogical understanding of theological language is much more appropriate to God as the primary subject matter of theology. This question will obviously have effects on the kind of theological realism and realist theism one can and should adopt. In other words, the fact that I do not want to endorse theological antirealism in this paper does not imply that we cannot or should not revisit the assumed form of theological realism and realist theism.

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