Abstract: In *The Realm of Reason* (2004), Christopher Peacocke develops a “generalized rationalism” concerning, among other things, what it is for someone to be “entitled”, or justified, in forming a given belief. In the course of his discussion, Peacocke offers two arguments to the best explanation that aim to undermine scepticism and establish a justification for our belief in the reliability of sense perception, respectively. If sound, these ambitious arguments would answer some of the oldest and most vexing epistemological problems. In this paper I will evaluate these arguments, concluding that they are inconclusive at best. Despite offering some interestingly original arguments, Peacocke gives us no reason to think that scepticism is false, and that perception is generally reliable.
Peacocke’s anti-sceptical arguments are closely related, and in fact share their first two premises. It is perhaps best, therefore, to see the second argument as an elaboration of the first. Peacocke’s argument that we are entitled to believe that we are in a non-sceptical world can be summarised as follows:

1) Experiences with content are complex (Peacocke 2004, 86-7).
2) A complex phenomenon is more likely to have a complexity-reducing explanation than an explanation that does not reduce complexity or no explanation at all (Ibid., 83; 95).
3) Sceptical explanations of our content-bearing experiences do not reduce complexity (Ibid., 90-1).
4) Our standard explanations of those experiences do reduce complexity (Ibid.).

Therefore, we are entitled to believe that we are in a standard, non-sceptical world.

Much in the argument hangs both on the notion of complexity as well as the complexity-reduction principle expressed in premise 2. As Peacocke uses the term, complex phenomena are ones that seem improbable but in fact have an explanation of why they occur, for example, like the structure of a snowflake (for examples of complexity in his sense, see Peacocke 2004, 75-86). Something is an instance of complexity when the range of exemplified properties is narrow compared to the range of all possible properties. To take Peacocke’s example of a snowflake, it exhibits a complex structure, since of all the possible ways it could have been, it exhibits six-fold symmetry, rather than any other shape. Perceptual experience is similarly complex in this sense, since a perceptual experience exemplifies only a narrow range of possible properties that it could have otherwise had.

Premise 2 embodies a kind of complexity-reduction principle. Peacocke formulates this principle as follows:
Complexity Reduction Principle: Other things equal, *good explanations* of complex phenomena explain the more complex phenomena in terms of the less complex; they reduce complexity (Peacocke 2004, 83). (emphasis added)

This principle, which just states a necessary condition of *good explanations*, is immediately followed by the metaphysical principle that I paraphrased in Premise 2:

Qualified Principle of Sufficient Reason: Other things equal, *it is more probable* that a complex phenomenon has a complexity-reducing explanation than that it has no explanation, or that it has one that does not reduce complexity (Ibid.). (emphasis added)

Peacocke takes both of these principles to be knowable *a priori*. He tells us that the thought behind these principles is that it is more likely that things come about in easier ways, and that for the most part, it is more rational to believe that things come about in these ways. Peacocke repeatedly emphasizes throughout his discussion that the notion of probability he is interested in is an objective, mind-independent matter.

The third and fourth premises of the argument hold that sceptical arguments are not complexity-reducing, and so should be rejected in favour of standard natural selection explanations as the cause of our perceptual experiences. According to Peacocke, a complexity-reducing explanation is one where the phenomenon appealed to has less complexity than the phenomenon to be explained. The problem with sceptical hypotheses is that they allegedly reproduce or multiply the complexity, not reduce it. Typical sceptical scenarios are filled with unexplained explainers, such as issues concerning the intentions of the evil demon, or why and how random events can give rise

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1 One might immediately wonder: if true, does Peacocke’s principle establish that complexity-reducing explanations, like being in standard, non-sceptical world, are merely more probable than the sceptical alternatives, or *considerably* more probable than not that we are in a normal world? The former seems too weak to provide us with justification for believing that we are in such a world, and as I will argue below, the stronger conclusion does not follow from his premises.
to our perceptual experiences. So, given the need to explain our perceptual experience, and given the alleged inadequacy of sceptical scenarios, combined with a qualified version of the principle of sufficient reason, Peacocke concludes by inference to the best (complexity-reducing) explanation that we are entitled to believe that we are in a standard, non-sceptical world.

2.

Before evaluating this argument, I will briefly outline Peacocke’s second anti-sceptical argument, since it shares the same problems as his first. The second argument is designed to establish that transitions from perceptual experience to perceptual belief are likely to result in true judgements in non-sceptical worlds. This conclusion aims to elaborate the conclusion of the first argument by showing that not only are we entitled to believe that we are in non-sceptical world, but that the perceptual beliefs we form are usually true. Peacocke’s argument for the reliability of sense perception can be summarized as follows:

1) Perceptual experiences are complex (Peacocke 2004, 86-87).
2) A complex phenomenon is more likely to have a complexity-reducing explanation than an explanation that does not reduce complexity or no explanation at all (Ibid., 83; 95).
3) A natural selection explanation of the occurrence of perceptual experiences is complexity-reducing (Ibid., 87-8; 98).
4) It is not clear that any other explanation is complexity-reducing (Ibid.).
5) Therefore, a natural selection explanation of the occurrence of perceptual experiences is probably true (from 2, 3, and 4).
6) A natural selection explanation entails that those experiences are usually veridical.

Therefore, transitions from those experiences to content-endorsing judgements usually result in true judgements. In other words, transitions from perceptual experience to perceptual belief are truth-conducive.

Premises 1 and 2 are the same as Peacocke’s first formulation of the anti-sceptical argument. I will grant premises 3 and 4 for the sake of argument. While premise 6 has
been questioned, I will not address it here. The most problematic premise is one shared by both formulations of the argument: premise 2, the complexity-reducing premise.

What does seem both *a priori* and true is the Complexity Reduction Principle that states that all else being equal, *good explanations* of complex phenomena explain the more complex phenomena in terms of the less complex. This is a truth about what makes for good explanation. Notice that this is not necessarily the same thing as a *true* explanation. A good explanation may have moral, aesthetic or pragmatic virtues. Peacocke surely recognizes this, which explains his appeal to his Qualified Principle of Sufficient Reason.

Recall that this principle is cast in terms of truth, not in terms of what makes for a good explanation. It states that, all else being equal, *it is more probable* that a complex phenomena has a complexity-reducing explanation than that it has no explanation, or that it has one that does not reduce complexity. It is this principle that is required for Peacocke’s argument to hold. Peacocke claims that this principle is *a priori*. It is not analytic, so presumably it is intended as a synthetic *a priori* truth. Unfortunately, however, it is just not clear if this principle is true, so at best it is inconclusive if the argument is sound.

To see why this is so, consider again the six-step reconstruction of Peacocke’s argument above. The overall strategy is as follows: we know, as common sense assures us, that many of our explanations are true. Taking Peacocke’s examples, we know that natural selection is the correct explanation of biological evolution, including the evolution and proper functioning of our perceptual faculties. We also take ourselves to know why snowflakes form as they do; to add a further example, we know why certain

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2 The main argument that questions if evolution (without God’s help) necessarily selects for truth-conducive cognitive faculties is Plantinga’s so-called “Evolutionary Argument Against Naturalism”. For an expression of this argument, and a collection of essays critically evaluating it, see Beilby 2002.
treatments cure some diseases rather than others. Peacocke then notes that what is common between these true explanations is that they are complexity-reducing in his sense. So from explanations known to be true on one hand, and a disposition to believe that these explanations are complexity reducing on the other, Peacocke reasons that there is a (justified) presumption to believe that complexity reduction connects with truth. What Peacocke is arguing for is a presumption (albeit a defeasible one) that complexity reduction is a sign of truth. Therefore, providing a single counter-example of a correct explanation that increases or reproduces complexity will not count against such a presumption.

However, the first problem with the Qualified Principle of Sufficient Reason and the use of complexity-reduction is that we cannot know a priori the correctness of the explanations we take ourselves to know that Peacocke appeals to. Take the explanations that we know to be true that Peacocke cites as data for the basis of his inference to the best explanation that these (true) explanations are non-accidentally complexity-reducing: natural selection in biology, and the six-fold symmetry of snowflakes. These things are both true, and known to be true (common sense tells us), but they are not known a priori. To be sure, these are paradigms of success in the empirical sciences, not discoveries that could have been made from the armchair. Accordingly, it is difficult to see how Peacocke can gain a priori support for his principle on this manifestly a posteriori basis.

A second concern is whether we are entitled to take as known the data that Peacocke does in this context. Take the perceptual experience referred to in premise 1, for example. Whose perceptual experience is Peacocke talking about? His own, or the experiences of others as well? If he is including other’s experiences, too, is he entitled to
presuppose the existence of other minds at this stage of the argument? If he is only
talking about his own experiences, then maybe the correct explanation of them is not one
in terms of natural selection. How does he know that he has been around to test the value
of the experiences?

Common sense does assure us that we know that, for example, minds other than
our own exist or that our best evolutionary theory is (at least approximately) true. This is
not problematic in an everyday context nor in scientific practice. However, here
Peacocke is mounting arguments for the reliability of sense perception, and against the
possibility of being a brain in vat – in short, Peacocke is offering abductive arguments
against scepticism. Since the falsity of scepticism is what he intends to argue we are
justified in believing, he cannot presuppose the falsity of scepticism by taking it that we
know the explanations he appeals to are true, e.g. that there have been millions of years
of evolution, without begging the question.

The third problem is that the Qualified Principle of Sufficient Reason is intended
in terms of objective, metaphysical probability, but the kind of possibility that Peacocke
draws on when trying to garner intuitive support for the principle is epistemic probability.
It is certainly true that we prefer complexity-reducing explanations, but why is it
supposed to be true that such explanations are likely to exist? What Peacocke tends to
say in support of this are things like the following:

A good theory must not only explain the occurrence of experiences; it should also explain without extreme improbability and
without pushing the question back why there is the instantiation of just that complex network of relations involved in those experiences having the contents they do (Peacocke 2004, 97).

(emphasis added)
The question is, if the kind of improbability is not epistemic, how do we judge *a priori* if the explanation given is improbable or not? Improbable relative to what? How could we know such a thing? And even if complexity-reduction is ever satisfied, how can we ever *tell* that it is the simplest explanation (and not just one of the simplest explanations)? It is of course easy to tell what *seems* simple and more complex to us, but the question here is justifying the judgement that a given explanation is *in fact* the simplest one.

One possible answer (that would need development and defence) is that conceivability, which is an epistemic notion, is somehow a guide to metaphysical possibility. But even if this is true, is it really *inconceivable* that a complex phenomenon has no explanation, or if it does, it cannot be as complex, if not more so, than that which it explains? While perhaps unsatisfying, on the face of it there does not seem to be anything inconceivable here, and hence by hypothesis, there is no impossibility. If this is not a reason to think that Peacocke’s principle is true, and his stated defence is inadequate, can we find another explanation of why he is misled into thinking that he knows the Qualified Principle of Sufficient Reason *a priori*?

The best explanation of why Peacocke unjustifiably thinks that the Qualified Principle of Sufficient Reason is necessarily true is that he thinks it follows from a related but distinct genuine *a priori* truth. Peacocke asserts: “That it is rational to hold that things have come about in a way in which they are more likely to have come about seems to be an *a priori* principle” (Peacocke 2004, 83). The implication seems to be that it is a rational thing to believe precisely because it is true (perhaps in virtue of meaning alone, no less; or at least knowable *a priori* if the claim is *synthetic*) that it is more likely that things come about in easier, rather than in more improbable or difficult ways. The
difficulty is that one ought to be agnostic about what is an easy way for something to come about, given that we are concerned with objective, metaphysical possibilities. This is compounded by the fact that when considering the reliability of sense perception and the possibility that we may be brains in a vat, we have no idea what the initial conditions are, which renders impossible judgements (let alone *a priori* judgements) about the ease in which things can objectively come about. Further, the point remains that while it is of course easy to tell what *seems* like the simplest explanation, the difficult question here is justifying the judgement that a given explanation is *in fact* the simplest one.

In short, the problem with Peacocke’s arguments is that it is just not convincing that we can know *a priori* that the simple is the sign of the true. But even if it was known *a priori*, difficulties remain in the application of the principle. Without this key premise that complexity reduction is a reason to think something is true, he cannot establish that we are entitled to believe that we are in a non-sceptical world, or that perception is generally reliable. If the sceptical paradoxes can be given adequate solutions, it is unfortunately not with these arguments.³

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