God and Evil: A Philosophical Inquiry

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Part 1: Introduction

Are the evils in the world strong evidence against the existence of an all-powerful and all-good God? And if they are, should we conclude that such a God does not, in all likelihood, exist? Many atheists believe that the correct answer to both of these questions is "yes." It is the job of philosophers, however, to test beliefs like this by argument, whether or not they share those beliefs. One way to do that is to construct and evaluate an "evidential argument from evil" against God's existence. That is my project today. In constructing such an argument, I do not seek to convince anyone that God does not exist. If that were my goal, then I would be an atheistic apologist like Christopher Hitchens, who recently spoke here at Notre Dame. But I'm not an apologist; I'm a philosopher. As I said, I construct arguments in order to test philosophically important beliefs, not to persuade others to share my beliefs.

Part 2: Poisson's Spot

I would like to begin by telling you one of my favorite stories from the history of physics. I will be using elements of this story throughout my lecture today to help clarify by analogy a variety of points about my argument from evil; so I recommend that you pay careful attention to the story's details. Now you may be thinking to yourself that only a philosopher would use a *physics* example to try to make his reasoning easier to follow. But don't worry. As someone on that TV show "The Big Bang Theory" said the other night, "the physics is theoretical, but the fun is real." The story takes place in France early in the 19th Century. At that time, not unlike now, there was disagreement about the nature of light. The dominant theory had for some time been what is usually called the corpuscular theory of light, but which I will simply call "particle-ism." According to this theory, light consists solely of particles. Isaac Newton favored this theory, which may be the main reason that it was dominant since the available evidence at the time was rather ambiguous. The second most popular theory at the time was what I will call "wave-ism." According to this theory, light consists solely of waves.

In the year 1818, the French Academy of Sciences held a competition, to which a wave-ist by the name of Fresnel submitted his work on diffraction. Diffraction occurs when waves bend around small objects (or spread out as they pass through openings in objects). One of the judges for the competition, a well known scientist by the name of Poisson, was convinced that light is composed of particles, not waves. He used Fresnel's model to show that, if light did consist of waves, then one should, given the right experimental set-up, expect to see a spot of light in the middle of the shadow of a small illuminated disk. Part of the reason that wave-ism predicts this is that, by orienting the light source and disk properly, one can guarantee that every point on the disk's edge is equidistant from the center of the disk's shadow. Thus, if light consists of waves and those waves simultaneously bend around the disk, then they will arrive in phase at the center of its shadow. Because they arrive in phase, they will reinforce each other (this is called constructive interference), resulting in the bright spot. Ironically, Poisson thought he had refuted wave-ism by showing that it had this "absurd" consequence. Another judge, however, a physicist by the name of Arago, actually performed the experiment,

and to Poisson's chagrin, a spot of absurd light did in fact appear in the center of the shadow just as Fresnel's model had predicted. This spot came to be known as Poisson's spot or, for those with no sense of irony, as Arago's spot. Fresnel, by the way, won the competition.

Particle-ism, of course, fits this datum very badly. If light consists solely of particles, then one would expect opaque objects properly oriented relative to a light source to perfectly shade anything directly behind them. Analogously, if someone is firing bullets at you, just stay behind a sufficiently large and strong shield and you need not worry, because bullets, being particles, will not bend around the shield and hit you. Of course, you may want to wear hearing protection since the sound waves generated by the firing of the gun will bend around the shield and strike your ears, even if the shield itself is perfectly sound-proof.

So here we have a classic case in which one theory, wave-ism, is more accurate with respect to a datum, Poisson's spot, than another theory, particle-ism. When I say that it is more accurate with respect to that datum, I mean that it fits or yields or predicts or retrodicts that datum better. In other words, given our background information, we have much more reason to expect the datum in question if we assume the one theory to be true than if we assume the other theory to be true. Notice the role of background information here. Wave-ism does not all by itself entail or even make likely the appearance of Poisson's spot. But given, for example, the background information possessed by Poisson and Arago, including crucially knowledge about how particles and waves of various sorts behave and of course Fresnel's specific work on diffraction and Poisson's calculations based on that work, there is good reason to expect the spot if wave-ism is true while it is very surprising (though not impossible) given particle-ism. In short, with respect to the datum of Poisson's spot, wave-ism is far more accurate than particle-ism. Partly because of the problem of Poisson's spot and other similar problems, most scientists in the 19th Century eventually abandoned particle-ism.

Part 3: The Argument

You may be wondering what scientific debates about the nature of light have to do with the philosophical problem of evil. The answer is "nothing" if you focus on the subject matter of those debates, but quite a bit if you focus on the structure of the reasoning in those debates. The argument from evil that I will now construct has a very similar structure. It compares theism to an alternative theory that I will call 'naturalism,' focusing in part on which of these two theories is more accurate with respect to the relevant data. Here is my official statement of the argument:

1. Naturalism is much simpler than theism.

2. With respect to the data of good and evil, naturalism is much more accurate than theism.

3. With respect to other data, any overall advantage in accuracy that theism has over naturalism is relatively small.

4. Any other epistemic advantage that theism has over naturalism is relatively small.

Therefore, 5. Theism is very probably false.

I won't try to reach any conclusions today about whether or not this is a good argument, that is, about whether or not it could be used successfully to establish the truth of its conclusion. Indeed, part of what I hope you take away from this lecture is that adequately defending the common atheistic intuition that evil makes God's existence unlikely is in reality extraordinarily difficult, contrary to what many philosophers who don't specialize in philosophy of religion seem to think. I will, however, sketch a defense of the argument's first two premises, briefly discuss the other two premises, and then close by saying something about why the conclusion of the argument follows from its four premises.

Before I do all that, however, I need to define two of the key terms in the argument, namely, "naturalism" and "theism." Philosophers use the term "naturalism" to refer to a wide variety of different theses and non-theses. I use the term to refer to a specific metaphysical theory, contrasting it with another metaphysical theory that I call "supernaturalism." To understand my somewhat non-standard definitions of these two terms, it is important to notice that concrete reality at least appears to include both a private, subjective, mental world—a world of conscious experiences like thoughts, feelings, imaginings, and sensations—and a public, objective, physical world—a world of rocks, chemical reactions, galaxies, and neurons. Throughout history, most philosophers have held the position that one of these two parts of concrete reality explains the existence of the other part. There are, of course, two versions of this position, one of which I call naturalism and the other of which I call supernaturalism.

Naturalists claim that the physical world has ontological priority, that there would be no mental entities if there were no physical world to produce them. Most naturalists are what I call "scientific naturalists." They add to naturalism the claim that the explanation of why any mental entities exist is a scientific one (and in particular a covering law explanation). Of course, scientific naturalists don't know exactly what that explanation is. They don't know what the laws are that explain why matter, when arranged in a certain way (e.g. in the form of a functioning nervous system), brings mind into existence. But scientific naturalists must hold that there are such laws.

Supernaturalists claim that the mental has ontological priority, that there wouldn't be any physical entities if there were no minds to create them. Most supernaturalists are what I call "personal supernaturalists." They add to supernaturalism the claim that the mental entity or entities that explain the existence of the physical world are persons and that the explanation in question is teleological or purposive. Of course, personal supernaturalists need not claim to know what purposes were being pursued when the physical world was created; but they must hold that there are such purposes.

Obviously naturalism and supernaturalism cannot both be true. It is at least conceivable, however, that both are false. For example, some sort of panpsychism might be true, according to which all concrete objects consist of a single sort of "stuff" that has both physical and mental aspects. Or perhaps something that transcends all but our most general categories and so is neither physical nor mental is the ultimate cause of both physical and mental reality. Or perhaps eliminative physicalism or, more

plausibly, eliminative idealism is true, in which case either the mental world or the physical world doesn't even exist. Let's group together all of these non-naturalist, nonsupernaturalist alternatives under the single banner of "otherism." Given these definitions, exactly one of naturalism, supernaturalism, and otherism must be true.

Metaphysical theism (which I will call "theism" for short) is a form of supernaturalism and in particular a form of personal supernaturalism. It identifies the mental reality responsible for the existence of physical reality with God—in other words, with a single person who is omnipotent (or all-powerful), omniscient (or allknowing), and omnibenevolent (or all-good).

Part 4: Simplicity

With these definitions in hand, we are now ready to examine the first premise of my argument, which says that naturalism is much simpler than theism. It is widely agreed among scientists and to a lesser extent among philosophers that simplicity is an epistemic theoretical virtue—in other words, that the simpler a theory is, the more likely it is to be true. There is much disagreement, however, about what exactly simplicity is and why it makes a theory more likely to be true. Without attempting to address even implicitly the vast literature on this topic, I'd like to suggest today that there are two facets of simplicity that are unquestionably relevant to assessing how probable a theory is.

To make this point, I will return as promised to the story of Poisson's spot. Switching from actual history to hypothetical history, suppose that, faced with the problem of Poisson's spot, particle-ists at the time had expanded their theory instead of abandoning it, perhaps calling their expanded theory "particle-ism plus." This new theory, like the original one, states that light consists solely of particles, but it adds to this core theory the claim that the trajectories of those particles, unlike the trajectories of other particles, are guided by waves. Particle-ism plus arguably fits the datum of Poisson's spot just as well as wave-ism. And since it entails particle-ism, a defense of particle-ism plus is in effect a defense of particle-ism. An interesting question, then, is this. Why didn't Poisson and other particle-ists in the early 19th Century employ this strategy? Why should anyone back then have abandoned particle-ism given that particle-ism plus is just as accurate as wave-ism with respect to the datum of Poisson's spot? The answer, of course, is that accuracy is not the only thing that affects the credibility of scientific hypotheses. Another key epistemic virtue of theories is simplicity. The problem with particle-ism plus is that it is far less simple than wave-ism. But what is it about particle-ism plus that makes it less simple and as a result less probable, at least prior to inquiry, than wave-ism? Two answers strike me as fairly obvious, though in philosophy it isn't always obvious what's obvious.

First and foremost, particle-ism plus is much less modest than wave-ism. When I say that it is less modest, I mean that it has more "content" in the sense that it says "more" about the world that is not known by rational intuition to be true, where saying more involves making more claims or making claims that are broader in scope or that are more specific. The less one says about the world in this sense, the less room there is for error and hence the more likely it is that what one says is true. So modesty is rather obviously an epistemic virtue of theories: it makes a theory more likely to be true. Applying this to our theories of light, wave-ism and particle-ism are highly symmetrical. Both assert that light consists solely of one sort of entity. This strongly suggests that the two theories are equally modest. Particle-ism plus, however, says everything that particle-ism says and more. Thus, it is less modest than particle-ism and ipso facto less modest than wave-ism.

A second reason that particle-ism plus is less simple than wave-ism is that what it adds to particle-ism does not cohere very well with particle-ism. Just as a theory can fit the data to different degrees, its parts (i.e. the propositions it is known to entail) can fit each other to different degrees. One part of a theory can support other parts, or it can be irrelevant to other parts, or it can count against other parts. Clearly, the more coherent a theory is—the better its parts fit together—the more likely it is to be true. So coherence, like modesty, is an epistemic theoretical virtue. Again, because of their symmetry and because there is no more or less internal tension in saying that light is a particle than in saying that it is a wave, it would seem that wave-ism and particle-ism are equally coherent. But the added claim that the trajectories of light particles, unlike the trajectories of other particles, are guided by waves does not fit particle-ism well, because it postulates the existence, not of more particles interacting with light particles, but of waves. Also, particle-ism plus implies that, while other particles are not guided by waves, light particles are, which introduces even more probabilistic tension into the theory. One could, of course, remove the clause about other particles not being guided by waves, but that would just shift the problem from one of incoherence to one of inaccuracy with respect to the datum that other particles are not guided by waves. So

the lack of coherence of particle-ism plus—the fact that its parts, though consistent with each other, don't fit together well—is another reason that it is so much less probable independent of the data than wave-ism.

Now let's use these two facets of simplicity, modesty and coherence, to compare naturalism, supernaturalism, and theism. Naturalism and supernaturalism, like waveism and particle-ism, are highly symmetrical positions. Of course, syntactical symmetry is not all that is important here (as Goodman's paradox makes clear). But I think the symmetry between naturalism and supernaturalism is deeper than surface grammar. Both theories postulate the existence of mental and physical entities, and both assert that one of these two sorts of entities explains why there are any entities of the other sort. Further, for any position that a naturalist takes on the mind-body problem, there is a parallel, equally modest and equally coherent position that a supernaturalist might take, and vice versa. For example, while naturalists might be identity physicalists or epiphenomenalists or interactionistic dualists, supernaturalists might be identity idealists or reverse epiphenomenalists or interactionistic dualists. Of course, there are supernaturalists like Amy Seymour and Peter van Inwagen who are physicalists about local minds including human minds but dualists at a broader metaphysical level. Similarly, a naturalist might be an idealist about local physical objects, including tables and rocks and atoms, but a dualist at a broader metaphysical level. Philosophers like Jerry Walls will find both of these views quite strained—obviously their parts are far from a perfect fit—but the key point is that they are equally so. Neither is more or less coherent than the other. I conclude that the symmetry between naturalism and

supernaturalism is deep enough to justify the position that these two theories are equally modest and equally coherent.

If this is right, then theism is analogous to particle-ism plus. We could even call it supernaturalism plus, but we won't. Just as particle-ism plus is much less simple than particle-ism and so much less simple than wave-ism, theism is much less simple than supernaturalism and so much less simple than naturalism. For theism claims that supernaturalism is true but then adds a number of other claims to supernaturalism, namely, the claim that the mental reality responsible for the existence of physical reality is a person and the further very specific claim that this person is omnipotent, omniscient, and omnibenevolent. These additional claims fit well with each other and are not a bad fit with supernaturalism, but they are not strongly supported by supernaturalism either. So naturalism, primarily because of its greater modesty, is much simpler than theism. Of course, some philosophers will deny that modesty and coherence are the only two facets of simplicity, but given the symmetry of naturalism and supernaturalism, it seems unlikely that the first premise of my argument will be undermined even if they are right. The truth of this premise is itself a strong prima facie reason to believe that naturalism is more likely to be true than theism and hence that theism is probably false. But this reason has nothing to do with good and evil. So let's turn to the second premise of the argument.

Part 5: Accuracy and the Data of Good and Evil

The heart of the problem of evil for theism is very similar in structure to the heart of the problem of Poisson's spot for particle-ism. In both cases, at least one serious alternative

theory (where seriousness depends in part on relative simplicity) predicts or retrodicts certain data far better. In the case of particle-ism, the relevant alternative was, at least in France in 1818, wave-ism and the datum in question was Poisson's spot. In the case of theism, that alternative is naturalism, and the data in question are the data of good and evil. By the "data of good and evil" I mean to include everything we know about the amounts, kinds, and distribution of benefits and harms to human beings and to any other beings capable of being benefited or harmed from their own internal point of view. Premise 2 of my argument from evil says that naturalism is much more accurate with respect to these facts than theism is. In other words, we have much more reason to expect these facts to obtain if we assume that naturalism is true than if we assume that theism is true.

To see that this is so, imagine two alien beings who are much like us in intellectual ability and who are gradually learning everything we know (and nothing more) about our biosphere. To make them even more similar to us, let us also suppose that these two beings know almost nothing about themselves and don't take into account what they do know when they engage in theoretical reasoning. One of these alien beings is named Natty; Natty is a naturalist. The other alien is Theo. Theo, of course, is a theist. Having already acquired a great deal of information about Earth and its inhabitants, Natty and Theo begin to acquire the data of good and evil. As these data slowly trickle in, Natty and Theo try to predict what they will soon learn about the conscious beings on Earth. I contend that Natty will, at various stages in this process, make more accurate predictions than Theo. One reason for this—the only reason I will

emphasize today—is that Theo's belief in theism undermines certain inferences that naturalism does not undermine.

For example, suppose Natty and Theo already know that many plants die before they ever have a chance to flourish, that many others languish for much or all of their lives, and that even plants that flourish for much of their lives eventually wither and die. Natty and Theo then begin to learn about the animal life on earth. Specifically, they learn that some animals, unlike plants, can be harmed or benefited from their own internal point of view. Before learning more, they consider the question of whether these animals (including of course human beings) suffer the same fate as plants. Do many die young? Do many barely survive, languishing for most or all of their lives? Do some flourish for a time but then decay and die in old age?

Being a naturalist and, like Theo, seeing a plausible connection between these ecological facts about plants and the operation of natural selection, Natty expects to learn that the answers to these questions are all "yes." Of course, there is an interesting moral difference between plants and conscious animals since the latter, unlike the former, can be harmed from their own internal point of view; and when Natty reasons analogically from facts about plants to the likelihood of similar facts obtaining in the case of animals, she will ask herself whether her inference is undermined by this difference. In other words, she will ask whether this dissimilarity between conscious animals and plants is a relevant one. Because she is a naturalist, however, she will no doubt answer that question negatively. For given naturalism, evolution and nature in general is likely to be blind to moral considerations.

Theo, on the other hand, finds himself with no good reason to believe that these moral dissimilarities are irrelevant; for he believes that the ultimate cause of evolution and of all ecological, botanical, and zoological facts is an omnipotent, omniscient, and omnibenevolent God. Such a God, being omniscient, is well aware that flourishing in the biological sense can benefit some animals, but no plants, from their own internal point of view and languishing can harm them. Being omnipotent, such a being would be as well positioned as possible to ensure that such animals do flourish for at least most if not all of their lives. And being omnibenevolent, such a being would, other moral considerations held equal, want such beings to flourish. So Theo is not entitled to assume that the moral differences between plants and conscious animals are just irrelevant dissimilarities. He would be foolish to predict that conscious animals, like plants, frequently die young or survive but languish for most or all of their lives.

Of course, Theo recognizes that both his knowledge of possible goods and evils and his knowledge of entailment relations between goods and evils are very limited. Thus, he realizes that there might be moral reasons unknown to him for the theistic God he believes in to bring about a biosphere in which many conscious beings fail to flourish and so fail to achieve the good that for which they appear to be designed. He also recognizes, however, that it is also possible and no less likely that his God would have reasons unknown to him not to create a world of that sort. And then there are, of course, the moral reasons for not creating a world of that sort that he actually knows about. So even if Theo is not sure what his God will do, he certainly cannot reasonably judge that the moral differences between plants and conscious animals are irrelevant and so he cannot make use of the analogical inference Natty uses to make her prediction. Therefore, Theo will, if he is wise, not make the same prediction Natty makes. Of course, Natty's prediction, it turns out, is accurate. So when the data comes in, she will turn to Theo and say: "See. I told you so. Don't you see now that naturalism is more accurate with respect to these data than theism is?"

Here's another example. After learning that human beings and some other animals feel pain and pleasure, Natty and Theo may consider the question of what role pain and pleasure play in the lives of human beings and animals. After learning that many other parts of organic systems play a fundamentally biological role—they systematically promote survival and reproduction—Natty may predict, at least tentatively, that pain and pleasure play a similar role, especially since they are so well suited to function in that way. Again, Theo has much less reason to make this prediction. He will note that pain and pleasure have a special sort of moral significance that other parts of organic systems do not have. There is good reason for Natty to ignore this difference, to regard it as an irrelevant dissimilarity when she reasons analogically about what role pain and pleasure are likely to play in the world. But once again, Theo should not be confident at all that this moral difference will turn out to make no difference. And so he has much less reason than Natty to expect to learn that pain and pleasure play the biological role that in fact it turns out they do play. Therefore, Natty's naturalism will, once again, make possible more accurate predictions than Theo's theism. Indeed, focusing on just pain for a moment, notice that, if Theo were to make any prediction at all, he might predict that he and Natty will learn that

pain plays some clear moral role like promoting justice. In any case he certainly won't predict with any confidence that pain does not play such a role. Natty, by contrast, has good reason to expect that, when the data is all in, she and Theo will learn that "the rain falls on the just and the unjust."

Instead of producing additional arguments of this sort, which I will leave for the book, I want to turn now to what many philosophers of religion regard to be the gold standard of objections to arguments from evil against theism. In my 1996 article "The Skeptical Theist" I called this objection "skeptical theism" and for some reason that label stuck. Next year at Notre Dame, a number of fellowships will be given to scholars doing research on skeptical theism. The core idea of skeptical theism is that arguments from evil are all flawed because they all presuppose that we know more about goods and evils and their logical relations to each other than in fact we do know. Applying this to my argument from evil, skeptical theists would be skeptical about the second premise, denying that we have good reason to accept it. They would claim that we know so little compared to what an omniscient being would know about what possible goods and evils there are and what logical relations goods and evils bear to each other, that we are in no position to judge the accuracy of theism with respect to the data of good and evil.

Notice that particle-ists could make a similar move in response to the problem of Poisson's spot. They might first modify their theory a bit so that it claims that light consists solely of "m-particles," where "m-particles are particles that behave mysteriously when they pass by small circular obstacles like spheres and disks. They might then respond to the problem of Poisson's spot by defending skeptical particle-

ism—that is, by claiming that we can't judge how likely it is that these mysterious mparticles would bend around a disk and coalesce in the center of the disk's shadow. Thus, we are in no position to assess the accuracy of m-particle-ism with respect to Poisson's spot. Such a strategy clearly fails for two reasons. First, defenders of skeptical particle-ism cannot deny that, unlike wave-ism, m-particle-ism fails to predict Poisson's spot. Thus, they in effect admit that m-particle-ism has at least one epistemic disadvantage when compared to wave-ism. Second, Poisson's spot is a very specific phenomenon. Although m-particle-ism doesn't predict exactly where light particles will go when they encounter a small circular object, it remains very unlikely that they would follow a path that produces Poisson's spot.

Similarly, skeptical theism admits that theism can't predict or retrodict the data of good and evil. In fact, skeptical theism *emphasizes* this. And that is tantamount to admitting that naturalism is more accurate with respect to that data than theism is. Second, what we know about the amounts, kinds, and distribution of benefits and harms in the world is very specific. Even if Theo can't predict exactly what a God would be likely to do, it remains very unlikely that God would allow the precise data of good and evil we observe. One might object that these data are just as precise and so just as unlikely given naturalism; but this ignores the analogical reasoning based on background information that raises their probability given naturalism, but not given theism. So the fact that a God, like m-particles, would be likely to move or work in mysterious ways does not negate the fact that naturalism is much more accurate than theism with respect to the data of good and evil. In my book, I plan to argue that, not only does skeptical theism fail to undermine premise 2 of my argument from evil, it actually supports premises 3 and 4. Now that's what I call a bad solution to the problem of evil!

Not all philosophers who try to solve the problem of evil think that skeptical theism is the right way to go. A small number, most notably Richard Swinburne of Oxford University, construct theodicies. A theodicy, understood broadly, is an expansion of theism that attempts to specify, if not what God's actual reasons for producing or allowing evils are, at least what those reasons might be. I don't have time today to evaluate these theodicies (which of course would involve comparing them to particlodicies). So instead I'll just make an illegitimate appeal to authority by mentioning the assessment of existing theodicies once given by the most important philosopher of religion now writing, who said that they are all "tepid, shallow, and ultimately frivolous." Out of kindness, I won't mention the name of the philosopher who said this, because I think that he—or she—has since taken it back or at least significantly qualified it. In my opinion, he—or she—should have stuck with his or her original assessment.

Part 6: Accuracy and Other Data

The third premise of my argument from evil is needed to satisfy what philosophers of science call the "requirement of total evidence." Again, consider the case of Poisson's spot. Just because wave-ism is, not only as simple as particle-ism, but also more accurate with respect to Poisson's spot, it doesn't follow that wave-ism is more probable all things considered than particle-ism, because there are other data to be considered besides Poisson's spot, including data about shadows, reflection, refraction,

and so on. Indeed, a serious blow came to wave-ism in the early twentieth century, when Einstein showed that, if light is made up of photons (which qualify as particles in a broad sense), then the photoelectric effect could be explained. This was a victory for particle-ism over wave-ism, though scientists ultimately rejected both theories in favor of a third theory that attributes some sort of wave-particle duality to light and to other physical things as well. Similarly, before we can conclude that theism is probably false, we need to take into account other data besides the data of good and evil, assessing the relative accuracy of naturalism and theism with respect to these other data.

For example, it might be argued that theism is more accurate than naturalism with respect to the existence of intelligent life, or with respect to the existence of embodied moral agents who possess libertarian free will, or with respect to the occurrence of miracles like the resurrection of Christ or the writing of the Koran, or with respect to the fact that human beings have moral duties. On the other side, it might be countered that some of these things (like libertarian free will, miracles, and moral duties) either don't really exist (or at least we don't know that they do) or do exist but are not any more surprising on naturalism than on theism. It might also be argued that, although some of these things do exist and their existence fits theism better than it fits naturalism, this advantage for theism is offset by other facts that fit naturalism better. For example, the fact that the mental properties of human persons are dependent to a very high degree on the physical properties of their brains or nervous systems is compatible with theism, but just what we would expect on naturalism. Or consider the fact that the most intelligent and most virtuous life form we know to exist is merely human. While we are no doubt wondrous simians in many respects, given theism one might have expected something more impressive, something more worthy of the creative capacities and concerns of an omnipotent and omnibenevolent being. But maybe I'm being overly self-critical.

The third premise of my argument from evil says that, with respect to all of this other data, any overall advantage in accuracy that theism has over naturalism is relatively small (if it exists at all) compared to the advantage that naturalism has over theism either in accuracy with respect to the data of good and evil or for that matter in simplicity. Obviously, evaluating this third premise is a huge undertaking, which reinforces my point that atheists are often too quick to assume that the path from evil to the likely falsity of theism is a short or easy one.

Part 7: Beyond Simplicity and Accuracy

The fourth premise of my argument says that any other epistemic advantage that theism has over naturalism is relatively small. This premise is needed because simplicity and accuracy might not be the only two factors affecting the relative probabilities of naturalism and theism. There are several interesting objections to this fourth premise. Today I will mention just one. The source of this objection is a philosopher by the name of Alvin Plantinga. (Some of you may have heard of him; in fact, I may have quoted him—or her—earlier today.) Plantinga claims that we have a special cognitive faculty called a sensus divinitatis that gives at least some of us direct evidence for God's existence. Indeed, he believes that, at least for some of us, that evidence is so powerful that it overwhelms any advantage in accuracy and simplicity that naturalism has over theism, even if that advantage is large.

Plantinga is certainly correct in thinking that direct or non-inferential evidence can be very powerful. Suppose, for example, that the hypothesis that I had hard-boiled eggs for breakfast is very accurate with respect to a variety of facts, such as the fact that I almost always have hard-boiled eggs for breakfast, that several witnesses claim that they saw me eating hard-boiled eggs for breakfast, and that my cook reports making me hard-boiled eggs for breakfast. (Sometimes I fantasize about having my own cook.) Now consider the competing hypothesis that I had soft-boiled eggs for breakfast and that this took place some time between 7 and 8am. This hypothesis is much less accurate with respect to those facts and also less modest because of the added temporal claim. Yet the probability of it being true might still be very high—at least relative to my epistemic situation if not to yours—if I very clearly remember having had, some time between 7 and 8am, soft-boiled eggs for breakfast. My memories might give me direct non-inferential evidence for the soft-boiled egg hypothesis that outweighs the sizable advantage in accuracy and simplicity of the hard-boiled egg hypothesis. The crucial question is: can the sensus divinitatis do for theism what memory can do for the soft-boiled egg hypothesis?

One disanalogy between the two cases is that we all know that human beings have memories that are, in certain circumstances, very trustworthy. But we don't all know that we have a sensus divinitatis. And Plantinga doesn't even attempt to prove to non-theists that we have such a faculty. So why should someone like me take his claim

seriously? Imagine, for example, a particle-ist with a mystical bent who tried to solve the problem of Poisson's spot by claiming to have a "sensus illuminatis" that gives her direct evidence for the particle nature of light. No one would listen to such nonsense. There are, however, two important differences between Plantinga's appeal to a sensus divinitatis and the mystical particle-ist's appeal to a sensus illuminatis.

First, even if we assume that particle-ism is true, we still have no reason to believe that anyone has a sensus illuminatis. But if theism is true and God wants at least some of us to be theists, then that is some reason to believe that at least some of us have a properly functioning sensus divinitatis. This is important because it suggests that my argument from evil begs the question—that to know that the fourth premise is true one would first have to know that God doesn't exist.

Second, the relatively new discipline of cognitive science of religion supports the claim that forming beliefs about invisible agents including gods is very natural for human beings. We tend to form such beliefs instinctively, without inferential evidence, and our tendency to do so is not culture-specific, but species-specific, contrary to what most social scientists seem to believe. Obviously, the same cannot be said for the belief that light consists solely of particles. So there is good reason to take Plantinga's appeal to a sensus divinitatis more seriously than a particle-ist's appeal to a sensus illuminatis. Still, there are at least four reasons to doubt that such an appeal solves the problem of evil.

First, and perhaps most conclusively, even if everything Plantinga says about the sensus divinitatis is correct, it is a mistake to conclude categorically that my argument from evil is unsound or question-begging, because probability is relative to epistemic

situations. Relative to the epistemic situations of those who do not have a sensus divinitatis or at least none that is functioning the way it should (and this includes, I think, many theists as well as non-theists), the argument might still establish its conclusion. Second, it is far from clear that the assumption that theism is true makes it likely that human beings have a sensus divinitatis. For even if God exists, our good may very well not involve some sort of interactive relationship with God, at least in this life. And if that is so, then God may have no reason to want us to be theists and so may have no reason to provide us with a sensus divinitatis. Third, if theism does make it likely that some human beings have a properly functioning sensus divinitatis, then it makes it likely that everyone has one or at least that everyone who is not resistant to belief in God has one, which, pace John Calvin, is not what we observe.

Finally, a fourth reason for doubting that an appeal to the sensus divinitatis can solve the problem of evil is that the cognitive science of religion is not wholly supportive of Plantinga's position. Human beings instinctively believe in all sorts of invisible agents, not just in gods and certainly not just in a single creator-God let alone the specific creator-God of metaphysical theism. So we seem to have a broad sensus actoris instead of a narrow sensus divinitatis. (Cognitive scientists sometimes use the term "hyperactive agency detector," which sounds so much less impressive than a "sensus divinitatis.") Of course, belief in God is doing very well in the world. As scientific and other naturalistic explanations for lightning and famine and things that go bump in the night have become widely accepted, belief in lesser gods and ghosts and fairies has decreased. What should we conclude from this? That when the sensus actoris

produces a belief about an invisible agent, we should trust it only if that agent is the God of metaphysical theism? Or should we conclude that the sensus actoris should never be trusted when it produces beliefs about invisible agents? And even if we opt for the first option, should we conclude that the support that the sensus actoris gives for theism is, in spite of its poor track record with respect to other invisible agents, so strong that it can defeat the powerful prima facie case against theism provided by the first two premises of my argument from evil? These are difficult questions . . . that no doubt will all be answered conclusively in my book.

Part 8: The Inference

Part of the idea of my argument is that the probability of a theory being true, whether that theory is scientific or historical or metaphysical, depends in part on its accuracy and in part on its simplicity. Accuracy is a matter of how well a theory fits whatever data one has. Simplicity affects the probability of a theory by affecting its initial plausibility, that is, by affecting how probable it is prior to inquiry, prior to assessing the evidential impact of the data. Frequently there is tension between these two theoretical virtues: one is often forced to choose between a theory that is simpler but less accurate and a theory that is more complicated but also more accurate. This is inevitable, since by complicating a theory, it can often be made to fit the data.

What the first two premises of my argument claim is that, when we compare naturalism and theism in light of the data of good and evil, we have a rare case in which one theory, naturalism, is both much more accurate with respect to those data and also much simpler than the other theory, theism. This constitutes a very strong prima facie reason to believe that naturalism is much more likely to be true than theism. But it is only a prima facie reason. For we have other data besides the data of good and evil that must be taken into account, hence the role of premise 3 in the argument. And it is arguable, as we have seen, that the probabilities of naturalism and theism, perhaps unlike many scientific theories, depend on more than just their accuracy and simplicity, hence the role of premise 4 in the argument. If however, all four premises are true, then clearly naturalism is much more probable than theism. This does not imply that naturalism is probably true. Otherism or at least the disjunction of otherism and supernaturalism might still be more probable than naturalism. But it does imply that theism is very probably false. For naturalism is one of the ways that theism can be false. Thus, the denial of theism must be at least as probable as naturalism. Therefore, if naturalism is much more probable than theism, then the denial of theism must be much more probable than theism, which means that theism must be very probably false.

To sum up, I'm fairly confident that the first two premises of the argument are true, though you should be aware that there are serious objections to both of those premises that I haven't addressed today. I'm less confident that the third and fourth premises are true, and I certainly haven't said anything today that should come even close to convincing you that they are true. But if all four premises are true, then it does follow that the God of metaphysical theism in all likelihood does not exist. Thank you.