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The 'Why Design?' Question

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Given all of the attention the design argument has received both from philosophers and the general public, the idea that a key premise of it usually escapes scrutiny seems incredible. Yet typically the claim that the evidence of design is highly probable given the design hypothesis is both taken for granted by defenders of the design argument and unchallenged by critics of the design argument. Instead, the debate focuses on whether the alleged evidence of design is real or bogus and on whether there are or are not plausible alternative naturalistic explanations of that alleged evidence. But even assuming a designer exists, why should that lead us to expect the evidence of design in the first place? Why think the designer would design anything? Let us refer to this as the 'Why design?' question. As the import of the 'Why design?' question emerges in the course of this chapter, we will see how and why it is neglected in the literature on the design argument and consider what can be done to remedy the situation.

1 Bayesian design arguments and how the 'why design?' question arises for them

Although in centuries past David Hume (1970 [1779]) and William Paley (1963 [1802]) framed the design argument as an argument from analogy, nowadays design arguments are almost always fit within some probabilistic inferential structure. This is true of both of the leading current versions of the design argument: the argument from alleged cases of irreducible complexity in biology and the argument from the apparent fine-tuning for life of the fundamental parameters of physics. The exact nature of the inference underlying any one of these probability-based design arguments is a matter of considerable debate, however, with a choice amongst three types of inference: Bayesian, likelihood, and classical statistical.¹ The solid consensus within the professional philosophy literature on the design argument is that the inference underlying the design argument is Bayesian. As it turns out, it is only for Bayesian versions that the 'Why design?' question is pressing.

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To see the differences amongst the three types of inference, the following notation will prove helpful. Let the conditional probability of some proposition A on some other proposition B be expressed as $P(A/B)$. Let (E) stand for some proposition regarding the alleged evidence of design. Let (K) stand for some proposition summing up the background knowledge relevant to assessing that evidence. Finally, let (D) stand for the hypothesis that there exists a supernatural intelligent designer. With this notation in place, we can distinguish Bayesian, likelihood, and classical statistical design arguments in terms of the claims about conditional probability asserted in them.

The proponent of a Bayesian design argument makes three claims about conditional probability and then draws a conclusion. (1) If there is no designer, the probability of the evidence of design is very low given our background knowledge. (2) If there is a designer, the probability of the evidence of design is quite high given our background knowledge. (3) The prior probability of there being a designer is considerably higher than the probability of the evidence of design conditional on there being no designer and given our background knowledge. So, given the evidence of design, and our background knowledge, the probability that there is a designer is quite high. We can represent this argument generically as follows.

The Generic Bayesian Design Argument

- (1) $P(E|K \ \& \ \sim D) \approx 0$
- (2) $P(E|K \ \& \ D) \gg 0$
- (3) $P(D|K) \gg P(E|K \ \& \ \sim D)$
- $\therefore P(D|K \ \& \ E) \gg 0$

On the likelihood version, the conclusion is more modest – not that a designer probably exists, but that whatever one’s personal probability was for there being a designer prior to discovering the evidence of design, one should revise one’s personal probability upward in light of the new evidence.² That is, on the likelihood version, premises (1) and (2) of the generic Bayesian version are effectively conjoined to form an inequality: $P(E|K \ \& \ D) \gg P(E|K \ \& \ \sim D)$. Meanwhile, premise (3) is not asserted, and the conclusion is simply that $P(D|K \ \& \ E) \gg P(D|K)$.

Lastly, classical statistical versions of the design argument attempt to rule out non-design hypotheses on the grounds that the probability of the evidence conditional on any of them is extremely low. In effect, the sole premise retained from the generic Bayesian design argument is (1). The conclusion that a designer exists supposedly follows simply from the fact that the design hypothesis D is the only remaining alternative – the last hypothesis standing. We can make this inference, according to proponents of this version, without any formal reference whatsoever to $P(E|K \ \& \ D)$.³

How do these points connect with the ‘Why design?’ question? Well, the question ‘What is the probability of E given K and D?’ is answered differently

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depending on which form of inference is used in a given design argument. With Bayesian versions, the answer is 'high.' With likelihood versions, the answer is 'higher than the probability of E given K and the denial of D.' And with classical statistical versions, no answer needs to be given. But the 'Why design?' question just is the question of why we should believe that the probability of E given K and D is high. Since only on Bayesian versions is it asserted that the probability of E given K and D is high, it is only Bayesian versions of the design argument that interest us in this chapter. The 'Why design?' question simply does not arise for classical statistical versions of the design argument.

The 'Why design?' question also does not arise for likelihood versions, but for a more subtle reason. Someone advancing a likelihood version of the design argument can always dodge the 'Why Design?' question by simply stipulating without further argument that among the putative designer's characteristics is a set of desires guaranteed to render probable the particular evidence of design on offer. Graham Oppy nicely articulates the problem with this approach in the following comments on the Bayesian design argument from cosmic fine-tuning for life.

[I]t is not immediately obvious to me that the probability adverted to in the second premise [$P(E|K \ \& \ D)$] should be said to be 'quite high.' Given only the hypothesis that there is an intelligent designer of a universe – and given no further assumptions about the *preferences* of that designer – it is not clear to me that there is very much that one can conclude about the kind of universe that the designer is likely to produce. Moreover, it is not obvious that one can meet this alleged problem by 'bulking up' the hypothesis of design, that is, by adding claims about the preferences of the designer to the hypothesis that there is an intelligent designer, since, at least *prima facie*, it seems plausible to suppose that any such additions will drive down the *a priori* probability that the hypothesis in question is true.

(Oppy, 2006, p. 207)

Oppy is pointing to a basic dilemma facing any Bayesian version of the design argument. Attributing, without any justification, the property 'having a desire to design' to the designer drives down the prior probability of the design hypothesis and thus puts pressure on premise (3) of the generic Bayesian design argument. Not attributing the property 'having a desire to design' to the designer drives down the conditional probability of the evidence of design on the design hypothesis and thus puts pressure on premise (2). It is this basic dilemma that makes the 'Why design?' question so pressing for the proponents of any Bayesian design argument.

This dilemma, however, will not confront any likelihood version of the design argument, since such a version does not include premise (3).

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Remember, likelihood versions only try to get us to revise our beliefs in light of the evidence of design. They merely tell us that the probability we assign to D ought to be higher than it was before we considered E, not that it should be high. What the prior probability, and hence the posterior probability, for D should be is not something with which proponents of the likelihood version are concerned. Nothing intrinsic to likelihood versions forbids the ‘bulking up’ move mentioned by Oppy, and so the ‘Why design?’ question is not forced upon those advancing likelihood design arguments.⁴ Only on Bayesian versions does the ‘Why design?’ question force itself.⁵

Before we proceed, a note is in order about the design argument and the design hypothesis as they are typically presented by contemporary philosophers. The ‘official’ story of the design argument – the story philosophers typically give when covering arguments for the existence of God in their introductory textbooks – has it that the design argument is only the first stage in a two-stage argument to the existence of God. Call these stages ‘the existence stage’ and ‘the identification stage.’ In the existence stage, arguments are given for the existence of an otherwise-unspecified supernatural intelligent designer. In the identification stage, further arguments are given for identifying that designer with God.⁶ Other classic arguments for the existence of God – for example, the cosmological argument and the moral argument – also supposedly follow this two-stage process. In all three cases, the ‘official’ strategy is first to prove the existence of a being partially matching the standard description of God (‘first cause of the universe,’ ‘necessarily existing concrete being,’ or ‘ultimate standard of morality’) and then to mount further arguments for thinking any being meeting that description would be God. It is this first step that is the design argument proper, or the cosmological argument proper, or the moral argument proper. As we will see, however, deviation from the ‘official’ script is rampant in the literature on the design argument.

2 Non-philosophers on the ‘why design?’ question

Most of that literature was not written by trained philosophers. Physicists, biologists, theologians, lawyers, journalists, and even economists have entered the fray. Indeed, in terms of books sold, articles read, television programs viewed, radio programs heard, and Internet sites visited, the non-philosophers surely dominate the market. Thus if the ‘Why design?’ question is largely ignored, this can perhaps be attributed to a general lack of philosophical sophistication amongst the bulk of contributors to the literature. Still, a few of the non-philosophers address the ‘Why design?’ question in their work.⁷ What do they say?

In a three-page chapter entitled ‘The Expectations,’ physicist Stephen Barr (2003) sets up the question of which set of expectations – the atheist’s or the theist’s – current science supports, with the next chapter showing

that the evidence of fine-tuning confirms the theist's expectations and disconfirms the atheist's. In most of 'The Expectations' Barr documents the claim that atheists expect a pointless universe in which humans are unimportant. He spends just one paragraph (the first) discussing what kind of universe we would expect if God existed. He concludes that paragraph by saying 'from the religious perspective, it can be said that it was partly for the sake of the existence of rational, free creatures such as ourselves that God created the universe' (Barr, 2003, p. 115). But in that same paragraph, he equates 'the religious perspective' with the perspective of Jews and Christians. The question of why, exactly, we should expect a universe with rational, free creatures from God – aside from the fact that this is what Jews and Christians traditionally believe – is never taken up. Barr simply presupposes Judeo-Christian theology in answering the 'Why design?' question.

Kenneth Miller does the same. Miller, a cell biologist, addresses the question of what kind of world we might expect God to create. His focus, however, is really on the more specific question of whether we might expect God to create a world in which evolution operates given that God wants to create a world in which free, rational creatures exist.

All of the Western monotheistic religions maintain that God brought the universe into being, that He intended to create creatures deserving of a soul, and that He wished that universe to be a place in which those creatures had a truly free choice between good and evil, God and darkness. Given those theological basics, let's see where we can go.

(Miller, 1999, p. 249)

Miller's 'theological basics' are essentially the same as Barr's. Like Barr, Miller never seriously questions them.

Rodney Holder, formerly an astrophysicist and now an ordained minister in the Church of England, addresses the question of the probability of the evidence (E_1) that a fine-tuned universe exists on the hypothesis (H_3) that there is a designer, assumed for the sake of argument to be something like the Christian God (Holder, 2004, p. 93). Note that the notations E_1 and H_3 are Holder's, not mine. He consciously frames the design argument from fine-tuning as a Bayesian inference, and so is no doubt aware of how crucial it is to support the claim that would be premise (3) of a Bayesian design argument: $P(E_1|H_3) \gg 0$. Here is what he says.

It is harder to judge, given a designer, what the probability is that he would create a fine-tuned universe. But if the designer is something like the Christian God, we would expect him to exercise his creativity, and we would expect him to do so by creating as 'interesting' a universe as possible, so most likely a universe with life – a universe containing life might

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well be a good which God would will to bring about. The probability of E_1 given H_3 will then be high, let us say $P(E_1|H_3) = 0.9$.

(Holder, 2004, p. 99)

Here Holder's answer to the 'Why design?' seems a bit less orthodox than that of Barr and Miller. For Holder, the creation of a fine-tuned universe is to be expected from any designer like God, not specifically because a fine-tuned universe is a prerequisite for the existence of free, rational beings, but more generally because a fine-tuned universe is as 'interesting' a universe as possible and God would want such a universe to exist. Holder presumes a universe containing life is very 'interesting' and so concludes God would probably create a life-friendly universe. Why we should expect God to be interested in creating an 'interesting' universe is never explained.

Lastly, paleontologist and noted science essayist Stephen Jay Gould raises the 'Why design?' question, but only to respond to it with a host of other questions – his point being that there is no way to answer them.

If disembodied mind does exist (and I'll be damned if I know any source of scientific evidence for or against such an idea), must it prefer a universe that will generate our earth's style of life, rather than a cosmos filled with diprotons? What can we say against diprotons as markers of preexisting intelligence except that such a universe would lack any chroniclers among its physical objects? Must all conceivable intelligence possess an uncontrollable desire to incarnate itself eventually in the universe of its choice?

(Gould, 1998, p. 190)

Notice the general skepticism about the very idea of disembodied mind. This is a theme that will emerge from the philosophers critical of the design argument. Notice also the skepticism regarding the value judgment of Barr and Miller that, other things being equal, it is much better for a universe to have intelligent observers in it than not.

In each case, the passage quoted represents the maximal engagement of the author with the 'Why design?' question. In each case, this maximal engagement is only a paragraph. And these were the only cases I could find of non-philosophers engaging with the 'Why design?' question in any way. Since I do not know that the authors in my sample represent the entirety of non-philosophers writing on the design argument, the following suggestions are only tentative. First, amongst non-philosophers, the 'Why design?' question is largely overlooked by both proponents and critics of the design argument. Second, the answer to the 'Why design?' question is taken by non-philosophers writing in favor of the design argument to be a theological question – a question about God in particular rather than supernatural designers in general. Only Gould, the skeptic in this case, treats the design

hypothesis to be about 'disembodied mind' in general rather than God in particular. Apparently the non-philosophers are just not interested in the 'official' script for the design argument, because they almost all present the inference from design in nature to God as direct. Third, the non-philosopher proponents of the design argument regard the answer to the theological question 'Why would God design a world like ours?' as obvious enough that it needs little or no reply. A wave of the hand to 'theological basics' is sufficient to dispense with the question. These 'theological basics,' moreover, seem to be drawn from revealed – as opposed to philosophical or 'natural' – theology; Barr refers to 'the religious perspective,' Miller to 'the Western monotheistic religions,' and Holder to our conception of the Christian God. This is in violation of the rule that no design argument should presuppose the truth of any particular scripture or religion (on the grounds that to do so would beg the question). Finally, the non-philosopher critics of the design argument regard theological questions such as 'Why would God design a world like ours?' as beyond their competence at best and meaningless at worst, and find the very idea of a disembodied mind's acting in or on this world to be very strange, if not incoherent. This explains why such critics typically just move on to other questions and issues when criticizing the design argument.⁸

3 Philosophers critical of the design argument on the 'why design?' question

When we turn to the writings of professional philosophers, we find a slightly different pattern. With one notable exception (Richard Swinburne), those promoting the design argument tend to offer no more in answer to the 'Why design?' question than do their non-philosopher counterparts. On the other hand, those critical of the design argument do raise the question, but only to argue that we humans have no way to answer it. Their answer to the 'Why design?' question is that $P(E|K \& D)$ is inscrutable, not that it is low. As with my conclusions about the non-philosophers, I do not know whether my sample of philosophers is representative, so the generalizations I draw in the two sections below are advanced only tentatively. Since it is the philosophers critical of the design argument who most often engage the 'Why design?' question, let us begin with them.

The thrust of Jan Narveson's argument for the unanswerability of the 'Why design?' question is that the lack of limits on putative universe-designers – 'bodiless minded super-creators,' he calls them (Narveson, 2003, p. 99) – removes any basis we might normally have for answering questions about an agent's methods and motivations. For example, he regards William Paley's famous 'watchmaker' analogy as flawed because humans have an obvious need to tell time, but a designer has no obvious need for a universe. 'In the absence of any possible use for a watch, the hypothesis that humans must

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have invented them is not plausible,' he argues (Narveson, 2003, p. 92). 'In the absence of any motive for creating a universe, we likewise have no explanation of the Universe in the hypothesis of a creator.'

In response, the proponent of the design argument may argue that we surely have *some* insight into the motives of a putative designer because we know some designers – namely, ourselves. We can infer human design without knowing exactly what the human designer's motives were, so we can do the same with supernatural designers. Narveson anticipates this response, claiming that behind the inference to human design is considerable knowledge about humans, but that we have no such knowledge of supernatural designers and no way of getting it. '[W]e have, again by hypothesis, no independent mode of verification or source of information,' he says (Narveson, 2003, p. 95). 'The inference to gods is pure, in the sense that there is no independent way of observing the entities being invoked, nor any processes by which their motives or ways of doing things may be understood.' In this position, the 'Why design?' question is unanswerable.

.... in order for the [design] explanation to have any content, we need to know something that is not often addressed: *why* is this being supposed to have done this? Consider that a being of this type already knows everything there is to know, so he can hardly have created the world to satisfy his curiosity. And since he has no body, no senses, and no needs in any usual sense of the word, where are we to get the psychological premises we would require in order to make an inference to his creative activity plausible?

(Narveson, 2003, p. 96)

Narveson goes so far as to suggest that the design hypothesis is consistent with the existence of any possible universe. 'No matter what the Universe is like, it could have been created by a super-creator who, for some utterly unknowable reason, just wanted to create one of those, precisely the way it is' (Narveson, 2003, p. 97).

Elliott Sober gives essentially the same argument for thinking the 'Why design?' question is unanswerable (Sober, 2003, pp. 38–41). We need evidence of 'the goals and abilities of the putative designer' for the design argument to work. In order for the argument not to be question-begging, this evidence must be independent of the assumption that the allegedly designed feature of the world (for example, the vertebrate eye) was in fact designed and is thus 'special' in some way. But, by the nature of the case, we can have no such evidence.

When we behold the watch on the heath, we know that the watch's features are not particularly improbable on the hypothesis that the watch was produced by a designer who has the sorts of *human* goals and abilities

with which we are familiar. This is the deep and nonobvious disanalogy between the watchmaker and the putative maker of organisms and universes. We are invited, in the latter case, to imagine a designer who is radically different from the human craftsmen we know about. But if this designer is so different, why are we so sure that he would build the vertebrate eye in the form in which we find it?

(Sober, 2003, pp. 38–9)

One specific disanalogy between the inference to a human designer on the one hand and the inference to a supernatural designer on the other is that human designers are biological beings. Knowing that some minded being is a material thing produced by an evolutionary process, Sober suggests, actually provides us with a background of knowledge from which we can estimate the probabilities of various bits of evidence conditional on the existence of that minded being. This is the point of Sober's discussion of SETI, the Search for Extraterrestrial Intelligence (Sober, 2003, pp. 39–41).

I suspect that SETI engineers are on much firmer ground than theologians. If extraterrestrials evolved by the same type of evolutionary process that produced human intelligence, that may provide useful constraints on conjectures about the minds they have. No theologian, to my knowledge, thinks that God is the result of biological processes. Indeed God is usually thought of as a *supernatural* being who is radically different from the things we observe *in* nature. The problem of extraterrestrial intelligence is therefore an intermediate case, lying somewhere between the watch found on the heath and the God who purportedly shaped the vertebrate eye (but much closer to the first). The upshot of this point for Paley's design argument is this: *Design arguments for the existence of human (and human-like) watchmakers are often unproblematic; it is design arguments for the existence of God that leave us at sea.*

(Sober, 2003, pp. 40–1)

Note that in this passage Sober switches to talking about God and theologians rather than otherwise-unspecified designers and the psychology of them. Sober himself acknowledges this (Sober, 2003, p. 41). This supports the claim that, even amongst philosophers, not many follow the 'official' script for the design argument throughout their discussions.

Other philosophers critical of the design argument go a bit farther even than Narveson and Sober, arguing that we not only cannot know the preferences of a supernatural designer, but that the very idea of a supernatural designer is incoherent. For example, Niall Shanks says that before we even consider evidence in favor of the design hypothesis, 'we must minimally ensure that the claim is meaningful' – which it is not, he thinks. Shanks suggests the idea of a supernatural mind affecting the natural world is

'incoherent babble,' as meaningful as a science fiction story according to which 'Captain Shanks . . . hit the accelerator on the snagglefarg drive, thus warping his ship into Jabberwocky space' (Shanks, 2004, pp. 213–4). Presumably, Shanks thinks the idea is incoherent for all the standard Philosophy 101 reasons materialists think dualistic interactionism is incoherent. However, Shanks also advances the weaker claim of Narveson and Sober against the design argument – that the design hypothesis just does not predict anything. 'In the case of supernatural intelligent designers of unknown constitution using unknown methods and materials to unknown ends,' he says (Shanks, 2004, pp. 170–1), 'we have neither independent evidential warrant nor even mere explanatory utility.' Again, 'Postulating a supernatural designer (assuming it even makes sense to do so) requires the introduction of a new type of object and causality into science: supernatural causes and supernatural objects,' he says (Shanks, 2004, p. 219). 'These latter are matters we know absolutely nothing about.' Shanks thinks his brief against the design argument gets by on the weaker claim that the empirical consequences of the design hypothesis are inscrutable. The claim that the design hypothesis is incoherent is icing on the cake.

Generalizing from the cases of Narveson, Sober, and Shanks, we can say first that philosophers who are critical of the design argument and who take up the 'Why design?' question (not that there are many such philosophers) typically presuppose a naturalist or materialist theory of mind and lean toward the position that substance dualism is incoherent. They just cannot make sense of the idea of a being's having beliefs, desires, goals, and preferences apart from its existing embodied and navigating a physical environment. This is why, for example, Narveson (2003, p. 99) says 'bodiless minded super-creators are a category that is way, way out of control,' whereas Sober (2003, p. 41) thinks even the mere fact of their being material things that were produced by an evolutionary process constrains our expectations of extraterrestrials. Second, these critical philosophers assume the design hypothesis has substance dualism built into it. Narveson, Sober, and Shanks (as well as Gould) all think the designer being argued about has to be a disembodied mind to do the explanatory job it is supposed to do. Third, setting aside whether the design hypothesis is even coherent, they just do not see any reason to think a supernatural intelligent designer would create a universe like ours or create specific structures within the universe.

4 Philosophers promoting the design argument on the 'why design?' question

Let us now turn to philosophers who promote the design argument, beginning with Robin Collins. He formulates the fine-tuning design argument as a likelihood argument. The conclusion is merely that 'the fine-tuning

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data provide strong evidence to favor the design hypothesis over the atheistic single-universe hypothesis' (Collins, 1999, p. 53), not that the design hypothesis is probably true. Still, his argument is of interest here because the first premise of it is that 'the existence of the fine-tuning is not improbable under theism' (Collins, 1999, p. 53). What is his support for this premise – the premise that $P(E|K \ \& \ D)$ is much greater than zero? He addresses this question in a section of the paper entitled 'Support for the Premises.'

Premise (1) is easy to support and fairly uncontroversial. One major argument in support of it can be simply stated as follows: *since God is an all good being, and it is good for intelligent, conscious beings to exist, it is not surprising or improbable that God would create a world that could support intelligent life.* Thus, the fine-tuning is not improbable under theism, as premise (1) asserts.

(Collins, 1999, p. 54)

This is all Collins has to say about the matter. We see here the same pattern in Collins that we saw with the non-philosopher supporters of the design argument. The design argument is actually treated as an argument in support of theism, and so the 'Why design?' question is a question about what God would be expected to do. Furthermore, the answer to it is 'easy to support and fairly uncontroversial' – indeed, so uncontroversial that the answer only runs one sentence.

William Dembski is also a philosopher by training. In the very last section of (Dembski, 1999) he gives an answer to the 'Why design?' question. As with Collins and almost all of the non-philosophers who advance the design argument, he treats this as a question about what God would be expected to do.

In closing this chapter I want to ask an obvious question. Why create? Why does God create? Why do we create? Although creation is always an intelligent act, it is much more than an intelligent act. The impulse behind creation is always to offer oneself as a gift. Creation is a gift. What's more, it is a gift of the most important thing we possess – ourselves. Indeed creation is the means by which a creator – human, divine, or otherwise – gives oneself in self-revelation. Creation is not the neurotic, forced self-revelation offered on the psychoanalyst's couch. Nor is it the facile self-revelation of idle chatter. Creation invests the creator's life in the thing created. When God creates humans, he breathes into them the breath of life – God's own life. At the end of the six days of creation God is tired – he has to rest. Creation is exhausting work. It is drawing oneself out of oneself and then imprinting oneself on the other.

(Dembski, 1999, p. 234)

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Theological questions abound. If God is omnipotent, then how can he ever get tired and need rest? And how is it a gift to make a person exist (rather than to give something to a person who already exists)? The silence makes the point. The author treats the 'Why design?' question as an afterthought – something to be tacked on at the end of the book rather than addressed at the very beginning.

It is somewhat misleading to characterize philosopher John Leslie as advancing the design argument, for the conclusion he favors drawing from the evidence of fine-tuning is that there exist 'creative ethical requirements' – platonic entities that nonetheless have quasi-causal efficacy – responsible for the existence of the universe. Leslie prefers a neoplatonic picture (one whereby the universe exists simply because it is good that the universe exists) over the traditional design picture (one whereby the universe exists because a person, possibly God, selects the universe for creation after recognizing that it is good that the universe exists). Indeed, Leslie suggests identifying God with the creative ethical requirement, meaning God is just our name for an abstract entity.⁹ Nonetheless, in various writings of his Leslie does address the question of why God would design a universe. Here is a representative answer.

The argument from design is really an argument *to* divine design from alleged signs of it. The idea is that the cosmos, as we can see by examining it, was selected for creation to serve a divine purpose, a purpose at least partially understandable because it is good. Leibnizian richness does enter into most people's thoughts about goodness. It is believed that a cosmos serving a divine purpose would have beauty, grandeur, etc.; but more basic, typically, is the belief that the cosmos would be good *through containing intelligent living beings*. I think that makes excellent sense.

(Leslie, 2003, pp. 55–6)

Leslie devotes the rest of the paragraph to defending the claim that a universe displaying Leibnizian richness is intrinsically good, but only if that goodness is experienced from the inside – only if there are intelligent beings within that universe. Given the (unstated) premise that any divine being can be expected to create the good, we can conclude that God would be quite likely to create a universe well suited for the existence of intelligent observers.

Notice, however, that Leslie only comes up with an answer to the 'Why design?' question by assuming that the designer of interest is divine and that a divine being can be expected to create the good. I suspect Leslie allows his neoplatonism to seep in here when making the second assumption. If 'God' is just our name for the creative ethical requirement, and creative ethical requirements are truly requirements, then God *must* create the good, and so *a fortiori* God can be expected to create the good. But that argument is

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never really spelled out by Leslie, nor does he give reasons why God should be expected to create the good if the existence of intelligent living beings is not ethically required. Notice also that Leslie only comes up with an answer to the 'Why design?' question by assuming that the designer is divine rather than merely supernatural, very intelligent, and very powerful. Once again we see a philosopher indicating by his response that he thinks the only way to answer the 'Why design?' question is to depart from the 'official' script for the design argument by equating the design hypothesis with theism.

Lastly, we have Richard Swinburne, who gives a detailed Bayesian design argument (Swinburne, 2003), where E is the evidence of cosmic fine-tuning for life and D is the hypothesis that God exists.¹⁰ He takes up the 'Why design?' question in an eight-page section entitled 'Why a world with human bodies is likely if God exists.' The short version of his argument is this: (i) it follows from God's nature that He will try to bring about a great amount of the greatest sort of good; (ii) bringing about a great amount of the greatest sort of good requires bringing about the existence of free beings; (iii) free beings need an arena in which to develop morally and interact socially; and (iv) this arena requires the creation of a fine-tuned and law-governed universe. Let us focus here on premise (i). A key move in his argument for this premise actually occurs in an endnote (Note 8), so both the passage and the endnote are included below.

So our question must be – in so far as it is logically possible for God to determine what sort of a world there shall be, what sort of a world will He bring about?(8) A perfectly good being will try to realize goodness as much as He can. So in so far as there is a unique best possible world, God will surely make it. If there is no one best of all possible worlds but a number of incompatible equal best worlds, He will surely make one of them. But if every possible world is less good than some other incompatible possible world, all that He can do in virtue of His perfect goodness is to create a very good world.

(Swinburne, 2003, pp. 107–8)

(8) In Plantinga's terminology, the question is what kind of a world God will 'strongly actualize' (Plantinga, 1974, p. 173). I use the word 'world' to include all that exists apart from God, and its way of behaving – whether (in part or totally) indeterministic or determined by its intrinsic powers and liabilities to act codified in natural laws. A world may or may not include many universes. Possible worlds are, however, to be individuated, as stated in the text, only by those features which it is logically possible for an omnipotent being to bring about. In this terminology (which is not standard) a world counts as a possible world if God given only His omnipotence and not His other properties could bring it about.

(Swinburne, 2003, p. 121)

Swinburne's argument rests on the claim that a perfectly good being will try to bring about the most good it can. In God's case, bringing about the good means actualizing a possible world. But notice how Swinburne defines 'possible world' – as including 'all that exists apart from God.' Swinburne admits that this terminology is not standard, and indeed it is not. On the standard definition of 'possible world,' possible worlds *include* God. They are maximal states of affairs, including necessary states of affairs as well as contingent ones (Plantinga, 1974, pp 44–5). Indeed, this conception of possible worlds is indispensable for the standard theological account of what it is for God to exist necessarily.¹¹ So Swinburne's argument that $P(E|K \ \& \ D)$ is high – that we can expect God to create a universe that is fine-tuned for the existence of intelligent life – depends on the non-standard definition of 'possible world' as 'possible divine creation' rather than 'possible maximal state of affairs.' Allowing Swinburne this move, the rest of his argument relies on standard theological claims: that God is perfectly good, that a perfectly good being would create the best possible world it could, and that having free, embodied beings in it is part of what makes the best world (or any of the best worlds) a very good world. Almost alone amongst philosophers defending the design argument, Swinburne clearly recognizes the importance of the 'Why design?' question and works hard to answer to it.¹²

Generalizing from the cases of Collins, Dembski, Leslie, and Swinburne, it seems that, in practice, even philosophers who advance the design argument and take on the 'Why design?' question (not that there are many such philosophers) do not follow the 'official' script. They do not think of the design argument as an argument for an otherwise-unspecified designer. They think of it as an argument for theism. Perhaps they think this because they think the only way to answer the 'Why design?' question is to make it a theological question. If this is what they think, however, then it is curious that they do not invoke the literature in philosophical theology addressing the questions of why God would create anything at all and of why God would create a world like the one we observe. Even Swinburne, in the section 'Why a world with human bodies is likely if God exists' (Swinburne, 2003, pp. 107–14), makes no reference to this literature. Overall, it seems that most philosophers advancing the design argument simply fail to take the 'Why design?' question seriously.

5 How to address the 'why design?' question more profitably

The preceding literature survey reveals that a crucial premise in the Bayesian version of the design argument is generally neglected by all sides. How to remedy this situation? To make sure the 'Why design?' question comes up, it would help if anyone either advancing or criticizing a Bayesian version of the design argument were to address the following set of clarifying questions.

5.1 Does the design argument in question follow the 'official' script?

If so, proceed to question 2. If not, then the design argument in question is presumably a direct argument for the existence of God, and since God is immaterial, it is an argument that requires that substance dualism be coherent. In that case, skip ahead to question 4.

5.2 Is the design hypothesis being advanced exclusively about supernatural beings?

As we originally stated it the design hypothesis is the hypothesis that there exists a *supernatural* intelligent designer. However, according to some authors, the design hypothesis would be true if it turned out that some other material beings were responsible for the evidence of design. Michael Behe suggests as possible designers 'space aliens from Alpha Centauri,' for example (Behe, 2003, p. 277). The hypothesis of the existence of such a 'natural' designer might explain the evidence of design when that evidence is not some fact about the universe as a whole (for example, that its fundamental physical parameters are fine-tuned for life) but rather some particular fact about the arrangement of matter within the local part of the universe (for example, that certain organisms on this planet are 'irreducibly complex'). An example of such a hypothesis is the 'directed panspermia' idea of Francis Crick and Leslie Orgel – 'the theory that organisms were deliberately transmitted to the earth by intelligent beings on another planet' (Crick and Orgel, 1973, p. 341).

If natural designers are an option for the design argument, we could perhaps gain independent insight into their preferences and motives for the reasons Sober gave in connection with SETI, and so we might have a way to answer the 'Why design?' question. The possibility of a natural designer generally gets neglected in the literature on the design argument, however, and rightly so. On the 'official,' two-stage version of the design argument, it must at least be possible for the designer inferred at the first stage to be identified with God at the second stage, but that seems impossible if the designer is a natural, embodied entity and God is an immaterial spirit. In the context of the 'official' design argument, then, it seems right to proceed on the assumption that the designer in question is a supernatural being.

5.3 Does the design argument require that substance dualism be coherent?

It may seem obvious that substance dualism would have to be true for the supernatural design hypothesis to be true. Some precision is in order here, however. To say that a supernatural intelligent designer exists is just to say that there exists an intelligent designer that is outside *this* order of nature, outside of *this* universe. Might a supernatural intelligent designer occupy its own natural order and be a natural mind within that natural order rather

than be a pure spirit? This possibility has in fact been suggested by several physicists. They think we might create a black hole in the laboratory and thereby create another universe (Krulwich, 2006), and they entertain the thought that our universe might itself be the product of an experiment by some scientist from another universe (Holt, 2004). Such a scientist would seem to count as a supernatural intelligent designer, though a material one. This scenario is consistent with the denial of substance dualism. There would be one kind of stuff – matter – and minds would necessarily be material things. Yet minds in one universe could give rise to other material universes. [Philosophers will have grave problems with causal interactions between universes, but the physicists do not seem to be bothered by the idea.] Whether those creations would subsequently be inaccessible to their creators is an open question. Andrei Linde (Krulwich, 2006) worries that the creator would be unable to communicate with the inhabitants of the universe it created, but he also suggests (Holt, 2004) that making the created universe just right for life ('manipulating the cosmic seed in just the right way') could itself count as a communication to certain of its inhabitants – namely, the physicists!

The physicists who broach this idea almost always raise the 'Why design?' question, although in this case the question they ask is not 'Why would a designer make our universe?' but 'Why would *we* design *some other* universe?' Maybe the 'Why design?' question arises more naturally when we put ourselves in the role of the creator, or maybe physicists are more prone to ask obvious philosophical questions than philosophers are. In any case, the problem with the hypothesis of a supernatural material designer is the same as the problem with the hypothesis of a this-worldly natural designer. Insofar as the supernatural physicist is a material being living in a world with laboratory instruments such as particle accelerators, it cannot be identified with God. Thus the possibility of supernatural material designers cannot be considered within the first stage of any 'official' design argument. The design hypothesis will have to be the hypothesis that a supernatural *immaterial* intelligent designer exists. In order for that hypothesis even to be capable of confirmation, substance dualism will have to be coherent.

5.4 Assuming the design argument requires the coherence of substance dualism, is substance dualism in fact coherent?

Would-be critics of the design argument who answer 'yes' or 'maybe' should move on to (5). But those who answer 'no' would greatly help the discussion of the design argument – both in the academic arena and in the public arena – if they would just come out and say that the design argument is a non-starter. As we saw in section III of this chapter, design critics such as Shanks believe that substance dualism is incoherent and that only naturalistic theories of mind make sense. If they believe this, they should just

announce that the design argument is an argument to an impossible conclusion and be done with it. Their refutations of the design argument would only be a matter of a few paragraphs. Perhaps this is what most of the critics *do* think. It would explain their impatience with the design argument – an impatience that shines through the writing of Shanks, Narveson, Gould, and many others.

Why do design critics not respond in this way? Here are two possible reasons. First, they might worry that it would be a very bad public relations move. Typically books seeking to refute the design argument are directed towards the general public – rightly so, since much of social and political consequence hangs on the success or failure of the design argument. Yet most ordinary citizens are dualists. Resting one's objections to the design argument on a contrary theory of mind is a guarantee of poor book sales and a recipe for defeat in the raging battles over 'intelligent design.' Second, presupposing the incoherence of substance dualism is just not very satisfactory philosophically. It makes the status of the design argument hang on a much deeper debate – a debate that itself divides philosophers in a way that somewhat overlaps with the pro-design/anti-design split. So even if the only concern of the critics is to address the philosophical community, resting their case on the incoherence of substance dualism is unlikely to change any minds. 'Better I show flaws in the evidence, or alternative explanations of the evidence,' think critics to themselves, 'than rely on a view of mind that turns off the general public and already divides philosophers into hardened camps.'

5.5 What basis is there for attributing the relevant desires and preferences for designing to an otherwise-unspecified supernatural immaterial intelligent designer?

For design critics Oppy, Gould, Narveson, Sober, and Shanks, the answer is 'none.' Design proponents, meanwhile, always seem to address (6) rather than (5). The basic problem is that answering (5) requires 'bulking up' the design hypothesis, yet the 'bulking up' strategy confronts any Bayesian design argument with the dilemma mentioned in section I of this chapter. This is an intractable problem for any Bayesian design argument and therefore a good reason to give up on the 'official' script for one. A key lesson of this chapter is that the design hypothesis needs to be the hypothesis that the most perfect being exists for any Bayesian design argument even to get off the ground. From the concept of a perfect being, we can deduce the properties of moral perfection and omniscience. Starting with the concept of a being that is morally perfect and omniscient gives us at least some prospect of figuring out what that being is apt to do. This approach does not beg the question so long as those engaged in it fill out their concept of the most perfect being with the help of philosophical or 'natural' theology rather than revealed theology.

5.6 Why think the most perfect being would design? What could the purpose be?

Spinoza thought the answer was 'none,' arguing that the idea of an absolutely perfect being's having preferences and desires is incoherent. He claimed that 'if God acts with an end in view, he must necessarily be seeking something that he lacks' (Spinoza, 1982 [1677], p. 59). If an allegedly perfect being acts to fulfill a goal or purpose, the being must be incomplete and, thus, imperfect. Other philosophers skeptical of the design argument are more modest. Tim Mawson accepts the coherence of the idea of God's designing something but claims to see no reason why God would do so.

[W]hat reason *could* God have to create anything (a lifeless universe; a universe fine-tuned for life; a set of non-physical angelic beings; anything)? Being God, it's not as if any of these things could fulfil some previously unsatisfied need of His and their not existing prior to His creating them means that they themselves could hardly be said to have previous requirements met by their being created. . . . This is not to suggest that God could not have created the World because it would have been positively *unreasonable* for Him to do so. Sometimes, we do things for no reason at all and this doesn't make our doing them *unreasonable*. But it is to suggest that the best account on Theism might well be that whilst God's free choice explains why this universe exists, that God made this choice, rather than another, is something for which there is no explanation.

(Mawson, 2005, p. 149)¹³

In support of Mawson's point, observe that, contrary to Swinburne, possible worlds are not the same things as possible creations. Possible worlds include God, whereas possible creations are simply possible worlds considered apart from all of the necessary beings (concrete or abstract) existing in them. A world consisting of God alone (plus universals/abstract objects such as sets, propositions, and so on) seems to be a possible world. Indeed, Christian theists are committed to the idea that a world consisting of God alone is a possible world, given that they believe God is the free creator *ex nihilo* of all contingent concrete entities. To say that God might not have created anything is just to say that there is a possible world consisting of God alone. What would be wrong with that world? Nothing, apparently. Indeed, it is quite plausible to think that if God is the greatest conceivable being, then a world consisting of God alone is the best of all possible worlds (with no other worlds even tied for the best). If Swinburne is right that 'in so far as there is a unique best possible world, God will surely make it' (Swinburne, 2003, p. 107), God will make it be the case that nothing but God exists. God will design nothing and create nothing. And assuming it is unreasonable for God to do anything less than the best, then (contrary to Mawson) it would

indeed be positively unreasonable for God to create.¹⁴ Even if we do not go this far, however, it is hard to see how a world consisting of God alone could be in anything less than a first-place tie for the title 'best possible world.' That, in itself, is enough to think there is no good answer to (6).

However the proponent of a Bayesian design argument decides to respond to (6), that answer should be developed in light of the relevant literature in philosophical theology. Two strands of discussion seem particularly relevant. The first (and smaller) strand addresses the questions of whether God should be expected to create anything at all and, if so, why God would create a world like this one. The richest contributions to these questions in the literature are from Norman Kretzmann (Kretzmann, 1991a, 1991b, 1999), who addresses them from a Thomistic perspective. Other philosophers who have tackled the question of why God would create anything at all include (Teske, 1988) and (Nozick, 1989, pp. 217–35). The second, larger strand addresses the questions of whether there is or is not a best of all possible worlds and what implications the answer to this question has for traditional doctrines such as divine moral perfection and divine freedom. The seminal paper in this area is Adams (1972). It has given rise to a host of replies; the bibliography in Rowe (2004) gives a thorough and up-to-date catalogue of the relevant literature.¹⁵ Both strands involve tackling profound philosophical questions regarding the nature of the good as well as the conflict between freedom and necessity. For various reasons, almost all of the participants in the current debate over the design argument dodge these profound philosophical questions. I hope this chapter serves as a call to action for philosophers addressing the design argument: start doing theology.¹⁶

Notes

1. In earlier work I described the last sort of inference as 'Fisherian' or as a 'significance test' inference. The description 'classical statistical' is due to Graham Oppy. For explication of all three of these options, see Manson (2003, pp. 5–8) and Oppy (2006, pp. 202–16).
2. For a full presentation of the likelihood version, see Sober (2003). See also Oppy (2006, pp. 208–9) for criticism of the likelihood version.
3. For a defense of the classical statistical approach, see Dembski (1998). For a particularly trenchant criticism of the classical statistical approach, see Fitelson, Stephens, and Sober (1999). See also Oppy (2006, pp. 211–6).
4. Oppy talks of 'bulking up' the design hypothesis; Sober talks of conjoining various specific claims about the goals and abilities of a designer with the generic hypothesis that there exists an intelligent designer. Sober criticizes this tactic (Sober, 2003, pp. 41–2) for leading to argumentative dead ends and for violating the injunction that, when evaluating scientific hypotheses, we should break apart conjunctions and scrutinize the conjuncts separately. Since these considerations against the 'bulking up' move seem extrinsic to the likelihood approach, however, I stick by my claim that likelihood versions of the design argument do not confront the dilemma Oppy points to.

5. Readers can judge whether this is a virtue or a vice of Bayesian versions of the design argument.
6. One example of this 'official' account of the design argument is Peter van Inwagen's presentation of the design argument from cosmic fine-tuning for life (van Inwagen, 1993, pp. 132–3). The two-stage strategy is also illustrated in Alexander Pruss's contribution to this volume. See his reply to objection (iii) in section 4 of 'Programs, Bugs, DNA, and a Design Argument,' where Pruss makes clear that the conclusion of his argument is not that God exists, but just that a designer exists.
7. My sample of works by non-philosophers on the design argument consists of books in my private collection. None were purchased or copied with an eye towards their contribution to the points I am about to make. The sample includes works by physicists promoting the design argument (Barr, 2003), physicists hostile to the design argument (Stenger, 2003; Edis, 2002), biologists advancing the design argument from irreducible complexity (Behe, 1996), biologists critical of the design argument from irreducible complexity but supportive of the design argument from fine-tuning (Miller, 1999), paleontologists opposed to any version of the design argument (Gould, 1998), pro-design lawyers (Overman, 1997) and journalists (Glynn, 1997), and even pro-design economists (Greenhut and Greenhut, 2002). The list of recent popular books on the design argument could surely be lengthened tenfold, especially given the rate of production of such books since the controversy over 'intelligent design theory' burst into the U.S. national spotlight in 2005 with the *Kitzmiller v. Dover* case. Miller is an interesting case. Even though the main purpose of his book is to rebut thoroughly the design argument from irreducible complexity in biology, he endorses the design argument from cosmic fine-tuning for life later in the book in a section entitled 'Stacking the Deck?' (Miller, 1999, pp. 226–32).
8. Design critic Victor Stenger does engage with theology substantially in his work (Stenger, 2003, Chapter 11), but for the sake of drawing out the conflicts between (and amongst) theistic evolutionists and traditional theists, not for the sake of claiming there is no reason at all for God to create a world.
9. Leslie develops this neoplatonic picture in a host of his works, but the picture is directly connected with the design argument from fine-tuning in Leslie (1989).
10. Unlike the other pro-design philosophers we have seen, Swinburne justifies his neglect of non-theistic design hypotheses on the grounds that all of them are more complicated than, and so have lower prior probabilities than, the hypothesis that God exists (Swinburne, 2003, p. 107).
11. The standard account of the claim that God exists necessarily is that God exists in every possible world. However, some philosophers argue that God's necessary existence is merely the impossibility of being either caused to exist or caused to cease to exist – a property sometimes referred to as 'causally necessary existence.' The most notable proponent of the view that God's necessary existence is best understood as causally necessary existence and not logically necessary existence is John Hick (Hick, 1967).
12. Another such philosopher is Tim Mawson, who devotes several pages to the question 'Why think that a universe fine tuned for life would be more likely on the hypothesis that there is a God than it would be on the hypothesis that there is not?' (Mawson, 2005, p. 146). It is probably no coincidence, however, that Swinburne was Mawson's graduate advisor.

13. I did not know of Mawson's recent work until he called it to my attention in comments on the penultimate version of this chapter. In those comments, he agrees that there just is no adequate response to the 'Why design?' question in the literature. his second professional opinion supports the claim that the 'Why design?' question is largely neglected in the literature on the design argument.
14. Tim Chappell develops an argument on these very lines for the conclusion that if the God of orthodox Christianity exists, then no consequentialist ethical theory is true (Chappell, 1993). Leon Pearl thinks Chappell's argument suggests an argument for the non-existence of God from the existence of concrete contingent entities, and takes this result as a *reductio* of Chappell's argument (Pearl, 1994). Interestingly, Pearl concludes that, contrary to traditional Christian theism, God *must* create because if He does not, then He will not be able to express all of the virtues that a perfect being should possess.
15. Rowe's book itself is a testimony to the lasting interest in Adams's question amongst philosophers of religion. Rowe argues, controversially, that if there is just one best of all possible worlds, then God does not create freely, while if there is an infinite series of better and better worlds, then if God creates any world, God cannot be morally perfect.
16. I thank Tim Mawson and Robert Westmoreland for numerous helpful comments on the drafts of this chapter. I also thank Yujin Nagasawa and Erik Wielenberg for inviting me to contribute to this volume.

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