DESIGN ARGUMENTS

Related exam questions:

- 'Small changes in the strengths of the universe's main forces would have made the evolution of life impossible.' If true, does this provide grounds for belief in God? (2001/1)

- Might there be a universe whose orderliness gave good grounds for belief in God? Is ours such a universe? (2002/2)

- Does a scientifically respectable understanding of the natural world leave room for the possibility that it was designed by God? (2006/2)

- If the universe had been even slightly different, life would have been impossible. What bearing, if any, does this have on the probability of God's existence? (2008/3)

- Current cosmology suggests that the universe is 'fine-tuned' for the production of our sort of life. Is this evidence that God exists, and if so, how strong is the evidence? (2009/6)

- Is any form of design argument still viable? (2011/3)

- Does God provide a good explanation of the so-called fine-tuning of the universe? (2012/10) (2013/9)

- Do recent 'fine-tuning' results in cosmology substantially improve the prospects of 'design' arguments for God's existence? (2014/7)

Design arguments are predicated on the intuition that certain known features of the universe require an intelligent designer, or, at any rate, the hypothesis that they exist because of such a designer is a more compelling explanation than the hypothesis that brute natural forces are responsible for them.

Modern design arguments originate from William Paley's famous remark on a lost watch in his *Natural Theology* (1802):

> In crossing a heath, suppose I pitched my foot against a stone, and were asked how the stone came to be there; I might possibly answer, that, for anything I knew to the contrary, it had lain there forever: nor would it perhaps be very easy to show the absurdity of this answer. But suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer I had before given, that for anything I knew, the watch might have always been there. ... There must have existed, at some time, and at some place or other, an artificer or artificers, who formed [the watch] for the purpose which we find it actually to answer; who comprehended its construction, and designed its use. ... Every indication of contrivance, every manifestation of design, which existed in the watch, exists in the works of nature; with the difference, on the side of nature, of being greater or more, and that in a degree which exceeds all computation.

Put simply, and focusing on a specific biological trait, Paley's argument could be reformulated the following way:

> (1) Complicated machines like watches don't come into being by pure chance.
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> (2) The human eye is much more complicated than a watch.
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> (3) Therefore, the human eye didn't come into being by pure chance.

Not too long after it was put forward, Paley's argument was roundly demolished by Darwinism, which (allegedly) proved that brute natural processes can give rise to organisms whose parts seem to have been "designed" to aid survival.

Contemporary design arguments are typically couched in terms of probabilities and not in terms suggestive analogies. Here are the two simplest ways to set up a design argument:

Argument schema 1

(1) For some feature F of the universe (e.g. the existence of life, or the 'fine-tuned' character of the physical constants), it is true that the presence F is <u>more probable</u> under theism than it is under atheism (F is much more likely to be produced by God than by an impersonal autonomous cosmos).

(2) Given the rules of probabilistic reasoning,[1] if (1) is true, then F is evidence for theism (and against atheism) if theism is <u>more probable</u> than atheism (on independent grounds, or *a priori*).

(3) Theism is <u>more probable</u> than atheism.

(4) Therefore, F is evidence that God exists.

Argument schema 2

(1*) For some feature F of the universe, it is true that the presence F is <u>much more probable</u> under theism than it is under atheism (F is much more likely to be produced by God than by an impersonal autonomous cosmos).

(2*) Given Bayesian rules, if (1) is true, then F is evidence for theism (and against atheism) if theism is <u>not significantly less probable</u> than atheism.

(3*) Theism <u>is not significantly less probable</u> than atheism.

(4) Therefore, F is evidence that God exists.

The two schemas only differ in the underlined parts.

What is probability? Two relevant conceptions:

(P1) Probability is some sort of objective chance (e.g. the probability that a radioactive atom decays in the next hour)

(P2) Probability is the degree of rational credence (the strength of your disposition to take something for certain, given everything else you think you know). One way to measure your degree of credence in P is to check how much would you bet on P.

Some natural phenomenon's being "surprising" means different things on these two conceptions:

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[1] See the note on conditional probabilities.

Under (P1):

> Something is "surprising" if it has very low or zero objective chance (nothing in the natural world is strongly or even moderately strongly disposed to bring it about).

Under (P2):

> Something is "surprising" if, were we ignorant of whether it was the case, we would be willing to bet heavily against it.

Two design arguments are still alive today (more or less). One is the <u>fine-tuning argument</u>, on which (1) or (1*) is true because very slight changes in the relative strength of the physical forces or in the properties of the early universe would have guaranteed that there is no life (or no galaxies, or even no matter etc.). The permitted (life-conducive etc.) range of values appears to be so small that the existence of a universe like this is exceedingly improbable by natural means (or so people claim).

An interesting recent challenge to the fine-tuning argument is the <u>multiverse hypothesis</u> on which our universe is but one in an infinite collection of parallel universes, one corresponding to every physical possibility. (The multiverse hypothesis is sometimes advertised, especially in Oxford, as the best interpretation of quantum mechanics.) If we live in a multiverse, then the fine-tuning argument seems to lose its force, since every possible configuration of physical constants is realized in some universe, and hence the probability of there being a universe like ours is 1.

The second contemporary form of design argument is defended by proponents of <u>intelligent design</u>. They claim that living organisms are characterized by "irreducible complexity", a type of holistic structure that cannot have come about by successive addition and modification of parts.

<u>Some relevant readings</u>:

> For a comprehensive modern defense of the design argument, check out ch.8 of Swinburne's <u>The Existence of God</u>. Mackie's <u>The Miracle of Theism</u> (ch.8) contains a quick refutation of Swinburne, along with a discussion of Hume's classic attack on arguments from design.

> <u>Fine-tuning</u>

> *Collins: "<u>Evidence for fine-tuning</u>"
> A summary of cosmological evidence that seems to favour the fine-tuning hypothesis.

> *McGrew & Vestrup: "<u>Probabilities and the fine-tuning argument: a sceptical view</u>"
> This paper argues that we cannot assign probabilities to fundamental features of the physical universe in a meaningful and non-questionbegging way.

> *White: "<u>Fine-tuning and multiple universes</u>"
> Argues that the multiverse hypothesis undermines the fine-tuning argument.

> <u>Intelligent design (pro and con)</u>

> *Behe: "<u>The modern intelligent design hypothesis: breaking the rules</u>"

> *Miller: "<u>Answering the biochemical argument from design</u>"

> The papers marked with * can be found in Manson (ed.), <u>God and Design</u>.