

are beyond discussion and debate is merely accepting them blindly. You may well believe that God dictates those beliefs; that God is perfectly good, all-knowing, and so on. You may well be sincere in believing that your love of God absolves you from determining the reasons why God may have dictated as He has. But we may respect your sincerity without respecting your beliefs. And there is only one way to respect the actual substance of any God-dictated moral belief: consider it conscientiously in the full light of reason, on its own, using all the evidence at our command to evaluate it. No God who was pleased by mere blind, unreasoning devotion would be worthy of worship.

Morality, in other words, must stand on its own legs. As must we – whose moral motivations ultimately must come from ourselves, however convenient it may be to dress them in the cloak of religion.

RELATED CHAPTERS

2 Plato, 54 Kant, 81 Mavrodes.

Richard Dawkins (b. 1941)

The ultimate Boeing 747

The contemporary design arguments for God's existence in fact lead to the opposite conclusion

As the twentieth-century astronomer Fred Hoyle put it, the likelihood of even the simplest biological cell arising via random processes is comparable to that of a tornado sweeping through a junkyard assembling a Boeing 747. This image captures the essence of contemporary “design arguments” for God’s existence, which, as we’ve seen, come in two versions: one based in physics and one based on the “irreducible complexity” of organs and cells in biology. The basic idea is that where ordered systems are incredibly unlikely to arise by natural processes we must infer an intelligent designer. Dawkins agrees that the design argument is indeed a very strong one – but argues that it actually works *against* the existence of God.

Let’s begin with biology. There is no lack of examples, cited by theists, of apparent biological design. They look at the sponge known as “Venus’s flower basket,” the plant known as “Dutchman’s pipe,” the giant redwood tree, and insist on their improbable evolution; they then move to the standard examples of irreducible complexity. What use is half an eye or half a wing? If none, then it is deeply improbable that either organ arose by successive, random processes, since each

intervening step would confer no survival advantage on its possessor.

But there is a fundamental error here. When you look only at the starting points and ending points of the journey – from primitive molecules in a prehistoric soup to complex contemporary life – you see vast improbability. But when you break that journey into innumerable many smaller steps and guide it by the forces of natural selection then it no longer appears so unlikely. And indeed “half an eye or wing” – an intermediate stage of eyes or wings – not only can confer a “survival advantage” on their possessors but actually does: the natural world is filled with creatures with eyes and wings of varying capacities. In fact no true example of “irreducible complexity” has ever been found, not even Behe’s flagellum: they’re not really irreducible.

As for the physics: the laws of physics (theists insist) seem precisely tuned to allow life as we know it, including we ourselves, with consciousness, rationality, and morality. Such tuning is not only vastly improbable but cannot be explained by evolution, which applies only to biology – so there must have been intelligent design.

Except that alternative explanations are available. Some physicists believe that physics could not have been any different; its properties are not “finely tuned” so much as necessary. Others believe, based on quantum theory, that our universe is only one of a vast number of universes all varying in their basic properties. That one of those universes contains *our* properties isn’t so surprising: for if there were a billion billion universes and only one in a billion chance of having those properties, then there would still be a billion universes with them. Yet other physicists believe that our current universe is only one in a long series of universes, each beginning with a big bang and then collapsing into a big crunch – and then creating the next

universe with perhaps different physical properties. If this has occurred enough times then again it wouldn’t be so improbable that one of the universes might eventually have the properties of ours.

We may not know yet which theory here is the correct one, but that there are alternatives means that the remarkable properties of our universe do not demand the “intelligent design” conclusion, any more than does the remarkable complexity of the biological world.

In fact it’s just the opposite.

We begin with the need to explain extremely improbable things. But invoking an intelligent designer does not explain anything. We still won’t understand how the thing arose; we’re merely being told “someone made it.” More importantly, we cannot explain something improbable and inexplicable by invoking something even *more* so, and what could be more improbable and inexplicable than some invisible being transcending all time and space designing our vast cosmos? When you truly appreciate how “improbable” the features of our world are, then you will also appreciate that the only things we have even remotely resembling explanations of these features are generated by designer-free evolutionary theory and contemporary physics.

Which means that the evidence of intelligent design championed by theists leads precisely to the opposite conclusion: there is no designer.

RELATED CHAPTERS

50 Paley, 51 Hume, 57 Darwin, 61 James, 65 Russell, 85 Davies, 87 Behe.