BOOK REVIEW

Naill Shanks. God, The Devil, and Darwin: A Critique of Intelligent Design Theory

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Naill Shanks has penned a book, endorsed by his biologist friend Richard Dawkins, that purports to lay at rest the traditional and contemporary versions of the argument from intelligent design (hereafter, ID theory). In the Forward, Dawkins says "ID theory is pernicious nonsense which needs to be neutralized before irreparable damage is done to American education" (x). Shanks (hereafter, the author) opens his book with the comment that "A culture war is currently being waged in the United States by religious extremists who hope to turn the clock back to medieval times" (xi). Apparently a lot is at stake, and it is very important to refute religious extremism by refuting the ID theory.

In the Introduction of his book, the author runs together ID theory, religious fundamentalism, and varieties of creationism. He never makes it clear that all versions of the ID theory are not committed to fundamentalism or any version of creationism.

In chapter 1 the author traces the history of the ID theory or argument from design beginning with Plato's Demiurge and Aristotle's Unmoved Mover. The author never carefully distinguishes between versions of the cosmological argument and the teleological argument, but we can forgive him for that, since they are closely related. The author correctly points out that traditional ID theory regarded nature and the human body as machines. They used mechanical metaphors and pictures. Newtonian mechanics, for example, construes the universe as one great machine (31). Then there is William Paley and his watch example. In his discussion of David Hume's contributions to the subject, the author does not make it clear that Hume refuted Paley by pointing to disanalogies between the universe as a whole and a watch.

In chapter 2 the author tells us there are two main versions of the argument from design. One applies to the universe as a whole, and the other uses ID theory to explain particular complex biological phenomena such as the human eye. In this same chapter the author uses and reprises Charles Darwin's theory of evolution to show that species evolved from other, lower species, contrary to creationism, and

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that the theory of natural selection is an alternative and scientifically respectable account of such biological phenomena as the human eye. I find nothing here that has not been said quite often in the literature. The exception is an analogy the author draws between an undesigned universe and Adam Smith's conception of a free market economy. In a free market economy each person pursues their own self-interest and by an invisible hand this makes everyone well off without there being a director or intelligent agent that oversees the whole process (68). I regard this as an illuminating and apt analogy.

The author buttresses his treatment of Darwin's views on evolution with a summary of more recent genetic theory. He points out that animal development is not at all like the building of a machine, but is instead a self-organizing process based on the natural and genetic coding in the organism (87). He points out that evolutionary biology still doesn't have a worked out theory of how the human eye developed, but that it probably will, and we do not need God to fill in the gaps (92).

In chapter 3, one of the most technical and scientifically proficient chapters of the book, the author argues that Henry Morris and William Dembski, both ID theorists, fail in their attempt to use thermodynamics to reinforce claims about ID theory, and block the acceptance of evolution. I will not rehash the arguments here. They seem sound, and I recommend them to the reader.

In chapter 4 the author examines ID theory in more detail (135). The author regards ID theory as an attack on naturalism, the view he defends. He distinguishes between metaphysical naturalism and methodological naturalism. Metaphysical naturalism simply denies the existence of anything supernatural. Methodological naturalism, which the author endorses, allows hypotheses about supernatural ID. However, based on long experience in which only natural, physical objects have proved amenable to scientific study, the evidence for the ID theory is simply lacking. This is supposed to be a contingent fact.

Chapter 5 is a treatment of the notion of irreducible complexity introduced by Michael Behe in his *Darwin's Black Box: The Biochemical Challenge to Evolution, 1996.* Behe's book is one of the most influential books written of late in support of ID theory. Using the writings of another biochemist, A. G. Cairns-Smith, the author attempts to diffuse the Behe attempt to justify ID theory, and, at the same time, to defend the theory of evolution against Behe.

To explain irreducible complexity, Behe uses the mechanical metaphor of a spring-loaded mousetrap that has five functional parts all of which must be in place to catch a mouse. This is a contemporary version of Paley's watch. The gist of it is that all of the five functional parts must be put together before the mousetrap can function. It cannot function without all five parts present. So, it must have been created or made by someone, and cannot have developed gradually part by part on its own. The author counters this by arguing that chemical self-organization could have given rise to a irreducibly complex system. The author and Karl Joplin have done work in biochemistry on what the author calls "redundant pathway complexity." The hypothesis is that biological organisms, that are not to be construed in mechanical terms like the mousetrap, are "the product of a large number of overlapping, slightly different – hence redundant – processes" (180).

Behe has conceded the presence of redundant biochemical complexity, but argues some biochemical systems are not redundant (182). Here the author appeals to a



metaphor of an architectural free-standing arch instead of a mousetrap. All the component stones in the arch depend on each other. Take away one stone, and the arch collapses. But the arch was built one stone at a time until the keystone is in place and the structure becomes self-supporting (184). The author concludes that mindless evolutionary processes can give rise to "the redundant complexity we observe in biochemical systems." These redundancies provide scaffolding to support "the gradual evolution of systems that ultimately manifest irreducible complexity." Thus irreducibly complex systems can be looked at as limiting cases of redundantly complex systems (185). I take this as a plausible alternative to Behe's view, and a convincing repudiation of the Behe objection to evolution.

In chapter 6 the author takes up the argument from design for the universe as a whole. He mentions the big bang and its alleged causes and the fine tuning version of the argument from design. He does not rule out the existence of something before the big bang. He argues that the universe could be orderly due to "self-organizing processes generated by mechanisms operating in accord with the laws of physics" (204).

The author then addresses the anthropic coincidences and the fine tuning argument from design. But he does not critique the work of any sophisticated proponent of the fine tuning argument, so the value of the section is somewhat nebulous. He goes on to consider three possibilities for the origin of things: chance, ID, and the existence of other universes, or a multiverse hypothesis, that he prefers. He points out that we do not need to accept the ID theory, that "there are other (possible) naturalistic explanations of the same facts" (218). He likes the hypothesis that "our universe is a part of something, perhaps infinitely, bigger" (219). He admits that there is no current evidence for the multiverse hypothesis, but asserts there is no evidence for the ID theory either. He concludes that the ID theory is only a possibility. But so is his multiverse hypothesis.

The trouble I have with his treatment is that the author never tells us what "evidence" is, or what counts as evidence for a hypothesis or theory. One can argue in the following way for ID theory. Once you admit that something, such as the universe, is designed or has a design, it necessarily follows that there must be something that designed it, a designer. Why isn't such design "evidence " of a designer?

Another more fundamental point is that the author correctly contrasts the chance hypothesis and the ID theory, since both of them cannot be true together. However, he never shows that his multiverse hypothesis and ID theory could not both be true. Both his multiverse hypothesis and ID theory can be true together. They are not mutually exclusive alternatives. It is only possible to have one without the other.

The author claims that ID theory, if true, does not entail anything about the nature of the intelligent designer (170). It does not follow that we do not know anything about the nature of God. Many books have been written on the divine attributes, and any book on the philosophy of religion contains a chapter on the concept of God. So, we do know a lot about the attributes of God.¹ Once the ID theory is in place, if it

¹ The literature in philosophical theology is rife with examples. For instance, the author does not address Richard Swinburne's versions of the cosmological and teleological arguments in his *The Existence of God*, (Oxford: Clarendon Press, 1991). The argument for the fine tuning of the universe from a scientific point of view is cogently argued for by Collins, R. (1999). A scientific argument for the existence of God: The fine tuning design argument. In M. J. Murray (Ed.), *Reason For Hope Within* (pp. 47–75). Grand Rapids: Eerdmans. There are numerous further examples. The author engages none of them.



can be, we are free to fill in the picture, although it is not logically entailed by the ID theory. But hardly anyone ever claimed it was.

This leads to another fundamental difficulty with the book. The author picks as his targets of criticism rather philosophically unsophisticated sources. He does not address more philosophically sophisticated versions of the argument from design or the fine tuning argument. So, a scholar in the philosophy of religion cannot take the arguments of the author as representative.

Finally, I shall address the expressed purpose of the book. What exactly is the real issue, or the author's main concern? It is clear that he wants to defend the theory of evolution against its detractors. But we have to look elsewhere for his motivation. In the quote at the beginning of the review from the Preface, the author speaks of religious extremists. Later he says "in passing off their religious views as scientific, ID theorists...seek to ruin the very sciences in whose respectability they try to cloak themselves" (15). But a proponent of ID theory does not have to replace science with ID. A freethinking ID theorist can very well accept all of modern science including the theory of evolution and the author's multiverse hypothesis, and add another version of the ID theory to it. So what is the real danger from the ID theory?

I think the real issue comes at the conclusion to the book. There the author talks about fundamentalism and extremism that puts restrictions on scientific research, such as stem cell research, eugenic abortions, and assisted suicide, all of which is aided by science (231). I think he is afraid of the possibility of a theocracy in America and the breakdown of the separation of church and state that is a genuine concern in America today. Conservative religious extremists in the United States are forcing their moral views on us based on nothing but their religious faith and a literal reading of the Bible. This is dangerous, wrong, and ought to be resisted in a free society. Morality does not and should not depend on religious faith for its justification or motivation. The author points out that one can be morally good without religious belief and faith (236). It is undoubtedly true that religious extremism is a real danger to our freedom in America. But what has this got to do with ID theory?

Someone can be a freethinking Christian and not impose their religious beliefs on the moral and scientific theories in our country. This is not the fault of Christianity alone or of all versions of ID theory. It is the result of unthinking, unreflective religious zealotry that seems to threaten the well being of many countries in the world today, and is the cause of wars. However, there are ignorant zealots of any worldview, such as fanatical communists. What we should be encouraging is education and the ability to reflect rationally on matters of morality and science. I conclude that the author shows it is possible to do without ID theory, but not that one has to or should.

