

Daniel C. Dennett, Alvin Plantinga, *Science and Religion: Are They Compatible?*, Oxford University Press, 2011, pp. 96, \$ 9.95, ISBN 9780199738427

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This little book by two prominent American philosophers of our time reflects the public debate held by them at the APA Central Division Meeting in 2009 in Chicago. At the incipit, this book could look fit to avoid falling into the pitfall of the vexata quaestio of Darwinism vs Intelligent Design, for even the Christian side (Plantinga) is eager to affirm the validity of current Darwinism. But entering into the text, the reader soon starts to feel that Plantinga's view is only a different flavour of ID, namely the idea that God intelligently designed life forms by means of interfering in the variational part of a darwinian evolutionary process. And the author makes clear this requires abandoning the tenet of naturalism, which is of course defended by Dennett.

As a debate, the book is structured in chapters alternatively written by the two authors.

The first move (chap. 1) is by Plantinga. He tries to defend three theses, of which the most surprising is the last:

1. contemporary evolutionary theory is compatible with theistic belief;
2. many typical Darwinism-based anti-theistic arguments fail;
3. naturalism is in fact incompatible with evolution.

The first thesis hinges on Plantinga's observation that randomness of mutations, presupposed by neodarwinism, does not mean that mutations are not caused at all, (that is bring forth by *pure chance*), but rather that there's no correlation between the potential fitness of a possible mutation and the probability of its occurrence. This means that neodarwinism *as such* does not exclude the possibility of God's intervention to guide evolution by causing ad-hoc occurrences of particular mutations at the right time for them to be positively selected. This seems a rather uncontroversial point, that aims to show that Dawkins/Dennett-

style atheistic champions hold their atheism, which Plantinga calls “naturalism” (see his definition on page 63), as an occult illegitimate premise and not as a conclusion.

The second point Plantinga makes is a refutation of three arguments from evolution (or maybe, better, from Darwinism) that aim to attack theism. I will not linger here, for I think the last point is the more interesting of the three. Only a few words to note that, in trying to refute the claim that Darwinism (which surprisingly Plantinga often calls simply “evolution”), in undercutting the argument from design, makes the acceptance of theistic belief less reasonable, the author falls to the temptation of bringing into the arena Intelligent Design under the form of Michael Behe's highly controversial work, thus discrediting himself at least as much as Behe is discredited in the scientific and philosophical community, something that is highlighted by Dennett in chapter 2.

Let's come to the last thesis: in section III, Plantinga brings forth a well-known (dating 1993) argument by him against naturalism. It, shortly put, states that, given naturalism (in a certain sense of the word, as we will see) and darwinian evolutionary theory (based, as such, on natural selection), the probability that our cognitive faculties are reliable is low. Among these cognitive faculties is of course our capacity to rationally accept darwinian evolution and naturalism together, so, it follows that a statement of darwinian evolution and naturalism together is self-defeating, and as such cannot be rationally accepted. And, given that Plantinga had already established that Darwinian evolution alone is indeed compatible with a theistic (Christian) position, we have to discard *naturalism* on a rational basis, if we want to be darwinian evolutionists. I report here the argument in its explicit form:

- (a) $P(R/N+E)$ is low.
- (b) One who accepts $N+E$ and also sees that (a) is true has a defeater for R .
- (c) This defeater can't be defeated.
- (d) One who has a defeater for R has a defeater for any belief she takes to be produced by her cognitive faculties, including $N+E$.

Therefore

(e) N&E is self-defeating and can't rationally be accepted.

Where R is the proposition that our cognitive faculties are reliable, E is evolution by natural selection (or better, in Plantinga's words "current evolutionary theory"), and N is naturalism, seen by Plantinga essentially as a form of absolute atheism.

According to Plantinga, (premise *a*), the conditional probability that our cognitive (mental) faculties are reliable, given that we hold Darwinism *and* naturalism *both* as true, is *low*. This, according to him, is due to the fact that natural selection, by which our cognitive faculties have phylogenetically arisen, can only select for *adaptive* behavior, generated by neural mechanisms, and not for *true beliefs*, which as such are mental states and not neural ones, at most only supervenient (given physicalism) on neural states. For this reason, according to Plantinga, beliefs are not guaranteed at all to be *true*, even if their subvenient states are indeed *adaptive*.

Now, this complex argument has been abundantly discussed, and there is not enough space here to follow this debate, which seems quite open, and depends heavily on discussing Plantinga's own vision of epistemic warrant, a task which would require an extensive assessment of his own peculiar definitions of certain philosophical terms. Suffice to say that the most doubtful of the premises is *a*. It seems dubious to me anyway what this argument, even if correct, seeks to demonstrate. For at first sight, it could seem an argument against Darwinism alone. What if, in fact, we substitute (a) with the following?

(a2) P(R/E) is low

and eliminate every other occurrence of N from the other premises? It seems the argument could work as well. But, formerly, Plantinga had said that Darwinism, *per se*, is not incompatible with theism, so we can be sure he does not want to attack Darwinism *alone*. But what is N contribution in the original argument? It seems Plantinga's view is that *truth* is not guaranteed by natural selection, i.e. that *truth and adaptiveness do no go hand-in-hand*. It appears to me that Naturalism, as employed in the original argument, does *nothing* (it is only a negative assertion, according to Plantinga, after all), but is there *just* to do nothing, that is to ensure that truth and adaptiveness

are *not* linked together by any supplemental reason. This presupposes that Plantinga, a theist which wants to support Darwinism, to avoid making Darwinism fall under his very same argument, should have *other* reasons to think that truth and adaptiveness go together, and I can think of no other possible reason than the following one, which Plantinga doesn't put out explicitly: that God would guarantee the truth of most of our beliefs (Descartes, anyone?). And, given that negation of (*a*), i.e. *reliability* of our cognitive faculties, is necessary to believe that science is right, it seems that, as Dennett notes in chapter 6, "Plantinga wanted to show, in other words, that science and religion are not just compatible: Science *depends on theism* to underwrite its epistemic self-confidence." (p.75, emphasis is mine).

Daniel Dennett, in chapter 2, begins to reply to Plantinga. He starts conceding the correctness of his first thesis, but, unsurprisingly, announces that this fails to support Plantinga's larger project, that is *theism*. In his typical caustic and sarcastic style, which he will hold onto for the entire book, Dennett develops a series of somehow grotesque mental experiments. In order to show that theism, albeit compatible with Darwinism, is in fact a superfluous and gratuitous additional hypothesis, he tells the tale of Superman (and not God) as the (quasi)immortal being interfering with evolution by means of his super powers, with the aim to bring species into existence. Dennett claims that Darwinism cannot exclude the possibility of such an historical interference, be it from Superman or from God. He argues that the hypothesis of such an interference is anyway gratuitous, and that the burden of showing why the theistic position deserves more respect than the Superman story falls entirely on Plantinga's shoulders.

Dennett's response to the argument on which Plantinga's third thesis is founded, however, is simply that its premise *a* is false, since, *precisely* due to natural selection, our beliefs *do* indeed track truth, even if, per se, belief states are what they are and cause what they cause independently of their truth value. Belief states are *syntactic* engines, and not semantic ones, but what Natural selection does is actually to make these syntactic engine *track* the truth. The same argument gets elaborated in chapter 4, in which Dennett, basing on Artificial Life and

genetic algorithms results, claims that Plantinga's belief that truth-tracking cannot evolve by natural selection betrays only a failure of imagination on his part.

Now, I think this kind of reply should in turn require an analysis of what Dennett means by "truth" and of the relation between truth of propositional contents and adaptiveness of the corresponding physical realizers, especially under the light of his alleged intentional instrumentalism. In the book, he does not elaborate on this, and in my opinion this renders his counter-argument a bit shallow.

The rest of the book is another two turns for each participant. In these chapters, each author more or less restates his previous theses or objections, with some variations and also a few new, weaker arguments based on sociological rather than logical reasons. While the core ideas of the book are all exposed in the first two chapters, in chap. 5 Plantinga adds that the possibility of divine intervention does not spoil science: he plainly admits (p.65) the possibility of miracles, and argues that this does not go against scientific laws. The argument is that scientific laws, as for example conservation of energy, hold for a causally closed system, but that if a miracle occurs by divine intervention, the system is *not* closed, because God is *outside* it and acting *on* it, so scientific laws can still hold.

It can be objected, as Dennet does in chapter 4, that scientific *practice* (albeit not scientific *laws*) presupposes that divine intervention is excluded, otherwise *experiments* could not be relied on. Surprisingly, Plantinga's reply on this is that "In science, we assume that God won't capriciously interfere with our experiments. The same goes in everyday life [...]" (p.63), and "There is an enormous difference between atheism and assuming that God won't interfere with my experiments" (p.64), while in the following page asserting: "Of course God's faithfulness and reliability along these lines doesn't mean that he never acts in ways outside of the normal course of things: it doesn't mean, for example, that miracles never occur".

I would like to add that what science *does* presupposes is at least causal closure in an epistemological sense, that is the view that for every observed effect science can find a cause which explains it, and that in turn that cause, seen as an effect, must have another scientifically traceable cause, and so on. In the case of miracles, this epistemological requirement would be

violated, for we will be presented with an effect with an inscrutable cause (divine intervention), and this, I think, *would* spoil science.

That said, Plantinga's *argument* against naturalism is around since many years and it has shown to be philosophically and logically not so easy to dismiss *as an argument*. It seems to me that Dennett's reply to it in this text is not enough analytically elaborated, and so that the debate is not over yet. I think the state of the question could benefit from a finer analysis of the philosophical positions of the two contestants, which in turn are representative of two larger philosophical factions.

Websites

<http://www.oup.com/us/catalog/general/subject/Philosophy/Science/?view=usa&ci=9780199738427>