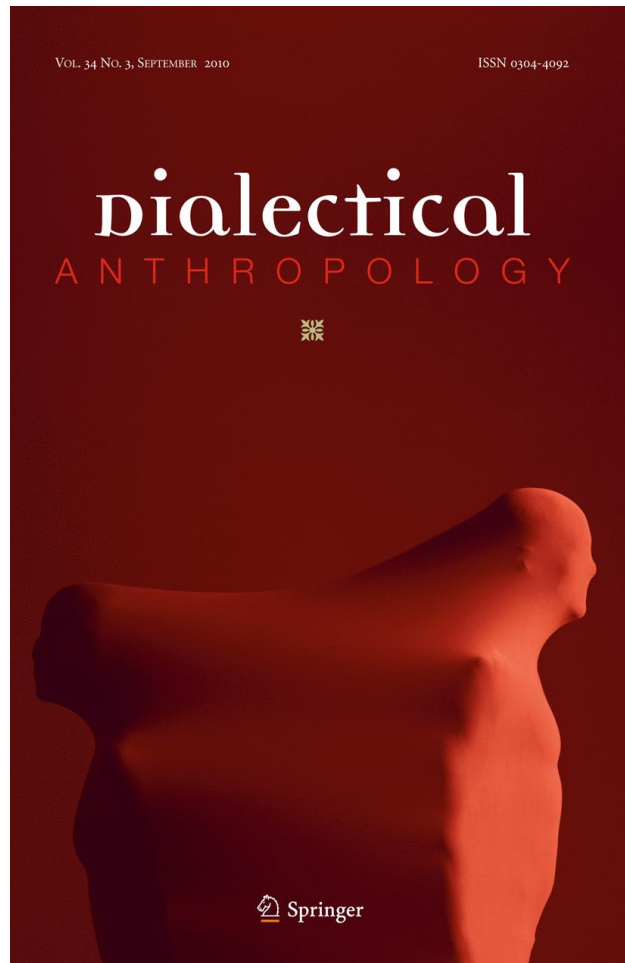


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## Voltaire this ain't

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### The God Delusion

*By Richard Dawkins (London: Black Swan, 2006, 463 pp, Paperback).*

I think the only literary genre more frivolous than theologians writing about science (Teilhard de Chardin 1959) is scientists writing about theology (Miller 1999; Dennett 2006; Collins 2006; Roughgarden 2006). This latter group has now devolved into two camps: some scientists find it reasonable to seek spiritual meaning in the natural world, inheriting the centuries-old ambitions of John Ray and William Paley. The less pious also write about it, although with different goals. While the devout are trying to reconcile their beliefs about the non-material universe to the domain of science, the less devout are trying to convince them that they are idiots, a somewhat less respectable ambition, even if just as likely to be unsuccessful.

Richard Dawkins, recently retired Oxford professor of the Public Understanding of Science and one of the leading voices of contemporary Darwinism, aggressively links science, and particularly evolutionary science, to his evangelical atheism. The result is a best-selling screed and an eloquent testimony to the poverty and problems of modern science education. I will discuss the book in terms of several critical paradoxes it raised for me.

Science, as a set of tools for producing reliable knowledge of the natural world, is a product of seventeenth-century European minds. Its most fundamental assumption is that despite critical points of contact, there is some sort of basic division between Nature and Supernature, the former being governed by matter and law, and the latter by spirit and miracle. The uniqueness of that underlying assumption—that the natural and supernatural realms are basically distinct and separable from one

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another—has been richly documented by ethnographers since Bronislaw Malinowski's *Coral Gardens and their Magic* (1935).

Science, it hardly needs to be pointed out, has been spectacularly successful at its program of producing reliable knowledge about Nature. Of course there have been skeptics since the very beginning. Christopher Marlowe's Dr. Faustus (ca. 1600) sought ultimate knowledge: His first questions of Mephistopheles were about astronomy. But only slightly farther down the list, it became clear that he really just wanted to smooch with Helen of Troy and see if she was as hot as all that. However revolutionary these ambitious new-fangled knowledge-seekers may seem, Marlowe seems to warn us, they are still just a bunch of over-educated, horny old geezers.

Richard Dawkins, of course, doesn't believe in Mephistopheles or Wotan or Baal. He does believe, however, that "God almost certainly does not exist" (p. 189), which helps to articulate the first paradox: How do you establish degrees of certainty in the domain of the Supernatural? Are you more likely to have telepathy or future vision? Neither, obviously; there are no applicable degrees of certainty here. It's like taking a probabilistic approach to history. Napoleon didn't "almost certainly" lose the Battle of Waterloo: According to the standards of knowledge production we can apply to the subject, Napoleon lost the battle of Waterloo. To qualify it as if it were a scientific statement, subject to the laws of probability, is an inappropriate invocation of statistical inference. If we know that the methods of science work for Nature—and in large measure because Nature was deliberately circumscribed in order to be subject to the methods of science—then how can we apply its methods to Supernature and expect reliable knowledge in return (Barzun 1964)?

Those battles were fought centuries ago, by the likes of Galileo, who quoted a friendly Cardinal in 1615 to the effect that the Bible "tells us how to go to heaven, not how the heavens go." More recently, Stephen Jay Gould described the domains of science and religion as "non-overlapping *magisteria*" (Gould 1999). But Dawkins has little truck with Gould, Galileo, or others whom he sees as "appeasers" of the pious mob. To Dawkins, the *magisteria* do overlap, his view is right, and the other side is just a bunch of closed-minded bigoted idiots. Jerry Falwell used to think the same thing.

But the logical problem entailed in applying the apparatus of science to the realm of spirit and miracle is encased by a meta-problem. If the act of applying science to the domain of the non-scientific is itself manifestly illogical, then what does that imply for the spokespeople on behalf of science, who either cannot themselves see the error in logic, or do not think it is significant? Do they understand what science is even about? *Can such philistines be entrusted with the scientific education of our children?*

If I give this any more thought I will get very depressed, so I will instead move onto the next paradox. Dawkins has a very narrow view of what constitutes religion—it is little more than groups of people doing stupid things for stupid reasons, principal among them being that Jesus told them to. In this sense, then, the scope of the book's ambition presents a stark contrast against the narrowness of the criticism it actually manages to articulate. Most of the negative responses to the book have predictably come from Christian theologians (McGrath and McGrath 2007).

Dawkins claims to be “attacking God, all gods, anything and everything supernatural, wherever and whenever they have been or will be invented.” (p. 57). One might expect to see that he counts saints, angels, water-spirits, dryads, witches, or ancestral ghosts as gods, and goes after them as well, but Dawkins has nothing to say about those aspects of the supernatural. His book is actually concerned quite parochially with a Christian version of God; and it is unclear whether Dawkins believes that a universe without such a God would *ipso facto* be a universe without any magic or spiritual power at all. Dawkins wishes for a world without Vatican City, where power and wealth have been amassed by a self-interested elite through instilling millions of people with irrationally optimistic hopes. But, for better or worse, that would also be a world without Las Vegas, Wrigley Field, and much of the pharmaceutical industry.

As they say, be careful what you wish for. Oh, wait—you do believe in wishing, don't you?

The third paradox is Dawkins' own anti-intellectual fundamentalism, even while he attacks others for theirs. Dawkins has never been much of a fan of cultural relativism, snarkily inquiring in an earlier publication, “When you actually fly to your international conference of cultural anthropologists, do you go on a magic carpet or do you go on a Boeing 747?” (Parker 1996; Dawkins 1995). Religion is only for people who can't handle science, that is to say, for children and morons, as quaintly pre-modern nineteenth century scholars like August Comte, Francis Galton, and Ernst Haeckel held. And, like them, Dawkins sees himself as something of a Pope.

Dawkins consequently still has little use for modern relativistic anthropology, which he tends to see as an anti-science ally of the creationists in the Science Wars. Some modes of thought are simply superior to others, and the yardstick of superiority is accuracy. The realer, the better—and science provides the realest story of all. That is why everyone should be a scientist. But what a boring and tragic universe to inhabit!

No, you're not going to win the lottery or hit that jackpot; no, there are no schools for wizardry; no, the Cubs are not going to win the World Series this year; no, you're never going to have a beer with Paul McCartney, and tell him how “Abbey Road” changed your life; no, your spouse isn't that hot and your kids aren't that smart; no, you can never go home, and what's worse, your memories of home are totally distorted anyway. Oh, and remember that clique that used to tease you mercilessly back in school? They all bought Microsoft in 1986, made millions, and retired to Maui years ago; and they don't even remember you. This is reality. It sucks. Deal with it.

On the other hand, as Richard Dawkins ponders why his Church of the Unvarnished Truth doesn't seem to resonate with large segments of the public, we can also marvel at his reduction of religion and the supernatural to no more than just a competing intellectual framework, a less accurate story about the universe. I could swear I remember reading somewhere that religion has a pretty important affective component, and that it has a pretty significant social component, too (And don't go looking for Durkheim in the index!). Dawkins is not interested in religion as an experience, however, but only as a theory. The anthropology that concerns him,

then, effectively ends with James Frazer (with a few modern sociobiologists thrown into the references for the sake of a different social solidarity). For what it's worth, *The Golden Bough* is in Dawkins' eyes an "[a]nthropologically informed work" (p. 57) that "impresses us with the diversity of irrational human beliefs" (p. 219). Dawkins himself seems less impressed by the invention of ethnography as a source of reliable knowledge. I wonder how Dawkins would react to learning just how much more irrational people really are, more than Frazer could ever have imagined!

Of course, when you already know what people are doing and thinking, and why they are doing and thinking it, you really don't need ethnography.

Further, there is also something basically anti-evolutionary in Dawkins's ethnocentric conceit about his science supplanting other people's religion. One of science's most cherished myths is the exhortation to distrust received wisdom (an exhortation that obviously doesn't extend as far as the creationists). But such an exhortation is not only disrespectful to one's ancestors, it would seem as well to oppose the very evolution of our species, for that very reason. What evolutionary adaptation can we reasonably understand to have gotten us to where we are in the history of life, aside from the simple confidence we have in the body of knowledge that is passed down to us? Trusting in what our elders teach us is surely what got us here. Suddenly to decide, then, that received wisdom is now unreliable, and must be overturned whenever possible, would seem to fly in the face of at least the 2.6 million years of the genus *Homo*. Our ancestors were mercifully unscientific—they survived precisely because they didn't rethink the manufacture of chipped stones and antelope jerky every generation.

Nor is symbolic, religious thought likely to be supplanted by rigorously materialistic scientific thought in the foreseeable future, any more than bipedality is going to be replaced by sitting down as a form of human locomotion. We have certainly expanded our range of available locomotor options with the ability to take a ride, but in a pinch, it is still very hard to get around without good old-fashioned upright striding. I may well have logged more mileage sitting down than standing up last year, but I'd be reluctant to think of myself as being no longer bipedal. Bipedality is my evolutionary heritage, and there still remains a good deal to be said in favor of it.

The point is that the same can be said of the general non-scientific mode of human thinking that Dawkins decries. It was very valuable to the process of becoming human, and is very valuable to the enterprise of being human. We can take as an illustration the most simple, and the most quintessentially symbolic act: pointing. Chimps never do it, but humans are doing it within their first year. It is simply an imaginary extension of the second manual phalanx, but that analysis conceals the important aspect of pointing: there isn't anything there, just a mental association between the fingertip and the object. It exists only in the mind of the pointer and of those with similarly built brains, and is the purest symbolic act: the arbitrary and meaningful conjunction of two things that have no necessary connection to one another. The association just doesn't exist to a chimpanzee, because there isn't anything there.

Symbolic thought is fundamentally non-rational and unscientific; it is metaphorical. It is pointing writ large; there is never anything there, just thoughts. Those

thoughts are what make the evocativeness of art, dance, story, and music as diagnostic of a human condition as chromosome 2 is of a human cell. And yet the former commonly stands in contrast to the latter, in contrast to science—the rational, problem-solving, technological aspect of modern life—as humanities. The very name bespeaks their evolutionary significance: they confer humanity upon us. Without them, we would be Neandertals (albeit with chins and foreheads) at best, but not human. To Dawkins, though, it seems that any such irrationalism is better left back in the Pleistocene, a holdover of earlier, primitive anthropoid sensibilities.

On the other hand, consider the professional training of the religious specialist, with a generally heavier concentration on “people skills” than that of the scientist. Here is a simple scenario: You’ve just been fired. Mom is ill. Your spouse has left you for someone else. You’re 20 pounds overweight, your clothes don’t fit, and your football team is in last place. Who do you really want to talk to—a minister or an X-ray crystallographer?

The point is, Dawkins uses an unaccountably narrow and unsophisticated view of religion’s complex origins and functions. How could any person with scholarly pretensions adopt an ostensibly scientific position that is so crudely, absurdly, and indefensibly reductive?

Oh, wait. I think I get it now. If you liked *The Selfish Gene* (1976)...

The final paradox involves Dawkins’s role as spokesman for science, regressively bracketing it apart from cultural issues and values. In this role, Dawkins resists situating science socially and historically. The most important discovery of twentieth century science, however, was neither atomic energy nor genomics, it was the discovery that however valuable the study of Nature may be, when it bumps up against human rights, or against simple standards of decency, science must give way. When J. Robert Oppenheimer said “physicists have known sin” in 1947, he wasn’t referring to the sins of avarice, lust, or heresy. He was referring to the development and release of an enormous force of destruction upon the human race and the earth. And neither was it an evil application—it was their job, it was their responsibility to the war effort.

We now appreciate that science is inextricably a cultural endeavor—at the very least, it has always required patronage, from government, business, or simply from the masses. It can no more be free of culture than religion can. The key issues in modern science thus involve negotiating the pursuit of reliable knowledge against human rights and local norms. If scientists want to say that their work is divorced from the moral universe, they nevertheless still have to be able to tell good from evil, and side with the good, or else face the consequences (That is what the Garden of Eden story is really all about, after all).

But where does a scientist acquire such knowledge? Obviously not from the study of Nature itself. That is the question that writers from Christopher Marlowe through Mary Shelley and the late Michael Crichton have periodically raised. It’s not that people are afraid of science; it’s that the average scientist might reasonably be expected to develop into a less moral being than the average citizen, by virtue of having been deliberately shielded from such concerns. The lesson of the eugenics era, after all, was: Scratch a scientist and reveal a totalitarian. In Germany they sure found a home readily enough. In America, they almost did, led by the pre-eminent

human geneticist Charles Davenport, and armed with arguments like: We'll even rid the human race of cancer—all you'll have to do is simply allow us to dictate who can marry and reproduce, and then stand back (Anonymous 1929; Kevles 1985; Kühn 1994)! A century later, the Nobel laureate molecular biologist James Watson exclaims, "People say it would be terrible if we made all girls pretty. I think it would be great" (Bhattacharya 2003).

Care to know just what you would have to sacrifice in order to meet Watson's bio-esthetic desideratum to make "all girls pretty"? Could it be that the Nobel Prize for discovering the structure of DNA and consequently ushering in the era of molecular biology is really just a tool for Watson to use in trying to exercise control over your life, and to help him get laid?

(And please give our regards to Helen of Troy, while you're down there.)

The fact is that science must answer to cultural standards, as any other instrument of social power must. I don't know how he could have invented anatomy any other way, but Vesalius was plagued by accusations of grave robbing for most of his life. Physical anthropologists still commonly have difficulty with the proposition that ordinary citizens find their interest in other people's bones and blood somewhat distastefully morbid.

So what do we do when social standards are anti-racist, and yet prominent scientists are still trying to rationalize gross inequalities and injustices by recourse to imaginary natural differences, and are doing so in the names of Darwin and Mendel? As in the case of that same James Watson in the UK, who articulated his doubts about the intelligence of Africans to a newspaper writer in 2007 (Hunt-Grubbe 2007; Milmo 2007; Dean 2007), the scientist may get transiently taken down and ritually abased—but then comes the backlash. Other people begin to ask, What if he was really right? He is pretty smart, after all. And he is supported by evolution, isn't he (Saletan 2007; Charlton 2008; Malloy 2008)?

Here is my point: Suppose it is worse—morally, not empirically—to be a scientific racist than to be an un-scientific creationist. Then, it seems to me, average citizens who may not really care whether they came from monkeys, but who do care whether they live in a just society, may take an interest in what their children are being taught in school as science. And if they understand evolution to be morally disreputable, then you really can't blame them for wanting to keep it at arm's length. Clarence Darrow appreciated this upon reading the textbook from which John T. Scopes was accused of teaching evolution in Tennessee in 1925. The book went from Darwin straight on to white supremacy and eugenics, which Darrow began denouncing as soon as the trial was over (Darrow 1925, 1926). Biologists began to follow him only after a few years (Pearl 1927; Muller 1933; Marks 2006).

That's why it is in the interests of science, and in particular of evolutionary biology, to dissociate itself as strongly as possible from scientific racism. The big problem isn't the stupidity of the masses, it's the baggage that science brings along, as it claims to be value-free yet produces value-laden judgments (Herrnstein and Murray 1995; Rushton 1995; Sarich and Miele 2004). The only people who can successfully embarrass science are scientists themselves.

The real issue in the background of *The God Delusion* is obviously evolution. As the boxer Jack Dempsey used to say, “the best defense is a good offense,” and this is simply Dawkins on the offensive, hitting the creationists where he thinks they live—in church. Unfortunately, Dawkins, like many front-liners in the “science wars” of the 1990s, still believes in a sort of “Protocols of the Elders of Post-Modernism”—that creationists are somehow cogs in a great anti-science conspiracy.

But nobody is really anti-science. We all make decisions about what science to accept, what science to reject, and what science to ignore, and we have complex criteria for doing so. Indeed, only an utter ignoramus would take all scientific pronouncements at face value. Some are, at very least, much more interesting than others. Personally, I would rather read last week's *TV Guide* than superstring theory, even if superstring theory will indeed lead to a Theory of Everything. For unless the Theory of Everything is going to include a Theory of Achieving Universal Peace and Prosperity—which I somehow doubt—I can happily slog through the rest of my life without it. I consider it science that I (and any other reasonable person) don't need to bother with.

Moreover, surely few judicious citizens would give equal weight to an apparently successful clinical trial of a drug conducted by the pharmaceutical company manufacturing it, and a trial conducted by a disinterested party. That isn't the exercise of a particularly scientific rationality, it's just basic common sense. Similarly, as long as evolution and racism coexist, they will always overlap in a shadowy area known as scientific racism, which will be repudiated by most relevant practicing scientists (although unfortunately not by all). The point is, if we can generally reject scientific work that we judge likely to have been prejudiced by the financial or ideological commitments of the authors, can we not at least acknowledge the creationists for evincing a similarly critical faculty?

Seen in this light, the problem of creationism might not lie so much with their “anti-science” attitude, but with their placement of evolution in the bin of “rejected” science (alongside James Watson's infamous recent pronouncements on the intelligence of Africans), rather than that of “accepted” (alongside heliocentrism and radioactivity) or “passively tolerated” (alongside superstring theory and exobiology) science. The solution, then, wouldn't be to force-feed them Darwinism and berate them for their stupidity in rejecting it, but to learn what they find so distasteful in evolutionary theory, and to see what it takes to get them to reclassify it.

Which brings us back to *The God Delusion*. No, it isn't racist, but it certainly is provocatively ethnocentric. It's dumb, it's nasty, it's the product of obsession rather than scholarship. The primary research that went into the book was Google searches. For a clever turn, the book invokes The Flying Spaghetti Monster. So is this the level to which science education has now descended—the anti-social geek with the plastic shirt-protector trying to show how clever he is, at everyone else's expense?

That is what the book ultimately did for me—it reinforced the very worst stereotypes of the scientist: intensely focused but joyless, intolerant, angry and frustrated, knowledgeable while being almost unfathomably ignorant. It is not at all



science's finest moment. For an apostate's witty analysis of religion, the reader would be far better served by revisiting Mencken's (1930) *Treatise on the Gods*.

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