

GOD AND DARWIN

JASON ROSENHOUSE

Reviews of *Finding Darwin's God: A Scientist's Search for Common Ground Between God and Evolution*, by Kenneth R. Miller. New York: Harper Collins Inc, 1999, 338 pages. ISBN 0-06-017593-1 and *God After Darwin: A Theology of Evolution*, by John Haught. Boulder, CO: Westview Press, Perseus Books, 2000, 221 pages. ISBN: 0-8133-6723-9.

“We have thus arrived at the answer to our question, What is Darwinism? It is atheism.” This from Charles Hodge, a theologian at Princeton College, in 1874. Hodge chose his words carefully. By Darwinism he did not mean evolution, for that was an idea easily embraced by Christian theology. Rather, it was the combination of evolution with the eminently non-teleological mechanism of natural selection that earned his ire. Darwin's sin resided not in unraveling nature's past, but in removing any vestige of design from that past. Many modern theists would endorse this view. Indeed, the classical reconciliation of Christianity with evolution argues that evolution is God's *modus operandi* in creation, that the emergence of humanity was foreordained, and that unsupervised natural selection does not adequately explain the glories of nature. This is referred to as theistic evolution and has the endearing property of being logically possible.

Yet theistic evolution makes one wonder why God used a mechanism as clumsy as evolution when he might have created us *ex nihilo* with one waggle of his finger. Kenneth R. Miller, a cell biologist at Brown University, believes he has the answer. It is his contention that evolution in all of its undirected, contingent, red in tooth and claw glory is perfectly compatible with even the most traditional tenets of Christianity. He presents his case in a fascinating book called *Finding Darwin's God*. And though I will argue that Miller's arguments about God are unpersuasive, anyone will be richer for having read and considered them.

The core of Miller's argument - perhaps we should call it Miller's Dangerous Idea - is that God wished us to live in a fully materialistic

world, one wholly separate from the spiritual realm He inhabits and one whose laws and processes would eventually yield to scientific analysis. He also wished us to have genuine free will, lest we languish in the throes of a meaningless Newtonian determinism. This forced God to make certain decisions. What we perceive as evil, suffering, and contingency are just the logical consequences of those decisions. A creative mechanism based on contingency - evolution - was essential. "Clearly many people look at the string of historical contingencies leading to our species as something that diminishes the special nature of humankind. What they fail to appreciate is that the alternative, a strictly determined chain of events in which our emergence was preordained, would require a strictly determinant physical world. (p. 273)" Thus, the cruelty of nature is an inevitable byproduct of this mechanism. "How could he permit the carnage of war, the terror of natural disaster, the inhuman agony of famine and disease? He allows such things because He has made us material creatures, dependent upon the physical world for our existence. In such a world, the destruction of one form of life comes about as a natural consequence of the existence of another. (p. 279)"

But if we are the accidental products of history, then we are not the intentional products of God, right? Apparently not. "Yes the explosive diversification of life on this planet was an unpredictable and historically contingent process. So, for that matter, were the rise of Western civilization, the collapse of the Roman Empire, and the winning number in last night's lottery. We do not regard the indeterminate nature of any of these events in *human* history as antithetical to the existence of a Creator, so why should we regard similarly indeterminate events in *natural* history any differently? (p. 273)"

Miller's idea has ramifications for theist and atheist alike. For the theist it means that the argument from design, based as it is on the lack of a plausible naturalistic explanation for some natural phenomenon, is wrong in principle. There are no gaps in nature demanding supernatural explanations, only gaps in our knowledge waiting to be filled. For the atheist it means the factuality of nature can never disprove God's existence, for evil and suffering is tolerated as the only means of achieving greater ends. Mind you, Miller does not claim that science proves God's existence. He simply believes that modern science offers nothing to shake the faith of a committed Christian.

But Miller's argument has holes. The fact that God wished us to inhabit a physical world in no way implies that we must inhabit this *particular* world. Miller writes, "We cannot call evolution cruel if all we are doing is assigning to evolution the raw savagery of nature itself.

(p. 246)” He apparently believes that nature has certain immutable properties independent of God’s wishes. It doesn’t. A world in which tectonic plates do not shift would be just as materialistic as the one we are in. It would simply lack earthquakes. Materialism does not require that violent weather claim as many lives as it does, nor does it require that evolution proceed via suffering, death and extinction.

Miller’s reconciliation of contingency with divine will is similarly unsatisfying. Contingency in human history is tolerable because no find’s God’s purpose in the vicissitudes of human events. The universe was not created so Rome could fall. It *was* created, according to Christians, so humanity could fulfill its divine mandate. If that is true, then it is simply illogical to think the God would choose a mechanism that did not ensure humanity’s appearance.

Adding to the problem is Miller’s apparent confusion over what, exactly, contingency implies. He writes, “Did the ancestors of vertebrates *have* to survive the Cambrian? Did mammals *have* to evolve from vertebrates? Did one group of mammals, the primates, *have* to take to the trees? Was one tiny African branch of these tree climbers absolutely predestined to survive and give rise to *Homo sapiens*? The answer in each case is no. (p. 235)”

Clear enough, but what should we make of this? “As his great creation burst forth from the singularity of its origin, His laws would have set within it the seeds of galaxies, stars, and planets, the potential for life, the inevitability of change, and the confidence of emerging intelligence. (p. 252)”

Or this: “After 4.5 billion years, can we be sure He wouldn’t have been happy to wait a few million longer? If another group of animals had evolved to self-awareness, if another creature had shown itself worthy of a soul, can we really say for certain that god would have been less than pleased with his new Eve and Adam? I don’t think so. (p. 274)” But surely God would have been disappointed if after ten billion years the sun went nova, its light never warming anything more sophisticated than colonies of bacteria! That is the possibility that must be addressed before we can reconcile Christianity with contingency. Of course, it is conceivable that self-awareness could be foreordained where *Homo sapiens* are not. There is ample reason to believe this is untrue and Miller, at any rate, does not make this argument.

Perhaps aware of this difficulty, Miller twice suggests that the appearance of humanity could be explained as a miracle (p. 240 and p. 252). It certainly could be so explained, if we were inclined to accept theistic evolution. Miracles require a specific act of God and such an act is antithetical to Miller’s grand theme, since God has no need to

tinker with his creation. “The Western God created a world that is home to both humans and daffodils. God’s ability to act in that world need not be predicated on its material defects. (p. 266).”

Happily, this is not, primarily, a book on theology. It is about science and its influence on culture. Much of what Miller has to say is imply excellent. Like Miller, I deplore the rhetorical excesses of people like Richard Dawkins or Daniel Dennett who would blur the line between methodological and philosophical naturalism. Though I would quibble with a few of his specific examples, the chapter Miller devotes to these excesses is one of the best in the book.

The book’s first half, in which Miller outlines the case for evolution and refutes the arguments of creationists and intelligent design theorists, is masterful. Particularly impressive is his demolition of Michael Behe, who has argued that the irreducible complexity of various biochemical machines defies a Darwinian explanation. Miller meets the enemy on his own turf, providing the explanations Behe overlooks.

There is, alas, one exception to the general excellence of this half of the book. In a section devoted to demonstrating the sufficiency of natural selection for explaining evolutionary change, Miller criticizes the punctuated equilibrium theory of Gould and Eldredge. He writes, “The real point at issue is a simple one. What actually happens during those ‘instantaneous’ transitions to new species? (p. 116)” His answer - natural selection acting gradually on chance variations - is correct. And when one’s purpose is to refute Phillip Johnson’s claim of the absence of a plausible mechanism of evolutionary change it is indeed the central question. But there is nothing in punctuated equilibrium that questions the importance of natural selection. This is made obvious in Eldredge’s 1995 book *Reinventing Darwin*. Rather, the point of “punk eek” is that stasis is not merely something observed in the fossil record, it is a phenomenon in need of explanation. Miller overlooks this entirely.

Miller is an excellent writer. His arguments are presented with graceful, lucid prose that is a pleasure to read. I disagree with most of his major points, but they are a welcome and long overdue contribution to the debate.

1. GOD AFTER DARWIN

The problem is this: we can be pretty certain that science is telling us something factual about the world. Do we have any basis for thinking that theology is doing likewise? Mere logical consistency between science and religion is not adequate. Sufficiently imaginative people will

always be able to redefine God or reinterpret Scripture to keep religion one step ahead of the scientific juggernaut. But do we, by grafting God's existence onto the body of scientific knowledge, gain any insight into what is "really going on"?

Georgetown University theologian John Haught believes that we do. He has written several books on the interplay between science and religion, his most recent contribution dealing specifically with evolution. In *God After Darwin* he attempts to show that even the most brutal interpretations of Neo-Darwinism are not merely compatible with Christianity, but actually enhance our proper understanding of divine will. In his view, the "intelligent design theory" promoted by people like Phillip Johnson and Michael Behe is as intellectually empty as the vapid atheism of Daniel Dennett. His view is stated with admirable clarity early on: "We would have to agree, of course, that if atheism is the logical correlate of evolutionary science, then the day of religions and theologies is over. But as we shall see, such a judgment is hardly warranted. (p. 2)" Haught's arguments are fascinating and merit careful study. In the end, however, I don't believe his major claims are tenable.

Central to Haught's argument is the idea that we should not view God as one who created in the past and pushed the world forward from an initial primordial perfection. Rather, God should be viewed as pulling the world toward Him in an ongoing process of creation. "Correspondingly, the sense of where the reality of God is to be 'located' can also begin to shift from the One who abides vertically 'up above' to the one who comes into the world from 'up ahead' out of the realm of the future. (p. 39)" The evolutionary process, with its manifest directionality from simple to complex, is seen as an expression of the world's yearning for a relationship with God. Focusing excessively on design distracts us from the essential idea that living systems cannot thrive in a rigidly ordered environment.

Further, notions of divine grace should center on the idea of "suffering love" or kenosis. If God were constantly intervening in the evolutionary process, to mitigate suffering, for example, then we could not properly view the world as being separate from God himself. "God's love would refrain from forcefully stamping the divine presence or will upon the world, much less dissolving the world into God. Indeed, this love might event take the form of a self-withdrawal, precisely as the condition for allowing the world to emerge on its own so as to attain the possible status of being capable of a deep relationship with God. (p. 40)"

Haught argues that his notions of divine grace are not just a desperate attempt to save theism from evolution's assault. Rather, his ideas are more in keeping with traditional Christian scholarship than those of the intelligent design crowd. And armed with his revised conception of the divine, some difficult problems of theology become tractable. The suffering and contingency of life's evolution are merely necessary consequences of God's desire to open up the possibility of a truly new future to his creation. "Theologically speaking, we may surmise that evolution occurs at all only because in some analogous sense all of nature is being addressed by the future we call God. Evolution happens, ultimately, because of the 'coming of God' toward *the entire universe* from out of an always elusive future. (p. 99)" And if creation is an ongoing process, then we can hardly expect its present state to represent divine perfection. Though this may not be an emotionally satisfying resolution of the problem of evil, it does allow us to put suffering in a new light.

And what of the vexing problem of Christianity and environmentalism? If the Earth is just a holding tank for souls awaiting their judgment, then why should we worry about the state of the environment? Haught devotes a chapter to this, and his answer is elegant. "Hence by allowing the embryonic future to perish now at that hands of our own ecological carelessness and selfishness we not only violate nature's sacramental bearing but also turn away from the promise that lies embedded in all creation. (p. 151)"

By hypothesizing the existence of a personal God, we have, in Haught's view, a satisfactory explanation of why the world shows just the right balance of contingency, law, and time to make Darwinian evolution possible. We see in the study of information and complexity the echoes of the traditional religious notion of hierarchy; i.e. certain higher-order phenomena cannot be properly understood merely by analyzing their component parts. We can also explain the ubiquity of human religious experience. The widespread belief that the universe is the reflection of a divine plan is itself evidence of divine purpose. In short, we have in God the "ultimate explanation of the life-world. (p. 25)"

Before devoting the remainder of this essay to a dissection of Haught's worldview, let me state for the record that there is much in his book that is excellent. The chapter addressing the relationship between Christianity and ecology, for example, is inspiring. Anyone who has slogged through the brain-dead theology of various recent creationist tomes will find Haught's book to be a breath of fresh air.

But the fact remains that many of Haught's arguments rest upon a rotten foundation. On several fronts, Haught's treatment of current scientific issues is very superficial.

(1) *Directionality in Evolution.* Haught's argument is based largely on the idea of evolution being progressive. He writes, "Without too much difficulty, we can make out a kind of story line along which nature has traveled from trivial to more intricate and eventually sentient, conscious, and self-conscious states of being. (p. 117)" A skeptic could hardly ask that human myopia be expressed more clearly than that. Directionality in evolution is clear only if you start from the assumption that *Homo sapiens* is in some way distinguished from other species. Yes, the particular path through the tree of life that leads from primordial moneran to glorious humanity shows a trend from simple to complex. But so what? Most of the branches of life's tree do not show this trend. Why is ours singled out as being in some way indicative of life's general pattern? The definitive argument against the sort of directionality Haught considers "obvious" (p. 117) was made by Stephen Jay Gould in his book *Full House*. At the very least, Haught should explain why Gould is wrong.

(2) *Sociobiology.* Haught makes a lot of fuss about the religious "intuitions" that seem to be omnipresent in human society. Here is a representative quotation: "Most religions, in fact, have perceived in living beings a mysterious empowering spiritual force, identified in biblical circles as the 'Spirit of God'" (p. 58). Yet sociobiologists and evolutionary psychologists have offered plausible (if not proven) naturalistic explanations for such intuitions. Haught mentions sociobiology only to dismiss it as inadequate. He writes, "Seeking the reasons for good behavior in the aimless mechanics of genetic adaptation will do little to reinforce the much needed sense today that our moral life has the backing of the universe. (p. 124). But there is a world of difference between what *is needed*, and what *is*. Indeed, Haught inadvertently lends support to the sociobiological view by writing, "I am inclined to suspect that over the course of generations human moral aspiration would eventually wither and die unless it were sustained by a trust that the whole of being, including the physical universe, is the embodiment of transcendent meaning. (p. 122)" This suggests that human societies that possessed "genes for belief" really would have had a survival advantage over those that did not. Haught needs to explain why the sociobiologists are wrong, not why their message is unpleasant.

(3) *The Adequacy of Materialism.* What are we to make of the following statement: "The plausibility of materialism's account of evolution is contingent upon our accepting the assumption that nature is

inherently devoid of subjectivity, and that the evolutionary emergence of mind is a pure fluke, having nothing to do with the essence of the universe. As I noted earlier, materialist interpretations of evolution such as [Daniel] Dennett's, have so far shed no light whatsoever on the question of why living beings have developed something like an 'inner sense'" (p. 166-167). Well, materialist interpretations of evolution have also shed no light on why the giraffe has such a long neck. Should I conclude that long necks are somehow inherent in the fabric of the universe? The problem is with our paucity of data, not with our metaphysics.

Discerning the specific selection pressures that caused a particular anatomical feature to assume its present form is generally impossible. The fact is, however, that recent studies on apes and other mammals have shown rather conclusively that human consciousness is different only in degree, and not in kind, from that found in the animal kingdom. Haught does not explain why self-consciousness demands an explanation fundamentally different from that of other adaptations (if it is an adaptation, as opposed to a spandrel). He goes on to say that "unconscious modes of life, and forms of life that have not attained the level of self-awareness, are no less reproductively fit - and are perhaps even more so - than self-conscious ones. (p. 167-168). Since the term "reproductively fit" is meaningful only in the context of a specific environment, it is not clear to me what Haught is talking about.

(4) *The power of the Future*. Haught writes about the future as if it were a creative force. For example, "I would submit here that the novel informational possibilities that evolution has available to it arise from the always dawning future. It is the arrival of the future, and not the grinding onward of an algorithmic past, that accounts for the novelty in evolution. (p. 87)" With all due respect, this is gibberish. It is the imperfection of DNA-replication that accounts for the novelty in evolution. And it is innumerable historical contingencies lying in our distant past that account for the imperfection of DNA-replication. Haught does not believe that this explanation is adequate because of the informational content of genetic material. He writes, "The existence of life and the process of evolution require an informational coefficient that does not itself originate in any past series of mechanical causes(p. 87)" It is true, of course, that the informational content of genes cannot be discerned simply from an analysis of the nucleotides comprising their DNA. But it does not follow from this that the mere presence of information is not explainable in terms of the mindless interactions of matter. And as Richard Dawkins has argued in this magazine (See *Skeptic*, Vol. 7, No. 3), once natural selection has

a small amount of information to work with, perfectly mindless causes are adequate to explain why the quantity of information increases.

(5) *The Many-Worlds Hypothesis*. Finally, consider the following gem: “Of course, if you are truly addicted to the idea that our life-bearing universe is a purely random, undirected, and unintelligible occurrence, and that within it *must* in no sense be the product of divine intelligence and wisdom, you may imaginatively conjure up an endless series or proliferation of other ‘universes’, so as to increase the probability that randomness rules. (p. 35-36)” This from a man who believes it is the height of rationality to believe in an omnipotent, omnibenevolent deity whose existence is confirmed by nothing more solid than a handful of vague “intuitions” and the presence of self-conscious animals. The many “many-worlds” hypothesis at least has the benefit of following plausibly from known facts of modern physics. Haught’s theism is based on far less.

There is more to this book than I have summarized here, and I certainly recommend it to anyone interested in the science/religion schism. Haught offers an important reminder that neither the creationists nor the intelligent design theorists should be mistaken for Christianity’s spokesmen. Ultimately, though, I find it ironic that Haught believes that too many scientists have allowed their commitment to materialism to cloud their interpretation of nature’s data. I would argue that it is his commitment to Christian theism that prevents him from properly understanding the true nature of evolution.

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