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Review

Saving Us from Darwin, Part II

By Frederick C. Crews

The Faith of Biology and the Biology of Faith: Order, Meaning, and Free Will in Modern Medical Science
by Robert Pollack
Columbia University Press, 125 pp., $19.95

God After Darwin: A Theology of Evolution
by John F. Haught
Westview, 221 pp., $18.00 (paper)

Can a Darwinian Be a Christian? The Relationship Between Science and Religion
by Michael Ruse
Cambridge University Press, 233 pp., $24.95

Finding Darwin's God: A Scientist's Search for Common Ground Between God and Evolution
by Kenneth R. Miller
Cliff Street Books/ HarperCollins,338 pp., $14.00 (paper)

Rocks of Ages: Science and Religion in the Fullness of Life
by Stephen Jay Gould
Library of Contemporary Thought/Ballantine, 241 pp., $18.95

1.

In a recent essay in these pages I argued that "intelligent design"—the theory that cells, organs, and organisms betray unmistakable signs of having been fashioned by a divine hand—bears only a parodic relationship to a research-based scientific movement.[1] In a world where empirical issues were settled on strictly empirical grounds, ID would be a doctrine without a future. But scientific considerations can take a back seat when existential angst, moral passions, and protectiveness toward sacred tradition come into play.

One doesn't have to read much creationist literature, for example, before realizing that anti-Darwinian fervor has as much to do with moral anxiety as with articles of revealed truth. Creationists are sure that the social order will dissolve unless our children are taught that the human race was planted here by God with instructions for proper conduct. Crime, licentiousness, blasphemy, unchecked greed, narcotic stupefaction, abortion, the weakening of family bonds—all are blamed on Darwin, whose supposed message is that we are animals to whom everything is permitted. This is the "fatal glass of beer" approach to explaining decadence. Take one biology course that leaves Darwin unchallenged, it seems, and you're on your way to nihilism, Eminem, and drive-by shootings.

Crude though it is, such an outlook is not altogether dissimilar to that of prominent American neoconservatives who see their nation as consisting of two cultures, one of which is still guided by religious precepts while the other has abandoned itself to the indulgences of "the Sixties." Whatever the descriptive merits of that scheme, it exhibits

the same foreshortened and moralized idea of causality that we see among the creationists. If the social fabric appears to be fraying, it's less because objective conditions have changed than because the very principles of authority and order have been gradually undermined by atheistical thinkers from Marx, Nietzsche, and Freud through Herbert Marcuse, Norman Mailer, and Timothy Leary. And Darwin, despite his personal commitment to duty, sometimes makes his way onto the enemies list as well.

The most articulate proponent of the "two cultures" theory is the distinguished historian Gertrude Himmelfarb, who also happens to be the author of a learned study of Darwin and his milieu, published in 1959.[2] Like her husband, Irving Kristol, who has declared "the very concept of evolution questionable," Himmelfarb showed no patience with natural selection in her book. She aimed to prove that Darwin's "failures of logic and crudities of imagination emphasized the inherent faults of his theory.... The theory itself was defective, and no amount of tampering with it could have helped." Himmelfarb's *Darwin* remains an indispensable contribution to Victorian intellectual history, but its animus against Darwin and Darwinism makes the book read like a portent of the neoconservatives' realization that, by liberal default, they must be the party of the creator God.

In recent decades both Kristol and Himmelfarb have been ideological bellwethers for the monthly *Commentary*, which, interestingly enough, has itself entered combat in the Darwin wars. In 1996 the magazine caused a ripple of alarm in scientific circles by publishing David Berlinski's essay "The Deniable Darwin," a florid and flippant attack that rehearsed some of the time-worn creationist canards (natural selection is just a tautology, it contravenes the second law of thermodynamics, and so forth) while adding the latest arguments from intelligent design. And as if to show how unimpressed they were by the corrections that poured in from evolutionists, the editors brought Berlinski onstage for an encore in 1998, this time declaring that he hadn't been taken in by party-line apologetics for the Big Bang, either.[3]

In answering his dumbfounded critics, Berlinski—now a fellow of the Discovery Institute in Seattle, an organization founded to promote anti-Darwinian ideas—denied that he is a creationist. What he surely meant, however, was that he isn't a *young-Earth* creationist. His Darwin essay called Paley's 1802 argument from design "entirely compelling," leaving us with no reason to look beyond the following explanation of life: "God said: 'Let the waters swarm with swarms of living creatures, and let fowl fly above the earth in the open firmament of heaven.'" By his fellow anti-Darwinian Phillip Johnson's definition—"A creationist is simply a person who believes that God creates"—Berlinski is no less a creationist than every other member of the ID movement.

Commentary is not the only rightward- leaning magazine to have put out a welcome mat for intelligent design. For some time now, Richard John Neuhaus, editor of the conservative religious journal *First Things*, has been using Phillip Johnson as his authority on the failings of natural selection— this despite the fact that Johnson's willful incomprehension of the topic has been repeatedly documented by reviewers. On the dust jacket of *The Wedge of Truth*, furthermore, Neuhaus calls Johnson's case against Darwin "comprehensive and compellingly persuasive," adding, remarkably, that its equal may not be found "in all the vast literature on Darwinism, evolution, creation and theism."

Further: when, in 1995, the neoconservative *New Criterion* sought an appropriate reviewer for Daniel C. Dennett's *Darwin's Dangerous Idea*—a book that rivals Richard Dawkins's *The Blind Watchmaker* as creationism's bête noire—it was Johnson again who was chosen to administer the all-too-predictable put-down.[4] *The New Criterion*'s poor opinion of evolutionism can be traced to its managing editor Roger Kimball's esteem for the late philosopher David Stove, whose book *Darwinian Fairytales* (1995) is notable for its obtusely impressionistic way of evaluating scientific hypotheses. But since Kimball and *The New Criterion* regularly divide the world's thinkers into those who have and haven't undermined Western ethics, here once again the ultimate source of anti-Darwinian feeling may be moral gloom.

The case of *Commentary* looks more significant, however, because the magazine is published by the American Jewish Committee and is much concerned with defending Jewish beliefs and affinities. In lending their imprimatur to intelligent design, the editors can hardly have been unaware that they were joining forces with Christian zealots like Johnson, who has declared the Incarnation of Christ to be as certain as the proposition

"that apples fall down rather than up," or like William Dembski, whose ultimate thesis is that "all disciplines find their completion in Christ and cannot be properly understood apart from Christ." But *Commentary*'s willingness to submerge religious differences for the sake of an imagined solidarity is nothing new. Rallying around both "family values" and the modern state that occupies the biblical Holy Land, the magazine's guiding figures had previously acknowledged that they share some principles with the evangelical right.[5] That realignment reached a memorable climax when, in 1995, Norman Podhoretz extended a friendly hand to Pat Robertson despite the latter's authorship of *The New World Order,* a *Protocols*-style tract against "the Jews."[6]

Commentary prides itself on favoring pragmatic realism over wishful thinking; and where science and technology are concerned, you can expect its articles to claim the support of authenticated research. But there is one exception: evolutionary biology has been consigned to the Johnsonian limbo of "materialistic philosophy." Such, among those who see themselves as guardians of decency and order, is the power of resistance to the disturbing prospect of a world unsupervised by a transcendent moral sovereign. The result is that *Commentary*, in the company of other magazines that treat natural selection as an illusion, tacitly encourages creationists to advance toward their primary goal: adulterating the public school curriculum so that children and adolescents will be denied access to an empirically plausible understanding of human origins.

But what about the secular left? Surely, one might suppose, that faction, with its reflexive aversion to "faith-based" initiatives, can be counted upon to come to the aid of embattled evolutionism, and doubly so when some of the attacks are mounted in organs like *Commentary* and *The New Criterion*. This expectation, however, overlooks the antiscientific bias that has characterized much leftist thought for the past quarter-century.

Liberals and radicals who have been taught in college to believe that rival scientific paradigms are objectively incommensurable, that the real arbiter between theories is always sociopolitical power, and that Western science has been an oppressor of dispossessed women, minorities, and workers will be lukewarm at best toward Darwin.[7] The latter, after all, shared the prejudices of his age and allowed some of them to inform his speculations about racial hierarchy and innate female character. Then, too, there is the sorry record of Social Darwinism to reckon with. Insofar as it has become habitual to weigh theories according to the attitudinal failings of their devisers and apostles, natural selection is shunned by some progressives, who are thus in no position to resist the creationist offensive. And while other leftists do broadly accede to evolutionism, much of their polemical energy is directed not against creationists but against Darwinian "evolutionary psychologists," a.k.a. sociobiologists, who speculate about the adaptive origins of traits and institutions that persist today.

2.

Political suspicion on the left; fear of chaos on the right. Who will stand up for evolutionary biology and insist that it be taught without censorship or dilution? And who will register its challenge to human vanity without flinching? The answer seems obvious at first: people who employ Darwinian theory in their professional work. But even in this group we will see that frankness is less common than waffling and confusion. The problem, once again, is how to make room for God.

As even Phillip Johnson concedes, most of our religious sects are formally opposed to the campaign against Darwinism. Various church councils have avowed that evolution poses no threat to supernatural belief, and the same position is eagerly endorsed by scientific bodies.[8] Creationists who read those declarations, however, always notice that a key question has been fudged. What *kind* of God is consistent with evolutionary theory? Theistic evolutionism would seem to demote the shaper of the universe to a *deus absconditus* who long ago set some processes in motion and then withdrew from the scene. And we have already noted that even this faint whiff of divinity is more than the theory of natural selection strictly requires.

Because Americans on the whole profess faith in both science and a personal God, those who experience this conflict are eager to be told that it is easily resolved. The public appetite for such reassurance is never sated. Not surprisingly, then, universities have developed specialties in "science and religion," and one book of soothing wisdom can

hardly be scanned before the next entry appears in print. When coldly examined, however, these productions almost invariably prove to have adulterated scientific doctrine or to have emptied religious dogma of its commonly accepted meaning. And this legerdemain is never more brazen than when the scientific topic is Darwinism.

Take, for example, *The Faith of Biology and the Biology of Faith* by Robert Pollack, a molecular biologist at Columbia University and the director of its recently founded Center for the Study of Science and Religion. The title of Pollack's book appears to promise a vision encompassing the heavens above and the lab below. By the time he gets to evolution on page 2, however, the project has already collapsed. There he tells us that a Darwinian understanding of the natural world "is simply too terrifying and depressing to me to be borne without the emotional buffer of my own religion." By cleaving to the Torah he can lend "an irrational certainty of meaning and purpose to a set of data that otherwise show no sign of supporting any meaning to our lives on earth beyond that of being numbers in a cosmic lottery with no paymaster."

If Pollack's argument had stopped at this point, he could at least be praised for candor about his failure of nerve. But he is determined to place "feelings on a par with facts," and his book is therefore studded with clumsy attempts to make religion and science coincide after all by means of word magic. The rabbi and the molecular biologist, he extravagantly proposes, "share two beliefs founded entirely on faith...: that one day the text of their choice will be completely understood and that on that day death will have no power over us." Moreover, he declares that scientific insight comes from "an intrinsically unknowable place"—and who is the Unknowable One, he asks, if not God himself? Hence there is "only a semantic difference between scientific insight and what is called, in religious terms, revelation."

Pollack's half-formed ideas and bumbling prose stand in sharp contrast to the suaveness of John F. Haught, a professor of theology and director of yet another Center for the Study of Science and Religion, this one at Georgetown University. In *God After Darwin: A Theology of Evolution*, Haught acknowledges that the cruel indifference of Darwinian nature ought to jar the complacency of his fellow Catholics. But Haught himself remains unruffled; we need only bear in mind, he says, that our "thoughts about God after Darwin must be continuous with the authoritative scriptural and traditional sources of faith." In that spirit, Haught blithely assimilates Darwin to "humility theology," a body of thought depicting a God who "participates fully in the world's struggle and pain" and who chose to make himself vulnerable through the Incarnation and Crucifixion.

What God wants from planet Earth, Haught informs us, is "the building of 'soul' in humans." That job requires plenty of agony and death—just what we find, happily, in "the cruciform visage of nature reflected in Darwinian science." Evolution occurs, then, "because God is more interested in adventure than in preserving the status quo." And though the story of emergence and extinction may look rather drawn-out and impersonal from our sublunary point of view, Haught assures us that it's all going to be redeemed: "Everything whatsoever that occurs in evolution—all the suffering and tragedy as well as the emergence of new life and intense beauty—is 'saved' by being taken eternally into God's own feeling of the world."

Not surprisingly, Haught's favorite scientific figure is the long-discredited paleontologist and Jesuit priest Pierre Teilhard de Chardin, who argued, somewhat in Haught's own lofty style, that the evolutionary process is being drawn forward to an "Omega point," a universal acceptance of Jesus Christ as Lord. As Haught remarks, this conception relocates God in the future and depicts him not as a planner but as "a transcendent force of attraction." But it doesn't occur to Haught that such teleology is just what Darwin managed to subtract from science. Whether pushing us or pulling us toward his desired end, the Christian God is utterly extraneous to evolution as Darwin and his modern successors have understood it. Evolution is an undirected, reactive process—the exact opposite of Haught's construal —or it is nothing at all.

Unlike Pollack and Haught, the philosopher of science Michael Ruse, who now teaches at Florida State University, has an expert's understanding of Darwinian theory and a creditable history of standing up to creationists in court testimony. That experience has doubtless shown him how advantageous it is, in God's country, for proponents of evolution to earn the support of religious believers. In *Can a Darwinian Be a Christian?* the agnostic Ruse contends that only "tensions rather than absolute and ineradicable

contradictions" subsist between evolutionary and Christian doctrine, and he is sure that those tensions can be eased if both parties resolve to ponder "where and how they might be prepared to compromise...." But what gets compromised when Ruse attempts to build this conciliatory case is his own fidelity to the essential features of Darwinism.

Consider the question of original sin. An evolutionist, Ruse concedes, cannot be expected to lend credence to a guilt literally inherited from Adam's primordial transgression. Nevertheless, if we are willing to interpret the concept liberally, "a ready understanding of original sin offers itself." Successful adaptations generally "involve self-interest, if not outright selfishness, with the host of features and attitudes and characteristics that we all find offensive and that the Christian judges sinful." Hence "original sin is part of the biological package."

Can Ruse be serious here? How could the result of fortunate mutations be called a sin? Both "selfishness" and "altruism" are found in nature for the same amoral reason: under given circumstances they yield an adaptive (and eventually reproductive) advantage. Ruse has blundered into gross anthropomorphism, ascribing psychological and moral traits to organisms that were programmed by natural selection to attack, poison, and deceive without cogitation.

And then there is the Darwinian/ Christian impasse over miracles. According to Ruse, we needn't suppose that Jesus actually walked on water, produced food from nowhere, and raised the dead. Perhaps "people's hearts were so filled with love by Jesus' talk and presence that...they shared" their loaves and fishes. Or again, Lazarus may have been in a trance when awakened, and so perhaps was Jesus himself before his alleged resurrection—which, on the other hand, may have been only a metaphor for the "great joy and hope" excited in his followers. On and on plods Ruse, cheerfully turning wonders into banalities. Inside every Baptist, he seems to believe, there is a Unitarian struggling to get free.

In this book, but nowhere else in his soberly rational works, Ruse treats propositions about "God's judgement, the appropriateness of His righteous punishment, and the need and meaningfulness of His grace and forgiveness" as if they carried the same epistemic weight as propositions about the ancestry of birds and dolphins. As he knows full well, it just isn't so. However acrimoniously scientists may quarrel, they subscribe to canons of evidence that refer every dispute to the arbitration of discovered facts, whereas divine judgment, punishment, grace, and forgiveness are *irresolvably* mysterious. Insofar as Ruse tries to put that difference under the rug, he forsakes the empirical tradition that he has elsewhere worked so hard to protect.

The most startling disjunction of sensibility, however—a Jekyll–Hyde metamorphosis between the covers of one book—is manifested in Kenneth Miller's *Finding Darwin's God: A Scientist's Search for Common Ground Between God and Evolution*, a work whose first half, as I suggested in my earlier essay, constitutes the most trenchant refutation of the newer creationism to be found anywhere. Yet when Miller then tries to drag God and Darwin to the bargaining table, his sense of proportion and probability abandons him, and he himself proves to be just another "God of the gaps" creationist. That is, he joins Phillip Johnson, William Dembski, and company in seizing upon the not-yet-explained as if it must be a locus of intentional action by the Christian deity.

Like the sophists of intelligent design, Miller rounds up the usual atheistic suspects—Daniel Dennett and Richard Dawkins, along with Cornell's William B. Provine and Harvard's Edward O. Wilson and Richard Lewontin—and represents them as dangling before us Satan's offer: "Exchange your belief in God for a material theology of disbelief, and complete knowledge will be yours." As always, the choice is stark: we must either surrender to such meretricious temptation or leave some sensible room for theology of the more familiar kind. With Michael Behe and John Haught, Miller wants his biology to sit comfortably with the dogmas of Roman Catholicism—for example, that Jesus was born of a virgin. Such a contention, he says, "makes no scientific sense," but that's just the point. "What can science say about a miracle? Nothing. By definition, the miraculous is beyond explanation, beyond our understanding, beyond science."

As Miller realizes, however, an appeal to the ineffable contributes nothing to a project called "finding Darwin's God." His only recourse, if he is to stay faithful to Darwinian theory, is to make a more modest case for a measure of unpredictability that can then be

given a theological spin. "What if the regularities of nature," he asks, "were fashioned in such a way that they *themselves* allowed for the divine?" Quantum indeterminacy must have allowed God to shape evolution on the subatomic level "with care and with subtlety," gently nudging matter toward the emergence of "exactly what He was looking for—a creature who, like us, could know Him and love Him, could perceive the heavens and dream of the stars, a creature who would eventually discover the extraordinary process of evolution that filled His earth with so much life."

This case differs only marginally from the intelligent design argument that Miller decisively refuted in the opening chapters of his book. The distinction is simply that Miller's Darwinian God wouldn't have known in advance that you and I, who have finally pleased him by tumbling to his evolutionary scheme, would emerge from a line of apes. "Theologically," Miller explains, "the care that God takes *not* to intervene pointlessly in the world is an essential part of His plan for us"—or rather, of his plan for some intelligent species that luckily turned out to be us. Now that we're here, though, we humans can regard ourselves as "*both* the products of evolution and the apple of God's eye."

"In each age," Miller writes, God "finds a way to bring His message directly to us." But which divine message, among Earth's thousands, does he mean? Although he notes in passing that the Almighty neglected to get his redemptive word out to the Mayas and the Toltecs among others, he dismisses that anomaly with an indifferent shrug. By effectively reducing religion to the Western monotheisms and then glossing over *their* differences, he blots from view the world's pantheist gurus, animist shamans, and idol worshipers while making the quarrelsome ayatollahs, cardinals, presbyters, and rabbis look as if they are hearing the same clear voice from above.

Miller doesn't explain how he has been able to delve so unerringly into the Architect's cravings, schemes, and limitations. Nor does he answer the question that he himself crushingly deployed against the ID team: "Why did this magician, in order to produce the contemporary world, find it necessary to create and destroy creatures, habitats, and ecosystems millions of times over?" The God who entrusted his will entirely to mutation and selection can hardly be the one who, as Miller alleges, presented the ancient Hebrews with an ethical guidebook, "knowing exactly what they would understand"; who transformed himself into a man so as to settle accounts in his ledger of human sin; who "has a plan for each of us"; and who has endowed us with "immortal souls." As the fruit of a keen scientific mind, *Finding Darwin's God* appears to offer the strongest corroboration yet of William Provine's infamous rule: if you want to marry Christian doctrine with modern evolutionary biology, "you have to check your brains at the church-house door."[9]

3.

There is, however, one last way of ensuring that Darwinism won't inhibit religious belief and vice versa. It is proposed by America's best-known paleontologist, Stephen Jay Gould, whose record of opposition to creationism and to religious interference with scientific research is consistent and unimpeachable. In *Rocks of Ages: Science and Religion in the Fullness of Life*, Gould maintains that the two "magisteria," or domains of authority, will enjoy mutual respect if their adherents refrain from any attempted synthesis. With "NOMA"—that's "nonoverlapping magisteria"—kept firmly in mind, scientists and divines can carry out their equally valuable tasks, the investigation of nature and the pursuit of spiritual values and ethical rules, without trespassing on one another's terrain.

Gould's term "magisteria" was inspired by two popes who have issued dictates about evolution. In *Humani Generis* (1950), Pius XII ruled physical evolution to be compatible with orthodox faith but still unproven, and he warned against any supposition that the soul had emerged from natural processes. And in 1996 John Paul II took note of the convergent findings that by then had rendered evolution "more than a hypothesis"—a conclusion that Gould hails as his "favorite example of NOMA" emanating from an unexpected religious source. If this is really the Pope's considered view, says Gould, "we may rejoice in a pervasive and welcome consensus" between scientists and ecclesiastics.

Regrettably, however, Gould barely hints at a crucial point that ought to have muted his

hosanna. John Paul II's position on the supernatural origin of the soul is identical to that of every predecessor pope. "The Church's Magisterium," he wrote in the very statement that Gould hails,

> is directly concerned with the question of evolution, for it involves the conception of man: Revelation teaches that he was created in the image and likeness of God (cf. Gn 1:27–29). The conciliar Constitution *Gaudium et spes* has magnificently explained this doctrine, which...recalled that man is "the only creature on earth that God has wanted for its own sake." ...Pius XII stressed this essential point: if the human body takes its origin from pre-existent living matter, the spiritual soul is immediately created by God....
>
> Consequently, theories of evolution which, in accordance with the philosophies inspiring them, consider the mind as emerging from the forces of living matter, or as a mere epiphenomenon of this matter, are incompatible with the truth about man.[10]

This passage shows that the Church, while conceding that evolutionary science can no longer be snubbed, remains intransigently creationist where its own interests are concerned. Nor has Gould been unmindful of that fact. When he broached the NOMA rule in his *Natural History* column of March 1997, he voiced a suspicion that John Paul II's "insistence on divine infusion of the soul" was "a device for maintaining a belief in human superiority within an evolutionary world offering no privileged position to any creature." But he backed down at once, pleading in his next sentence that "souls represent a subject outside the magisterium of science." And now in *Rocks of Ages*, borrowing heavily from his *Natural History* piece, he has chosen to omit any mention of his misgivings.

Gould's concordat sounds more reasonable than the Pope's until one asks what it might mean in practice. As a paleontologist who was raised without a faith, Gould could be expected to feel more protective of one magisterium than the other. Sure enough, his NOMA forbids the miraculous and, by extension, any idea of divine action within the world: "Thou shalt not mix the magisteria by claiming that God directly ordains important events in the history of nature by special interference knowable only through revelation and not accessible to science." As Phillip Johnson has understandably complained, "This is 'separate but equal' of the *apartheid* variety." And John Haught chimes in, "No conceivable theology, by definition, could ever live comfortably with evolution if Gould's claim is correct that Darwin's theory inevitably entails a cosmos devoid of directionality and overall significance."

Rocks of Ages sounds like an extended effort to soften Gould's peace-on-my-terms through flattery of the pious. The strain is apparent in his uncharacteristically slick and sentimental prose:

> ...Science gets the age of rocks, and religion the rock of ages; science studies how the heavens go, religion how to go to heaven.
>
> I join nearly all people of goodwill in wishing to see two old and cherished institutions, our two rocks of ages—science and religion—coexisting in peace while each works to make a distinctive patch for the integrated coat of many colors that will celebrate the distinctions of our lives, yet cloak human nakedness in a seamless covering called wisdom.

Compare these excerpts, for tone and content, with what Gould spontaneously told a television interviewer in 1998:

> I think that notion that we are all in the bosom of Abraham or are in God's embracing love is—look, it's a tough life and if you can delude yourself into thinking that there's all some warm and fuzzy meaning to it all, it's enormously comforting. But I do think it's just a story we tell ourselves.

I am not the first commentator to point out that there is something contradictory about Gould's attempt, in *Rocks of Ages*, to endear himself to believers by praising their "wisdom" while reprimanding atheists for their "aggressive advocacy" of a position

scarcely distinguishable from his own.

On one point, however, Gould is perfectly candid. In order to make his "nonoverlapping magisteria" palatable to both parties, he has set aside considerations of truth and followed what he calls a "'Goldilocks principle' of 'just right' between too much and too little.... NOMA represents the bed of proper firmness, and the right amount of oatmeal at the right temperature." "Oatmeal" is right. Instead of grappling with the issues that seriously divide religious and scientific thinkers, as Ruse and Miller at least attempt to do, Gould delivers gratuitous restraining orders to both factions. In exchange for abandoning their immanent God and settling for a watery deism, the religionists get the realm of ethics largely to themselves, while scientists are admonished to eschew "invalid forays into the magisterium of moral argument." But *Rocks of Ages* is itself a moral argument proffered by a scientist and an infidel—and why not?

As Gould maintains, scientific facts and theories don't tell us how we ought to conduct ourselves. This doesn't mean, however, that ethics can be confidently entrusted to shepherds of souls. Undoubtedly, fear of God makes for social cohesion and moral restraint, at least toward those who share our faith; and many noble causes are championed by people who think they are implementing his wishes. But religious certitude can also remain fixated on ancient prejudices and prohibitions that dehumanize outsiders, coarsen ethical calculation, and retard social enlightenment. If he weren't bent on playing the roving ambassador between two wary camps, Gould would be the first person to acknowledge this obvious truth.

Both Gould and many of his readers want to believe that liberty begins where biology ceases to hold sway. We live, he writes, in a universe "indifferent to our suffering, and therefore offering us maximal freedom to thrive, or to fail, in our own chosen way." Ringing words, but what do they mean? The universe is also indifferent to a mouse being tossed and tortured by a cat, but the mouse's freedom is no greater for that. The options we enjoy as a species that has staked its fate on intelligence and foresight are surely a gift of our staggeringly complex neural circuitry, which is natural selection's boldest experiment in trading blind instinct for feedback mechanisms that allow dangers to be consciously assessed and circumvented. By shifting levels of discourse and proclaiming that we acquire our scope for action from a mere absence of interference by "the universe," Gould has momentarily left science behind and become a theologian, albeit an existentialist one.

The evasions practiced by Pollack, Haught, Ruse, Miller, and now Gould, in concert with those of the intelli-gent design crew, remind us that Darwinism, despite its radical effect on science, has yet to temper the self-centered way in which we assess our place and actions in the world. Think of the shadows now falling across our planet: overpopulation, pollution, dwindling and maldistributed resources, climatic disruption, new and resurgent plagues, ethnic and religious hatred, the ravaging of forests and jungles, and the consequent loss of thousands of species per year—the greatest mass extinction, it has been said, since the age of the dinosaurs. So long as we regard ourselves as creatures apart who need only repent of our personal sins to retain heaven's blessing, we won't take the full measure of our species-wide responsibility for these calamities.

An evolutionary perspective, by contrast, can trace our present woes to the dawn of agriculture ten thousand years ago, when, as Niles Eldredge has observed, we became "the first species in the entire 3.8-billion-year history of life to stop living inside local ecosystems."[11] Today, when we have burst from six million to six billion exploiters of a biosphere whose resilience can no longer be assumed, the time has run out for telling ourselves that we are the darlings of a deity who placed nature here for our convenience. We are the most resourceful, but also the most dangerous and disruptive, animals in this corner of the universe. A Darwinian understanding of how we got that way could be the first step toward a wider ethics commensurate with our real transgressions, not against God but against Earth itself and its myriad forms of life.

—This is the second of two articles.

Notes

[1]See my essay "Saving Us from Darwin," *The New York Review*, October 4, 2001.

[2] See Gertrude Himmelfarb, *Darwin and the Darwinian Revolution* (1959; Elephant Paperbacks, 1996); On *Looking into the Abyss: Untimely Thoughts on Culture and Society* (Knopf, 1994); *The De-moralization of Society: From Victorian Virtues to Modern Values* (Knopf, 1995); *One Nation, Two Cultures* (Knopf, 1999); and "Two Nations or Two Cultures?," *Commentary*, January 2001, pp. 29–30.

[3] David Berlinski, "The Deniable Darwin," *Commentary*, June 1996, pp. 19– 29; and "Was There a Big Bang?," February 1998, pp. 28–38. In a more recent piece for *Commentary*, Berlinski quietly backed off from his opposition to the Big Bang but resumed his emphasis on the inability of science to cope with the ultimate mystery of existence and life. See "What Brings a World into Being?," *Commentary*, April 2001, pp. 17–23.

[4] See Phillip E. Johnson, "Daniel Dennett's Dangerous Idea," *The New Criterion*, October 1995, pp. 9–14.

[5]See, e.g., Irving Kristol, "The Political Dilemma of American Jews," *Commentary*, July 1984, pp. 23–29.

[6] Norman Podhoretz, "In the Matter of Pat Robertson," *Commentary*, August 1995, pp. 27–32. For discussion of *The New World Order*, see Michael Lind, "Rev. Robertson's Grand International Conspiracy Theory," *The New York Review*, February 2, 1995, pp. 21–25.

[7] It is significant, in this regard, that Phillip Johnson is fond of citing the chief advocates of incommensurability, Paul Feyerabend and Thomas Kuhn, in his own attempts to decertify Darwinism. As he wrote in a newsletter recalling a colloquium with political science professors on one of his campus visits, "I told them I was a postmodernist and deconstructionist just like them, but aiming at a slightly different target." Quoted by Robert T. Pennock, *Tower of Babel: The Evidence Against the New Creationism* (Bradford/MIT Press, 2000), p. 210.

[8] A sampling of these statements can be found in *Darwin: A Norton Critical Edition*, edited by Philip Appleman, third edition (Norton, 2001), pp. 525– 533, 613–623. This volume is the most convenient collection of readings surrounding Darwin's career and its significance.

[9] William B. Provine, "Evolution and the Foundation of Ethics," in *Science, Technology, and Social Progress*, edited by Steven L. Goldman (Lehigh University Press, 1989), p. 253.

[10]John Paul II, "Message to the Pontifical Academy of Sciences," reprinted in "The Pope's Message on Evolution and Four Commentaries," *The Quarterly Review of Biology*, Vol. 72, No. 4 (December 1997), pp. 382–383.

[11]Niles Eldredge, *The Triumph of Evolution: And the Failure of Creationism* (Freeman, 2000), p. 16.