

is no reason to suppose that this quest is a failure from the outset simply because it represents the termination of an explanatory process. Yet an analogous quest for an irreducible explanation lies at the heart of the scientific quest. There is no logical inconsistency, no conceptual flaw, no self-contradiction involved.

Dawkins then sets out an argument that makes little sense, either in the brief and hasty statement offered in *The God Delusion* or the more expanded versions he set out elsewhere. In a somewhat patchy and derisory account of the "anthropic principle," Dawkins points out the sheer improbability of our existence. Belief in God, he then argues, represents belief in a being whose existence must be even more complex—and therefore more improbable. Yet this leap from the recognition of complexity to the assertion of improbability is highly problematic. Why is something complex improbable? A "theory of everything" may well be more complex than the lesser theories that it explains—but what has that to do with its improbability?

But let's pause for a moment. The one inescapable and highly improbable fact about the world is that we, as reflective human beings, are in fact here. Now it is virtually impossible to quantify how improbable the existence of humanity is. Dawkins himself is clear, especially in *Climbing Mount Improbable*, that it is very, very improbable.²¹ *But we are here.* The very fact that we are puzzling about how we came to be here is dependent on the fact that we are here and are thus able to reflect on the likelihood of this actuality. Perhaps we need to appreciate that there are many things that seem improbable—but improbability does not, and never has, entailed nonexistence. We may be highly improbable—yet we are

here. The issue, then, is not whether God is *probable* but whether God is *actual*.

THE GOD OF THE GAPS

In *The God Delusion* Dawkins criticizes "the worship of gaps." This is a reference to an approach to Christian apologetics that came to prominence during the eighteenth and nineteenth centuries—the so-called God of the gaps approach.²² In its simplest form it asserted that there were necessarily "gaps" in a naturalist or scientific understanding of reality. At certain points, William Paley's famous *Natural Theology* (1801) uses arguments along these lines. It was argued that God needs to be proposed in order to deal with these gaps in scientific understanding.

It was a foolish move and was increasingly abandoned in the twentieth century. Oxford's first professor of theoretical chemistry, the noted Methodist lay preacher Charles A. Coulson, damned it with the telling phrase "the God of the gaps." In its place he urged a comprehensive account of reality, which stressed the explanatory capacity of the Christian faith as a whole rather than a retreat into ever-diminishing gaps.²³ Dawkins's criticism of those who "worship the gaps," despite its overstatements, is clearly appropriate and valid. So we must thank him for helping us kill off this outdated false turn in the history of Christian apologetics. It is a good example of how a dialogue between science and Christian theology can lead to some useful outcomes.

Unfortunately, having made such a good point, Dawkins then weakens his argument by suggesting that all religious people try to stop scientists from exploring those gaps: "one of the truly bad ef-

fects of religion is that it teaches us that it is a virtue to be satisfied with not understanding."²⁴ While that may be true of some more exotic forms of Christian theology, it is most emphatically not characteristic of its approaches. It's a crass generalization that ruins a perfectly interesting discussion.

After all, there is nothing wrong with admitting limits to our understanding, partly arising from the limits of science itself, and partly from the limited human capacity to comprehend. As Dawkins himself pointed out elsewhere: "Modern physics teaches us that there is more to truth than meets the eye; or than meets the all too limited human mind, evolved as it was to cope with medium-sized objects moving at medium speeds through medium distances in Africa."²⁵

It's hardly surprising that this "all too limited" human mind should encounter severe difficulties when dealing with anything beyond the world of everyday experience. The idea of "mystery" arises constantly as the human mind struggles to grasp some ideas. That's certainly true of science; it's also true of religion.

The real problem here, however, is the forced relocation of God by doubtless well-intentioned Christian apologists into the hidden recesses of the universe, beyond evaluation or investigation. Now that's a real concern. For this strategy is still used by the intelligent design movement—a movement, based primarily in North America, that argues for an "intelligent Designer" based on gaps in scientific explanation, such as the "irreducible complexity" of the world. It is not an approach which I accept, either on scientific or theological grounds. In my view, those who adopt this approach make Christianity deeply—and needlessly—vulnerable to scientific progress.

But the "God of the gaps" approach is only one of many Christian approaches to the question of how the God hypothesis makes sense of things. In my view it was misguided; it was a failed apologetic strategy from an earlier period in history that has now been rendered obsolete. This point has been taken on board by Christian theologians and philosophers of religion throughout the twentieth century who have now reverted to older, more appropriate ways of dealing with this question. For instance, the Oxford philosopher Richard Swinburne is one of many writers to argue that the capacity of science to explain itself requires explanation—and that the most economical and reliable account of this explanatory capacity lies in the notion of a Creator God.²⁶

Swinburne's argument asserts that the intelligibility of the universe itself needs explanation. It is therefore not the *gaps* in our understanding of the world which point to God but rather the very *comprehensibility* of scientific and other forms of understanding that requires an explanation. In brief, the argument is that *explicability itself requires explanation*. The more scientific advance is achieved, the greater will be our understanding of the universe—and hence the greater need to explain this very success. It is an approach which commends and encourages scientific investigation, not seeks to inhibit it.

But what of the relationship of science and religion more generally? Dawkins has had much to say on this, and we must move on to consider it.

Has Science Disproved God?

UNDERLYING THE AGENDA OF *THE GOD DELUSION* is a pervasive belief that science has disproved God. Those who continue to believe in God are simply obscurantist, superstitious reactionaries, who are in complete denial about the victorious advance of the sciences, which have eliminated God from even the most minuscule gaps in our understanding of the universe. Atheism is the only option for the serious, progressive, thinking person.

But it's not that simple—and just about every natural scientist that I have talked to about this issue knows this. We have already noted Stephen Jay Gould's rejection of any brash equation of scientific excellence with an atheist faith. As Gould observed in *Rocks of Ages*, based on the religious views of leading evolutionary biol-

ogists: "Either half my colleagues are enormously stupid, or else the science of Darwinism is fully compatible with conventional religious beliefs—and equally compatible with atheism."¹ As I pointed out in *Dawkins' God*, his point is fair and widely accepted: nature can be interpreted in a theistic or in an atheistic way—but it demands neither of these. Both are genuine intellectual possibilities for science.

The fact that America's leading evolutionary biologist should make such a statement outrages Dawkins. How could he say such a thing! Dawkins dismisses Gould's thoughts without giving them serious consideration. "I simply do not believe that Gould could possibly have meant much of what he wrote in *Rocks of Ages*."² This creedal statement is Dawkins's substitute for a response. It simply will not do. For Gould has simply articulated the widely held view that there are limits to science. The same view, much to Dawkins's irritation, is found in Martin Rees's admirable *Cosmic Habitat*, which (entirely reasonably) points out that some ultimate questions "lie beyond science."³ As Rees is the president of the Royal Society, which brings together Britain's leading scientists, his comments deserve careful and critical attention.

The fundamental issue confronting the sciences is how to make sense of a highly complex, multifaceted, multilayered reality. This fundamental question in human knowledge has been much discussed by philosophers of science, and often ignored by those who, for their own reasons, want to portray science as the only viable route to genuine knowledge. Above all, it pulls the rug out from under those who want to talk simplistically about scientific "proof" or "disproof" of such things as the meaning of life or the

existence of God. The natural sciences depend on inductive inference, which is a matter of "weighing evidence and judging probability, not of proof."⁴ Competing explanations are evident at every level of the human endeavor to represent the world—from the details of quantum mechanics to what Karl Popper termed "ultimate questions" of meaning.

This means that the great questions of life (some of which are also scientific questions) cannot be answered with any degree of certainty. Any given set of observations can be explained by a number of theories. To use the jargon of the philosophy of science: theories are underdetermined by the evidence. The question then arises: what criteria can be used to decide between them, especially when they are "empirically equivalent"? Simplicity? Beauty? The debate rages, unresolved. And its outcome is entirely to be expected: the great questions remain unanswered. There can be no question of scientific "proof" of ultimate questions. Either we cannot answer them or we must answer them on grounds other than the sciences.

THE LIMITS OF SCIENCE?

Science is the only reliable tool that we possess to understand the world. It has no limits. We may not know something now—but we will in the future. It is just a matter of time. This view, found throughout Dawkins's body of writings, is given added emphasis in *The God Delusion*, which offers a vigorous defense of the universal scope and conceptual elegance of the natural sciences. It is an idea that is by no means specific to Dawkins, who here both reflects and extends a reductive approach to reality found in earlier writers such as Francis Crick.⁵ The point is simple: there are no

“gaps” in which God can hide. Science will explain everything—including why some still believe in such a ridiculous idea as God. Yet it is an approach that simply cannot be sustained, either as representative of the scientific community or as a self-evidently correct position, irrespective of what that community makes of it.

To avoid misunderstanding, let's be quite clear that suggesting that science may have its limits is in no way a criticism or defamation of the scientific method. Dawkins does, I have to say with regret, tend to portray anyone raising questions about the scope of the sciences as a science-hating idiot. Yet there is a genuine question here. Every intellectual tool that we possess needs to be calibrated—in other words, to be examined to identify the conditions under which it is reliable. The question of whether science has limits is certainly not improper, nor does a positive answer to the question in any way represent a lapse into some kind of superstition. It is simply a legitimate demand for calibration of intellectual accuracy.

To explore this question, let's consider a statement made by Dawkins in his first work, *The Selfish Gene*.

[Genes] swarm in huge colonies, safe inside gigantic lumbering robots, sealed off from the outside world, communicating with it by tortuous indirect routes, manipulating it by remote control. They are in you and me; they created us, body and mind; and their preservation is the ultimate rationale for our existence.⁶

We see here a powerful and influential interpretation of a basic scientific concept. But are these strongly interpretative statements themselves actually *scientific*?

To appreciate the issue, consider the following rewriting of this paragraph by the celebrated Oxford physiologist and systems biologist Denis Noble. What is proven empirical fact is retained; what is interpretative has been changed, this time offering a somewhat different reading of things.

[Genes] are trapped in huge colonies, locked inside highly intelligent beings, moulded by the outside world, communicating with it by complex processes, through which, blindly, as if by magic, function emerges. They are in you and me; we are the system that allows their code to be read; and their preservation is totally dependent on the joy that we experience in reproducing ourselves. We are the ultimate rationale for their existence.⁷

Dawkins and Noble see things in completely different ways. (I recommend reading both statements slowly and carefully to appreciate the difference.) They simply cannot both be right. Both smuggle in a series of quite different value judgments and metaphysical statements. Yet their statements are “empirically equivalent.” In other words, they both have equally good grounding in observation and experimental evidence. So which is right? Which is more scientific? How could we decide which is to be preferred on scientific grounds? As Noble observes—and Dawkins concurs—“no-one seems to be able to think of an experiment that would detect an empirical difference between them.”⁸

In a sophisticated recent critique of the philosophical shallowness of much contemporary scientific writing, particularly in the neurosciences, Max Bennett and Peter Hacker direct particular

criticism against the naive "science explains everything" outlook that Dawkins seems determined to advance.⁹ Scientific theories cannot be said to "explain the world"—they only explain the *phenomena* that are observed within the world. Furthermore, they argue, scientific theories do not and are not intended to describe and explain "everything about the world"—such as its purpose. Law, economics and sociology can be cited as examples of disciplines which engage with domain-specific phenomena without in any way having to regard themselves as somehow being inferior to or dependent on the natural sciences.

Yet most important, there are many questions that by their very nature must be recognized to lie beyond the legitimate scope of the scientific method, as this is normally understood. For example, is there purpose within nature? Dawkins regards this as a spurious nonquestion. Yet this is hardly an illegitimate question for human beings to ask or to hope to have answered. Bennett and Hacker point out that the natural sciences are not in a position to comment on this if their methods are applied legitimately.¹⁰ The question cannot be dismissed as illegitimate or nonsensical; it is simply being declared to lie beyond the scope of the scientific method. If it can be answered, it must be answered on other grounds.

This point was made repeatedly by Peter Medawar, an Oxford immunologist who won the Nobel Prize for medicine for the discovery of acquired immunological tolerance. In a significant publication titled *The Limits of Science*, Medawar explored the question of how science was limited by the nature of reality. Emphasizing that "science is incomparably the most successful enterprise human beings have ever engaged upon," he distinguishes between

what he calls "transcendent" questions, which are better left to religion and metaphysics, and questions about the organization and structure of the material universe. With regard to the latter, he argues, there are no limits to the possibilities of scientific achievement. He thus agrees with Dawkins—but only by defining and limiting the domain within which the sciences possess such competency.

So what of other questions? What about the question of God? Or of whether there is purpose within the universe? As if preempting Dawkins's brash and simplistic take on the sciences, Medawar suggests that scientists need to be cautious about their pronouncements on these matters lest they lose the trust of the public by confident and dogmatic overstatements. Though a self-confessed rationalist, Medawar is clear on this matter:

That there is indeed a limit upon science is made very likely by the existence of questions that science cannot answer, and that no conceivable advance of science would empower it to answer. . . . I have in mind such questions as:

How did everything begin?

What are we all here for?

What is the point of living?

Doctrinaire positivism—now something of a period piece—dismissed all such questions as nonquestions or pseudo-questions such as only simpletons ask and only charlatans profess to be able to answer.¹¹

Perhaps *The God Delusion* might have taken Medawar by surprise, on account of its late flowering of precisely that "doctrinaire

positivism" which he had, happily yet apparently prematurely, believed to be dead.

NOMAs AND POMAs

Our brief discussion of the limits of science suggests that the natural sciences, philosophy, religion and literature all have a legitimate place in the human quest for truth and meaning. This is a widely held view, both in Western culture at large and even within many sections of the scientific community itself. However, it is not universally held within that community. The somewhat ugly term *scientism* has now emerged to designate those natural scientists who refuse to concede any limits to the sciences—such as Dawkins.¹² The issues are encountered at several points in *The God Delusion*, especially in Dawkins's critique of Stephen Jay Gould's idea of the NOMA (nonoverlapping magisteria) of science and religion.

On Gould's view the "magisterium of science" deals with the "empirical realm," whereas the "magisterium of religion" deals with "questions of ultimate meaning." (The term *magisterium* is best understood as a "sphere of authority" or "domain of competency.") Gould holds that these two magisteria do not overlap. I think he's wrong. Dawkins also thinks he's wrong, although for rather different reasons. For Dawkins there is only one *magisterium*—empirical reality. This is the only reality that exists. The idea of allowing theology to speak about anything is outrageous. "Why are scientists so cravenly respectful towards the ambitions of theologians, over questions that theologians are certainly no more qualified to answer than scientists themselves?"¹³ It's an interesting piece of rhetoric, but it doesn't even begin to address the issues

that Gould rightly raised but answered wrongly.

For there is, of course, a third option—that of "partially overlapping magisteria" (a POMA, so to speak), reflecting a realization that science and religion offer possibilities of cross-fertilization on account of the interpenetration of their subjects and methods. One obvious exponent of this view is Francis Collins, an evolutionary biologist who heads up the famous Human Genome Project. Collins speaks of "a richly satisfying harmony between the scientific and spiritual worldviews."¹⁴ "The principles of faith are," he suggests, "complementary with the principles of science." Others can easily be cited, from many scientific disciplines, making substantially the same point. In my own "scientific theology" project I explore how theology can learn from the methodology of the natural sciences in exploring and developing its ideas.¹⁵ This approach of "overlapping magisteria" is implicit in the philosophy of "critical realism," which is currently having such an impact on illuminating the relationship of the natural and social sciences.¹⁶

It's not Gould versus Dawkins here, as if these two positions define the only intellectual options available to us. At times, Dawkins seems to assume that discrediting Gould necessarily implies the validation of his own position. The reality, however, is that Gould and Dawkins represent only two positions on a broad spectrum of possibilities already well known to scholarship. The inadequacies of both suggest that these alternatives merit closer examination in the future.

THE WARFARE OF SCIENCE AND RELIGION?

Science has, in Dawkins's view, wrecked faith in God, relegating God to the margins of culture, where he is embraced by deluded fa-

natics. There's an obvious problem, of course—namely, that rather a lot of scientists do believe in God. *The God Delusion* was published in 2006. In that same year three other books were published by leading research scientists. Owen Gingerich, a noted Harvard astronomer, produced *God's Universe*, declaring that “the universe has been created with intention and purpose, and that this belief does not interfere with the scientific enterprise.”¹⁷ Francis Collins published his *Language of God*, which argues that the wonder and ordering of nature points to a Creator God, very much along the lines of the traditional Christian conception. In this book Collins describes his own conversion from atheism to Christian faith. This hardly fits Dawkins's rigid insistence that real scientists are atheists.

A few months later the cosmologist Paul Davies published his *Goldilocks Enigma*, arguing for the existence of “fine-tuning” in the universe. For Davies, the bio-friendliness of the universe points to an overarching principle that somehow pushes the universe toward the development of life and mind. The idea that there is any evidence of purpose or design in the universe is, of course, dismissed out of hand by Dawkins. Davies has other ideas. While not subscribing to a traditional Christian notion of God, there's something divine out there. Or maybe in there.

Some surveys help cast at least a little light on this. Back in 1916, active scientists were asked whether they believed in God—specifically, a God who actively communicates with humanity and to whom one may pray “in expectation of receiving an answer.” Deists don't believe in God, by this definition. The results are well-known: roughly 40 percent did believe in this kind of God, 40 percent did not and 20 percent were not sure. The survey was re-

peated in 1997, using precisely the same question, and found pretty much the same pattern, with a slight increase in those who did not (up to 45 percent). The number of those who did believe in such a God remained stable at about 40 percent.

These results, of course, can be spun in all kinds of ways. Atheists tend to interpret them to say “most scientists don't believe in God.” It's not that simple. It could equally be interpreted to mean “most scientists do not disbelieve in God,” in that 55 percent either believe in God or are agnostic. Two points, however, must be borne in mind.

1. James Leuba, who conducted the original survey in 1916, predicted that the number of scientists disbelieving in God would rise significantly over time, as a result of general improvements in education. There is a small increase in the number of those who disbelieve and a corresponding diminution in those who are agnostic—but not any significant reduction in those who believe.
2. Once more, it must be emphasized that scientists were asked a highly specific question, namely, did those questioned believe in a personal God who might be expected to answer prayer? This rules out all those who believe that the evidence points to some kind of deity or supreme spiritual principle—such as Paul Davies. If the question had been framed in more general terms, a larger positive response might be expected on both occasions. The precise nature of this question is often overlooked by those commenting on both the 1916 and 1997 results.

But the fine details of such surveys are actually beside the point. Dawkins is forced to contend with the highly awkward fact that his view that the natural sciences are an intellectual superhighway

to atheism is rejected by most scientists, irrespective of their religious views. Most unbelieving scientists of my acquaintance are atheists on grounds other than their science; they bring those assumptions *to* their science rather than basing them *on* their science. Indeed, if my own personal conversations are anything to go by, some of Dawkins's most vociferous critics among scientists are actually atheists. His dogmatic insistence that all "real" scientists ought to be atheists has met with fierce resistance from precisely the community that he believes should be his fiercest and most loyal supporter. Dawkins clearly has no mandate whatsoever to speak for the scientific community at this point or on this topic. There is a massive observational discrepancy between the number of scientists that Dawkins believes should be atheists and those who are so in practice.

Dawkins deals with this problem in a thoroughly unacceptable manner. For instance, consider his remarks about Freeman Dyson, a physicist widely tipped to win a Nobel Prize for his groundbreaking work in quantum electrodynamics. On being awarded the Templeton Prize in Religion in 2000, Dyson gave an acceptance speech celebrating the achievements of religion, while noting (and criticizing) its downside. He was also clear about the downside of atheism, noting that "the two individuals who epitomized the evils of our century, Adolf Hitler and Joseph Stalin, were both avowed atheists." Dawkins regarded this as a craven act of apostasy and betrayal, offering "an endorsement of religion by one of the world's most distinguished physicists."¹⁸

But worse was to come. When Dyson commented that he was a Christian who wasn't particularly interested in the doctrine of the

Trinity, Dawkins insisted that this meant that Dyson wasn't a Christian at all. He was just *pretending* to be religious! "Isn't that just what any atheistic scientist *would* say, if he wanted to sound Christian?"¹⁹ Is the implication that Dyson is being meretriciously compliant, feigning an interest in religion for financial gain? Is Dawkins saying that Dyson just wanted to "sound" Christian, when he was really an atheist? The same is true of Einstein, who often used religious language and imagery in his accounts of science.²⁰

Here, as elsewhere, Dawkins is driven by his core assumption that *real scientists must be atheists*. They simply cannot mean it when they own up to religious beliefs, interests or commitments. I'm not sure what kind of people Dawkins hopes to persuade with this refusal to believe his fellow scientists. It just represents the triumph of dogma over observation.

So why are so many scientists religious? The obvious and most intellectually satisfying explanation of this is not difficult to identify. It is well known that the natural world is conceptually malleable. It can be interpreted, without any loss of intellectual integrity, in a number of different ways. Some read or interpret nature in an atheist way. Others read it in a deistic way, seeing it as pointing to a Creator divinity, who is no longer involved in its affairs. God winds up the clock, then leaves it to work on its own. Others take a more specifically Christian view, believing in a God who both creates and sustains. Others take a more spiritualized view, speaking more vaguely of some "life force."

The point is simple: nature is open to many legitimate interpretations. It can be interpreted in atheist, deist, theist and many other ways—but it does not demand to be interpreted in any of

these. One can be a "real" scientist without being committed to any specific religious, spiritual or antireligious view of the world. This, I may add, is the view of most scientists I speak to, including those who self-define as atheists. Unlike dogmatic atheists, they can understand perfectly well why some of their colleagues adopt a Christian view of the world. They may not agree with that approach, but they're prepared to respect it.

Dawkins, however, has a radically different view. Science and religion are locked into a battle to the death.²¹ Only one can emerge victorious—and it must be science. The Dawkinsian view of reality is a mirror image of that found in some of the more exotic sections of American fundamentalism. The late Henry Morris, a noted creationist, saw the world as absolutely polarized into two factions. The saints were the religious faithful (which Morris defined in his own rather exclusive way). The evil empire consisted of atheist scientists. Morris offered an apocalyptic vision of this battle, seeing it as being cosmic in its significance. It was all about truth versus falsehood, good versus evil. And in the end, truth and good would triumph! Dawkins simply replicates this fundamentalist scenario, while inverting its frame of reference.

It is a hopelessly muddled reading of things. It ultimately depends on an obsolete and now abandoned historical reading of the relationship of science and religion. Once upon a time, back in the second half of the nineteenth century, it was certainly possible to believe that science and religion were permanently at war. Yet, as one of America's leading historians of science recently remarked to me, this is now seen as a hopelessly outmoded historical stereotype that scholarship has totally discredited. It lingers on only in

the backwaters of intellectual life, where the light of scholarship has yet to penetrate. The relationship between science and religion is complex and variegated—but it could never conceivably be represented as a state of total war.

Yet Dawkins is so unswervingly committed to this obsolete warfare model that he is led to make some very unwise and indefensible judgments. The most ridiculous of these is that scientists who believe in or contribute to a positive working relationship between science and religion represent the "Neville Chamberlain" school.²² This comparison is intellectual nonsense, not to mention personally offensive. For those readers who do not recognize the allusion, Dawkins is here referring to the policy of appeasement that the British prime minister Neville Chamberlain adopted toward Adolf Hitler in 1938, in the hope of avoiding total war in Europe. The distasteful analogy seems to imply that scientists who affirm the importance of religion are to be stigmatized as "appeasers," and that religious people are to be compared, equally offensively, to Hitler. Dawkins's imagery here seems to express some alarmingly prejudiced and poorly informed judgments about the relationship of science and religion.

So who does Dawkins have in mind? Incredibly, he singles out Michael Ruse—a distinguished atheist philosopher who has done much to clarify the philosophical roots and consequences of Darwinism, and to challenge religious fundamentalism.²³ Why? Dawkins's argument is so muddled here that it is difficult to identify the point at issue. Was it that Ruse dared to criticize Dawkins, an act of *lèse majesté*? Or was it that he even more daringly suggested that science and religion might learn from each other—

which some fanatics, I fear, would regard as an act of treason?

Dawkins here cites approvingly the Chicago geneticist Jerry Coyne, who declared that “the *real* war is between rationalism and superstition. Science is but one form of rationalism, while religion is the most common form of superstition.”²⁴ And so the world is divided into two camps—rationalism and superstition. Just as religions distinguish the saved from the damned, Dawkins shows the same absolute dichotomous mode of thought. It is either black or white; there are no shades of gray. Poor Michael Ruse. Having attacked one bunch of fundamentalists, he finds himself ostracised by another—declared to be intellectually unclean by his erstwhile colleagues.

Dawkins is clearly entrenched in his own peculiar version of a fundamentalist dualism. Yet many will feel that a reality check is appropriate, if not long overdue, here. Dawkins seems to view things from within a highly polarized worldview that is no less apocalyptic and warped than that of the religious fundamentalisms he wishes to eradicate. Is the solution to religious fundamentalism *really* for atheists to replicate its vices? We are offered an atheist fundamentalism that is as deeply flawed and skewed as its religious counterparts.²⁵ There are better ways to deal with religious fundamentalism. Dawkins is part of the problem here, not its solution.

A CLASH OF FUNDAMENTALISMS

One of the greatest disservices that Dawkins has done to the natural sciences is to portray them as relentlessly and inexorably atheistic. They are nothing of the sort; yet Dawkins’s crusading vigor

has led to the growth of this alienating perception in many parts of North American conservative Protestantism. Is there any better way to ensure that the sciences are seen in a negative light within this community, as interest in and commitment to religion resurges throughout much of the world? Little wonder that many Darwinians have expressed alarm at this attempt to brand the outlook as atheist. They are being discredited in the eyes of a vast constituency—needlessly and recklessly.

I have already criticized the intelligent design movement, a conservative Christian anti-evolutionary movement whose ideas are also lambasted in *The God Delusion*.²⁶ Yet ironically, this movement now regards Dawkins as one of its greatest assets. Why? Because his hysterical and dogmatic insistence on the atheist implications of Darwinism is alienating many potential supporters of the theory of evolution. William Dembski, the intellectual architect of this movement, constantly thanks his intelligent Designer for Dawkins.²⁷ As he put it recently in a somewhat sarcastic e-mail to Dawkins: “I regularly tell my colleagues that you and your work are one of God’s greatest gifts to the intelligent-design movement. So please, keep at it!” I suspect that he’s delighted by *The God Delusion*.²⁸

Small wonder that Ruse (who describes himself as a “hard-line Darwinian”) commented in a leaked e-mail to Daniel Dennett that he (Dennett) and Dawkins were “absolute disasters in the fight against intelligent design.”

What we need is not knee-jerk atheism but serious grappling with the issues—neither of you are willing to study Christianity seriously and to engage with the ideas—it is just plain silly and grotesquely immoral to claim that Christianity is

simply a force for evil, as Richard [Dawkins] claims—more than this, we are in a fight, and we need to make allies in the fight, not simply alienate everyone of good will.²⁹

Aha! Now we understand why Dawkins has cast Ruse into outer darkness. Don't worry, Michael—you're in good company.

But before his expulsion from Dawkins's Garden of Eden, Ruse had made another telling point. On October 22, 1996, Pope John Paul II issued a statement to the Pontifical Academy of Sciences offering support for the general notion of biological evolution, while criticizing certain materialist interpretations of the idea.³⁰ (Roman Catholicism, by the way, has never had the difficulties with the notion of evolution that are characteristic of conservative Protestantism.) The pope's statement was welcomed by many scientists. But not Richard Dawkins. Here is Ruse's comment on what happened next: "When John Paul II wrote a letter endorsing Darwinism, Richard Dawkins' response was simply that the pope was a hypocrite, that he could not be genuine about science and that Dawkins himself simply preferred an honest fundamentalist."³¹

Ruse's comment immediately helps us understand what is going on. If Dawkins's agenda was to encourage Christians to accept biological evolution, this statement would have been welcomed. But it's not. Dawkins is totally unable to accept that the pope—or presumably any Christian—could accept evolution. So he is not telling the truth, is he? He can't be. The pope, according to Dawkins, is a superstitious person who is just *pretending* to be rational. It's hard not to believe that science—or rather, a highly contentious and unrepresentative account of science—is here being abused as a weapon to destroy religion.

One of the most melancholy aspects of *The God Delusion* is how its author appears to have made the transition from a scientist with a passionate concern for truth to a crude antireligious propagandist who shows a disregard for evidence. This was evident in the TV series *The Root of All Evil?* which served as a pilot for *The God Delusion*. Here, Dawkins sought out religious extremists who advocated violence in the name of religion, or who were aggressively antiscientific in their outlook. No representative figures were included or considered. Dawkins's conclusion? Religion leads to violence and is antiscience.

Unsurprisingly, the series was panned by its critics, who saw it as intellectually risible. As one senior atheist scientific colleague at Oxford said to me afterward, "Don't judge the rest of us by this pseudointellectual drivel." Yet *The God Delusion* simply continues this flagrantly biased approach to evidence, mocking and excoriating alternatives, refusing to take them seriously. Yes, there are religious people who are deeply hostile to science. And that number will, if anything, simply increase due to Dawkins's polemical use of science in his epic struggle against religion. Perhaps it's time that the scientific community as a whole protested against the abuse of their ideas in the service of such an atheist fundamentalism.