

THE MAGICIAN'S TWIN

C. S. LEWIS ON SCIENCE,
SCIENTISM, AND SOCIETY

JOHN G. WEST, EDITOR

Description

Beloved for his Narnian tales and his books of Christian apologetics, best-selling author C.S. Lewis also was a prophetic critic of the growing power of scientism, the misguided effort to apply science to areas outside its proper bounds. In this wide-ranging book of essays, contemporary writers probe Lewis's warnings about the dehumanizing impact of scientism on ethics, politics, faith, reason, and science itself. Issues explored include Lewis's views on bioethics, eugenics, evolution, intelligent design, and what he called "scientocracy."

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1

THE MAGICIAN'S TWIN

John G. West

IN HIS CLASSIC BOOK *THE ABOLITION OF MAN* (1944), C. S. LEWIS wrote that “[t]he serious magical endeavour and the serious scientific endeavour are twins.”¹

At first reading, Lewis’s observation might seem rather strange. After all, science is supposed to be the realm of the rational, the skeptical, and the objective.

Magic, on the other hand, is supposed to be the domain of the dogmatic, the credulous, and the superstitious. Think of a witch doctor holding sway over a tribe of cannibals deep in a South Sea jungle.

As strange as Lewis’s observation might first appear, the comparison between science and magic runs throughout a number of his works. The sinister Uncle Andrew in Lewis’s Narnian tale *The Magician’s Nephew* is both a magician *and* a scientist; and the bureaucratic conspirators at the National Institute of Co-ordinated Experiments (N.I.C.E.) in Lewis’s adult novel *That Hideous Strength* crave the powers of both science and the magician Merlin in their plot to reengineer society.²

For all of the obvious differences between science and magic, Lewis is correctly understood that there are at least three important ways in which they are alarmingly similar. More than that, he recognized that these similarities pose a growing threat to the future of civilization as we know it.

1. SCIENCE AS RELIGION

THE FIRST WAY SCIENCE AND magic are similar according to Lewis is their ability to function as an alternative religion. A magical view of reality can inspire wonder, mystery, and awe. It can speak to our yearning

for something beyond the daily activities of ordinary life. Even in our technocratic age, the allure of magic in providing meaning to life can be seen in the continuing popularity of *Star Wars*, *The Lord of the Rings*, the Narnian chronicles, and the adventures of Harry Potter. While magical stories tantalize religious and irreligious people alike, for those without conventional religious attachments, they can provide a substitute spiritual reality.

Modern science can offer a similarly powerful alternative to traditional religion. In Lewis's lifetime, the promoter par excellence of this sort of science as religion was popular writer H. G. Wells. Wells and others fashioned Darwin's theory of evolution into a cosmic creation story Lewis variously called "The Scientific Outlook," "Evolutionism," "the myth of evolutionism," and even "Wellsianity."³ While some contemporary evolutionists contend that people doubt Darwinian theory because it does not tell a good story,⁴ Lewis begged to differ. In his view, cosmic evolutionism of the sort propounded by Wells was a dramatic narrative brimful of heroism, pathos, and tragedy.

In a bleak and uncaring universe, the hero (life) magically appears by chance on an insignificant planet against astronomical odds. "Everything seems to be against the infant hero of our drama," commented Lewis, "... just as everything seems against the youngest son or ill-used stepdaughter at the opening of a fairy tale." No matter, "life somehow wins through. With infinite suffering, against all but insuperable obstacles, it spreads, it breeds, it complicates itself, from the amoeba up to the plant, up to the reptile, up to the mammal."⁵ In the words of H. G. Wells, "[a]ge by age through gulfs of time at which imagination reels, life has been growing from a mere stirring in the intertidal slime towards freedom, power and consciousness."⁶

Through the epic struggle of survival of the fittest, Man himself finally claws his way to the top of the animal kingdom. Eventually he finds Godhood within his grasp if only he will seize the moment. To quote Wells again: "Man is still only adolescent... we are hardly in the earliest dawn of human greatness... What man has done, the little triumphs of

his present state, and all this history we have told, form but the prelude to the things that man has got to do.”⁷

But then, after Man's moment of triumph, tragedy strikes. The sun gradually cools, and life on Earth is obliterated. In Wells's *The Time Machine*, the protagonist reports his vision of the dying Earth millions of years hence: “The darkness grew apace; a cold wind began to blow... From the edge of the sea came a ripple and whisper. Beyond these lifeless sounds the world was silent... All the sounds of man, the bleating of sheep, the cries of birds, the hum of insects, the stir that makes the background of our lives—all that was over.”⁸

Lewis explained that he “grew up believing in this Myth and I have felt—I still feel—its almost perfect grandeur. Let no one say we are an unimaginative age: neither the Greeks nor the Norsemen ever invented a better story.” Even now, Lewis added, “in certain moods, I could almost find it in my heart to wish that it was not mythical, but true.”⁹

Lewis did not claim that modern science necessitated the kind of blind cosmic evolutionism promoted by H. G. Wells and company. Indeed, in his book *Miracles* he argued that the birth of modern science and its belief in the regularity of nature depended on the Judeo-Christian view of God as Creator: “Men became scientific because they expected Law in Nature, and they expected Law in Nature because they believed in a Legislator.”¹⁰ Nevertheless, Lewis thought that biology after Darwin provided potent fuel for turning science into a secular religion.

One does not need to look very far to see science being used in the same way today. In 2012 thousands of atheists and agnostics converged on Washington, D.C. for what they called a “Reason Rally.”¹¹ The rally had all the trappings of an evangelistic crusade, but instead of being preached at by a Billy Graham or a Billy Sunday, attendees got to hear Darwinian biologist Richard Dawkins and *Scientific American* columnist Michael Shermer. Former Oxford University professor Dawkins is known for claiming that “Darwin made it possible to be an intellectually fulfilled atheist,” while Shermer once wrote an article “Science is My

Savior,” which explained how science helped free him from “the stultifying dogma of a 2,000-year-old religion.”¹²

The central role Darwinian evolution continues to play for the science-as-religion crowd is readily apparent in the countless “Darwin Day” celebrations held around the globe each year on Feb. 12, Charles Darwin’s birthday. Darwin Day is promoted by a group calling itself the International Darwin Day Foundation. Managed by the American Humanist Association, the group’s mission is “to encourage the celebration of Science and Humanity” because “[s]cience is our most reliable knowledge system.”¹³

According to Amanda Chesworth, one of the co-founders of the Darwin Day movement, the purpose of Darwin Day is to “recognize and pay homage to the indomitable minds and hearts of the people who have helped build the secular cathedrals of verifiable knowledge.” Chesworth’s word choice is particularly astute: by doing science, scientists in her view are building “secular *cathedrals*.”¹⁴ The iconography of religion is unmistakable. In the words of one Darwin Day enthusiast who posted an approving comment on the official Darwin Day site: “To me, Charles Darwin is more of a God than the one armies had nailed to a cross.”¹⁵

Perhaps the most tireless proponents of cosmic evolutionism today are the husband-and-wife team of Michael Dowd and Connie Barlow, who bill themselves as “America’s Evolutionary Evangelists.”¹⁶ A former evangelical Christian turned Unitarian minister turned religious “naturalist,” Dowd is author of *Thank God for Evolution!*, the subtitle of which is “How the Marriage of Science and Religion Will Transform Your Life and Our World.”¹⁷ Dowd calls his brand of cosmic evolutionism the “Great Story,” which is defined on the Great Story website as “humanity’s sacred narrative of an evolving Universe of emergent complexity and breathtaking creativity—a story that offers each of us the opportunity to find meaning and purpose in our lives and our time in history.”¹⁸ The Great Story comes along with its own rituals, parables, hymns, sacred sites, “evolutionary revival” meetings, Sunday School curricula, and even

“cosmic rosaries,” necklaces of sacred beads to teach children the fundamental doctrines of cosmic evolutionism.¹⁹

Dowd has attracted widespread support from Nobel laureates, atheistic evolutionists, and theistic evolutionists. For all of his outreach to the faith community, however, Dowd dismisses the reality of God just as much as atheist biologist Richard Dawkins. In an article written for *Skeptical* magazine, Dowd acknowledged his view that “God” is simply a myth: “God is not a person; God is a personification of one or more deeply significant dimensions of reality.”²⁰ Just as people in the ancient world personified the oceans as the god Poseidon or the sun as the god Sol, contemporary people personify natural forces and call them “God.”²¹ Hence, Dowd’s Great Story is ultimately a drama of the triumph of blind and undirected matter in a universe where a Creator does not actually exist. This becomes explicit in the description of the Great Story provided by philosopher Loyal Rue, cited approvingly on the Great Story website:

In the course of epic events, matter was distilled out of radiant energy, segregated into galaxies, collapsed into stars, fused into atoms, swirled into planets, spliced into molecules, captured into cells, mutated into species, compromised into thought, and cajoled into cultures. **All of this (and much more)** is what **matter** has done as systems upon systems of organization have emerged over thirteen billion years of creative natural history.²²

“All of this... is what *matter* has done,” *not* God. Just like the narrative promoted by H. G. Wells and the scientific materialists at the beginning of the twentieth century, the cosmic evolutionism offered by Dowd and his followers in the twenty-first century is ultimately reducible to scientific materialism. The bottom line of their secular creation story is neatly encapsulated by Phillip Johnson: “In the beginning were the particles. And the particles somehow became complex living stuff. And the stuff imagined God, but then discovered evolution.”²³

Lewis would not have been surprised by current efforts to co-opt traditional religion in the name of science, or even to find a lapsed cler-

gyman leading the charge. In Lewis's novel *That Hideous Strength*, the sometime clergyman Straik joins hand-in-hand with the avowed scientific materialists in the name of promoting a new this-wordly religion. As the impassioned Rev. Straik declares to Mark Studdock: "The Kingdom is going to arrive: in this world: in this country. The powers of science are an instrument. An irresistible instrument."²⁴

2. SCIENCE AS CREDULITY

THE SECOND WAY SCIENCE AND magic are similar according to Lewis is their encouragement of a stunning *lack* of skepticism. This may seem counterintuitive, since science in the popular imagination is supposed to be based on logic and evidence, while magic is supposed to be based on a superstitious acceptance of claims made in the name of the supernatural. In the words of Richard Dawkins, "[s]cience is based upon verifiable evidence," while "[r]eligious faith" (which Dawkins views as a kind of magic) "not only lacks evidence, its independence from evidence is its pride and joy."²⁵ Yet as Lewis well knew, scientific thinking no less than magical thinking can spawn a kind of credulity that accepts every kind of explanation no matter how poorly grounded in the facts. In the age of magic, the claims of the witch-doctor were accepted without contradiction. In the age of science, almost anything can be taken seriously if only it is defended in the name of science.

Lewis explained that one of the things he learned by giving talks at Royal Air Force camps during World War II was that the "real religion" of many ordinary Englishmen was a completely uncritical "faith in 'science.'"²⁶ Indeed, he was struck by how many of the men in his audiences "did not really believe that we have any reliable knowledge of historic man. But this was often curiously combined with a conviction that we knew a great deal about Pre-Historic Man: doubtless because Pre-Historic Man is labelled 'Science' (which is reliable) whereas Napoleon or Julius Caesar is labelled as 'History' (which is not)."²⁷

But it was not just the "English Proletariat" who exhibited a credulous acceptance of claims made in the name of science according to Lew-

is. In *That Hideous Strength*, when the young sociologist Mark Studdock expresses doubts that N.I.C.E. can effectively propagandize “educated people,” the head of N.I.C.E.’s police force, Fairy Hardcastle, responds tartly: “Why you fool, it’s the educated reader who *can* be gulled. All our difficulty comes with the others. When did you meet a workman who believes the papers? He takes it for granted that they’re all propaganda and skips the leading articles... We have to recondition him. But the educated public, the people who read the highbrow weeklies, don’t need reconditioning. They’re all right already. They’ll believe anything.”²⁸

For Lewis, two leading examples of scientism-fueled gullibility of the intellectual classes during his own day were Freudianism and evolutionism.

Lewis’s interest in Freud dated back to his days as a college student. In his *Surprised by Joy* (1955), he recalled how as an undergraduate “the new Psychology was at that time sweeping through us all. We did not swallow it whole... but we were all influenced.”²⁹ In 1922 he recorded in his diary a discussion with friends saying that “[w]e talked a little of psychoanalysis, condemning Freud.”³⁰ Although skeptical of Freud, Lewis remained intrigued, for a just few weeks later he notes that he was reading Freud’s *Introductory Letters on Psychoanalysis*.³¹

A decade later, and shortly after Lewis had become a Christian, Freud made a cameo appearance in *The Pilgrim’s Regress* (1933), Lewis’s autobiographical allegory of his intellectual and spiritual journey toward Christianity.³² In Lewis’s story, the main character John ends up being arrested and flung into a dungeon by a stand-in for Freud named Sigismund Enlightenment (Sigismund was Sigmund Freud’s full first name).³³ The dungeon is overseen by a Giant known as the Spirit of the Age who makes people transparent just by looking at them. As a result, wherever John turns, he sees through his fellow prisoners into their insides. Looking at a woman, he sees through her skull and “into the passages of the nose, and the larynx, and the saliva moving in the glands and the blood in the veins: and lower down the lungs panting like sponges, and the liver, and the intestines like a coil of snakes.”³⁴ Looking at an old

man, John sees the man's cancer growing inside him. And when John turns his head toward himself, he is horrified to observe the inner workings of his own body. After many days of such torment, John cries out in despair: "I am mad. I am dead. I am in hell for ever."³⁵

The dungeon is the hell of materialistic reductionism, the attempt to reduce every human trait to an irrational basis, all in the name of modern science. Lewis saw Freud as one of the trailblazers of the reductionist approach. By attempting to uncover the "real" causes of people's religious and cultural beliefs in their subconscious and irrational urges and complexes, Freud eroded not only their humanity, but the authority of rational thought itself.

In the 1940s, Lewis offered an explicit critique of Freudianism in a lecture to the Socratic Club at Oxford. Noting that people used to believe that "if a thing seemed obviously true to a hundred men, then it was probably true in fact," Lewis observed that "[n]owadays the Freudian will tell you to go and analyze the hundred: you will find that they all think Elizabeth [I] a great queen because they all have a mother-complex. Their thoughts are psychologically tainted at the source."³⁶

"Now this is obviously great fun," commented Lewis, "but it has not always been noticed that there is a bill to pay for it." If all beliefs are thus tainted at the source and so should be disregarded, then what about Freud's own system of belief? The Freudians "are in the same boat with all the rest of us... They have sawn off the branch they were sitting on."³⁷ In the name of a scientific study of psychology, the Freudians had undercut the confidence in reason needed for science itself to continue to flourish.³⁸

Evolutionism was another prime example of credulous thinking fostered by scientism according to Lewis. As chapter 6 will explain, Lewis did not object in principle to an evolutionary process of common descent, although he was skeptical in practice of certain claims about common descent. But Lewis had no patience for the broader evolutionary idea that matter magically turned itself into complex and conscious living things through a blind and undirected process. Lewis lamented that

"[t]he modern mind accepts as a formula for the universe in general the principle 'Almost nothing may be expected to turn into almost everything' without noticing that the parts of the universe under our direct observation tell a quite different story."³⁹ Fueled by "Darwinianism," this sort of credulity drew on "a number of false analogies" according to Lewis: "the oak coming from the acorn, the man from the spermatozoon, the modern steamship from the primitive coracle. The supplementary truth that every acorn was dropped by an oak, every spermatozoon derived from a man, and the first boat by something so much more complex than itself as a man of genius, is simply ignored."⁴⁰

Lewis also thought that evolutionism, like Freudianism, promoted a "fatal self-contradiction" regarding the human mind.⁴¹ According to the Darwinian view, "reason is simply the unforeseen and unintended by-product of a mindless process at one stage of its endless and aimless becoming." Lewis pointed out the fundamental difficulty with this claim: "If my own mind is a product of the irrational—if what seem my clearest reasonings are only the way in which a creature conditioned as I am is bound to feel—how shall I trust my mind when it tells me about Evolution?" He added that "[t]he fact that some people of scientific education cannot by any effort be taught to see the difficulty, confirms one's suspicion that we here touch a radical disease in their whole style of thought."⁴²

Although science is supposed to be based on logic, evidence, and critical inquiry, Lewis understood that it could be easily misused to promote uncritical dogmatism, and he lived during an era in which this kind of misuse of science was rampant. Consider the burgeoning "science" of eugenics, the effort to breed better human beings by applying Darwinian principles of selection through imprisonment, forced sterilization, immigration restrictions, and other methods. Generally regarded today as pseudoscience, eugenics originated with noted British scientist Francis Galton (Charles Darwin's cousin), and it found widespread popularity in Lewis's day among elites in England, the United States, and Germany. Eugenics was the consensus view of the scientific community during

much of Lewis's lifetime, and those who opposed it were derided as anti-science reactionaries or religious zealots standing in the way of progress. In America, its champions included members of the National Academy of Sciences and evolutionary biologists at the nation's top research universities.⁴³ In Britain, noted eugenicists included evolutionary biologist Julian Huxley, grandson of "Darwin's Bulldog" Thomas Henry Huxley. Julian Huxley complained that in civilized societies "the elimination of defect by natural selection is largely... rendered inoperative by medicine, charity, and the social services." As a result, "[h]umanity will gradually destroy itself from within, will decay in its very core and essence, if this slow but relentless process is not checked."⁴⁴

The United States holds the dubious honor of enacting the world's first compulsory eugenics sterilization law, but it was Nazi Germany that pursued eugenics with special rigor in the 1930s and 40s. Not content with merely sterilizing hundreds of thousands of the so-called "unfit," Nazi doctors eventually started killing handicapped persons en masse in what turned out to be a practice run for Hitler's extermination campaign against the Jews.⁴⁵

The horrors of Nazi eugenics effectively killed off enthusiasm for eugenics in the mainstream scientific community after World War II. But there were other cases where scientific elites showed a similarly breathtaking lack of skepticism during this period. In the field of human evolution, much of the scientific community was hoodwinked for two generations into accepting the infamous Piltdown skull as a genuine "missing link" between humans and their ape-like ancestors before the fossil was definitively exposed as a forgery in 1953 (much to Lewis's private amusement).⁴⁶ In the field of medicine, the lobotomy was embraced as a miracle cure by large parts of the medical community well into the 1950s, and the scientist who pioneered the operation in human beings even won a Nobel Prize for his efforts in 1949. Only after tens of thousands of individuals had been lobotomized (including children) did healthy skepticism begin to prevail.⁴⁷ And in the field of human sexuality, Darwinian zoologist Alfred Kinsey's studies on human sex practices were accepted

uncritically by fellow researchers and social scientists for decades despite the fact that his wildly unrepresentative samples and coercive interview techniques made his research little more than junk science.⁴⁸

If scientists themselves could demonstrate such stunning bouts of credulity about scientific claims, members of the general public were even more susceptible to the disease according to Lewis. In an age of science and technology, Lewis knew that ordinary citizens must increasingly look to scientific experts for answers, and that would likely lead people to defer more and more to the scientists, letting the scientists do their thinking for them and neglecting their own responsibilities for critical thought in the process.

Lewis knew firsthand the dangers of simply deferring to scientific claims, recalling that his own atheistic “rationalism was inevitably based on what I believed to be the findings of the sciences, and those findings, not being a scientist, I had to take on trust—in fact, on authority.”⁴⁹ Lewis understood that the ironic result of a society based on science might be greater credulity, not less, as more people simply accepted scientific claims on the basis of authority. This was already happening in his view. Near the end of his life, Lewis observed that “the ease with which a scientific theory assumes the dignity and rigidity of fact varies inversely with the individual’s scientific education,” which is why when interacting “with wholly uneducated audiences” he “sometimes found matter which real scientists would regard as highly speculative more firmly believed than many things within our real knowledge.”⁵⁰ In Lewis’s view, the increasing acquiescence of non-scientists to those with scientific and technical expertise gave rise to by far the most dangerous similarity between science and magic, one that threatened the future of Western civilization itself.

3. SCIENCE AS POWER

THE THIRD AND MOST SIGNIFICANT way science is similar to magic according to Lewis is its quest for power. Magic wasn’t just about understanding the world; it was about controlling it. The great wizard or

sorcerer sought power over nature. Similarly, science from the beginning was not just the effort to understand nature, but the effort to control it. “For magic and applied science alike the problem is how to subdue reality to the wishes of men,” wrote Lewis. In pursuit of that objective, both magicians and scientists “are ready to do things hitherto regarded as disgusting and impious—such as digging up and mutilating the dead.”⁵¹

Of course, there is a critically important difference between science and magic: Science works, while magic is relegated today to the pages of the fairy tale. Science cures diseases. Science increases food production. Science puts men on the moon and ordinary people in jet planes. Science fills our homes with computers, iPhones, and microwave ovens. Herein lies the great temptation of modern science to modern man. The world as we know it faces apparently insurmountable evils from hunger to disease to crime to war to ecological devastation. Science offers the hope of earthly salvation through the limitless creativity of human ingenuity—or so the prophets of scientism have claimed over the past century, including H. G. Wells and evolutionary biologists J. B. S. Haldane and Julian Huxley during C. S. Lewis’s own day. Haldane viewed science as “man’s gradual conquest, first of space and time, then of matter as such, then of his own body and those of other living beings, and finally the subjugation of the dark and evil elements in his own soul,”⁵² and he urged his fellow scientists to no longer be “passively involved in the torrent of contemporary history, but actively engaged in changing society and shaping the world’s future.”⁵³

C. S. Lewis was not persuaded. In his view, the scientific utopians failed to take into account the moral vacuum at the heart of contemporary science. Lewis stressed that he was not anti-science; but he still worried that modern science was ill-founded from the start: “It might be going too far to say that the modern scientific movement was tainted from its birth: but I think it would be true to say that it was born in an unhealthy neighbourhood and at an inauspicious hour.”⁵⁴ Lewis noted that modern science attempts to conquer nature by demystifying its parts and reducing them to material formulas by which they can be controlled.

The results of this materialistic reductionism are often laudable (e.g., antibiotics, personal computers, and the invention of airplanes). Nevertheless, when the conquest of nature is turned on man himself, a problem arises: “[A]s soon as we take the final step of reducing our own species to the level of mere Nature, the whole process is stultified, for this time the being who stood to gain and the being who has been sacrificed are one and the same.”⁵⁵ By treating human beings as the products of blind non-rational forces, scientific reductionism eliminates man as a rational moral agent. In Lewis’s words, “[m]an’s final conquest has proved to be the abolition of Man.”⁵⁶

Lewis worried that scientism’s reductionist view of the human person would open the door wide to the scientific manipulation of human beings. “[I]f man chooses to treat himself as raw material,” he wrote, “raw material he will be: not raw material to be manipulated, as he fondly imagined, by himself, but by mere appetite, that is, mere Nature, in the person of his dehumanized Conditioners.”⁵⁷ Lewis thought there would be no effective limits on human manipulation in the scientific age because scientism undermined the authority of the very ethical principles needed to justify such limits. According to scientism, old cultural rules (such as “Man has no right to play God” or “punishment should be proportionate to the crime”) were simply the byproducts of a blind evolutionary process and could be disregarded or superseded as needed. Thus, any restrictions on the application of science to human affairs ultimately would be left to the personal whims of the elites.

Lewis’s concern about the powerful impact of scientism on society was detectible already in *Dymer* (1926) and *The Pilgrim’s Regress* (1933), but by the late 1930s and early 1940s his alarm was on full display in his science fiction trilogy, which he continued to publish as the world plunged into another world war. It is significant that Lewis spent World War II writing not about the dangers of Nazism or communism (even though he detested both), but about the dangers of scientism and its effort to abolish man.⁵⁸ Scientism was a greater threat in Lewis’s view than fascism or communism because it infected representative democra-

cies like Britain no less than totalitarian societies: "The process which, if not checked, will abolish Man, goes on apace among Communists and Democrats no less than among Fascists." Lewis acknowledged that "[t]he methods may (at first) differ in brutality" between scientism and totalitarianism, but he went on to make a shocking claim: "[M]any a mild-eyed scientist in pince-nez, many a popular dramatist, many an amateur philosopher in our midst, means in the long run just the same as the Nazi rulers of Germany."⁵⁹

That message lies at the heart of Lewis's novel *That Hideous Strength*, written in 1942 and 1943, but not published until 1945.⁶⁰ As previously mentioned, *That Hideous Strength* tells the story of a sinister conspiracy to turn England into a scientific utopia. The vehicle of transformation is to be a lavishly funded new government bureaucracy with the deceptively innocuous name of the National Institute for Co-ordinated Experiments, or N.I.C.E. for short.⁶¹ Of course, there is nothing nice about N.I.C.E. Its totalitarian goal is to meld the methods of modern science with the coercive powers of government in order "to take control of our own destiny" and "make man a really efficient animal." The Institute's all-encompassing agenda reads like a wish list drawn up by the era's leading scientific utopians: "sterilization of the unfit, liquidation of backward races (we don't want any dead weights), selective breeding," and "real education," which means "biochemical conditioning... and direct manipulation of the brain."⁶² N.I.C.E.'s agenda also includes scientific experimentation on both animals and criminals. The animals would be "cut up like paper on the mere chance of some interesting discovery," while the criminals would no longer be punished but cured, even if their "remedial treatment" must continue indefinitely.⁶³

Lewis lampoons the scientific bureaucrats running N.I.C.E., and he relishes pointing out just how narrow-minded and parochial they are for all of their supposed sophistication. This comes out clearly when Mark Studdock and a fellow researcher from the sociology branch of N.I.C.E. (Cosser) visit a picturesque country village in order to write a report advocating its demolition. Mark, who is not quite as far down the path of

scientism as Cosser, feels like he is “on a holiday” while visiting the village, enjoying the natural beauty of the sunny winter day, relaxing at a pub for a drink, and feeling the aesthetic attraction of historic English architecture. Cosser is impervious to such things, placing no value on anything outside his narrow field of sociological expertise. Instead of delighting in the beauty of nature, Cosser complains about the “[b]loody awful noise those birds make.”⁶⁴ Instead of enjoying a drink at the pub, he complains about the lack of ventilation and suggests that the alcohol could be “administered in a more hygienic way.” When Mark suggests that Cosser is missing the point of the pub as a gathering place for food and fellowship, Cosser replies “Don’t know, I’m sure... Nutrition isn’t my subject. You’d want to ask Stock about that.” When Mark mentions that the village has “its pleasant side” and that they need to make sure that whatever it is replaced with is something better in all areas, “not merely in efficiency,” Cosser again pleads that this is outside his area. “Oh, architecture and all that,” he replies. “Well, that’s hardly my line, you know. That’s more for someone like Wither. Have you nearly finished?”⁶⁵ A hyper-specialist, Cosser can’t see past his proverbial nose. Yet he is being given the power to decide whether to dispossess members of an entire village from their homes.⁶⁶

That Hideous Strength resonated with the public, and it quickly became Lewis’s most popular adult novel, despite negative reviews from critics, including one from J. B. S. Haldane, who thought the novel was a blatant attack on science.⁶⁷ It is easy to understand why the public of the 1940s might have been receptive to the novel’s message. Two world wars and the rise of totalitarianism in Germany and Russia had dampened popular enthusiasm for the message of the scientific utopians. After all, it was hard to view science as savior when scientists were busy bringing forth poison gas, the V-2 rocket, and the atomic bomb—not to mention new methods of killing the handicapped in the name of eugenics in Germany. To many people, the new age ushered in by science looked more like a nightmare than a paradise.

After World War II, however, even the looming threat of nuclear annihilation did not prevent some from renewing their quest for societal salvation through science, and scientific utopianism began to revive. At the global level, Julian Huxley called for bringing about a better future by promoting “scientific world humanism, global in extent and evolutionary in background,”⁶⁸ while in America renewed optimism toward science was exemplified by icons of pop culture such as Walt Disney’s “Tomorrowland” in Disneyland, *The Jetsons* cartoon series, and the 1962 World’s Fair in Seattle, which celebrated the seemingly endless possibilities of the science-led world of “Century 21.”

For his part, Lewis continued to sound the alarm about the dangers of what he variously called “technocracy” or “scientocracy”—government in the name of science that is disconnected from the traditional limits of both morality and a free society.⁶⁹ Lewis’s most eloquent post-war statement on the subject came in the article “Willing Slaves of the Welfare State,” published in *The Observer* in 1958. In that essay, Lewis worried that we were seeing the rise of a “new oligarchy [that] must more and more base its claim to plan us on its claim to knowledge... This means they must increasingly rely on the advice of scientists, till in the end the politicians proper become merely the scientists’ puppets.”⁷⁰ Lewis believed that the world’s desperate ills of “hunger, sickness, and the dread of war” would make people all too willing to accept an “omnicompetent global technocracy,” even if it meant surrendering their freedoms. “Here is a witch-doctor who can save us from the sorcerers—a war-lord who can save us from the barbarians—a Church that can save us from Hell. Give them what they ask, give ourselves to them bound and blindfold, if only they will!”⁷¹

Lewis did not deny that scientific and technical knowledge might be needed to solve our current problems. But he challenged the claim that scientists had the right to rule merely because of their superior technical expertise. Scientific knowledge may be necessary for good public policy in certain areas, but Lewis knew that it was hardly sufficient. Political problems are preeminently moral problems, and scientists are ill-

equipped to function as moralists according to Lewis: "Let scientists tell us about sciences. But government involves questions about the good for man, and justice, and what things are worth having at what price; and on these a scientific training gives a man's opinion no added value."⁷²

Lewis's warnings about the threat of scientocracy could have come from the latest headlines. Since the 1990s there has been a dramatic increase in what some have called the "authoritarian tone" of science, exemplified by the growing use in science journalism during this period of phrases such as "science requires," "science dictates," and "science tells us we should."⁷³ The changes in journalism track with similar developments in politics and public policy. Whether the topic be embryonic stem cell research, climate change, health insurance mandates, the teaching of evolution, or any number of other topics, "science" is increasingly being used as a trump card in public debates to suppress dissent and curtail discussion. Regardless of the issue, experts assert that their public policy positions are dictated by "science," which means that anyone who disagrees with them is "anti-science."

The conflict over government funding for embryonic stem cell research is a perfect example. Oppose taxpayer funding for embryonic stem cell research, and you are guaranteed to be labeled "anti-science" as well as a religious fanatic. However, this storyline of enlightened scientists vs. intolerant fundamentalists opposed to research obscures the complexities of the actual debate. First, there are plenty of scientific (as opposed to ethical or religious) objections to the efficacy of embryonic stem cell research; these are conveniently ignored by framing the dispute as science vs. anti-science.⁷⁴ Second, raising ethical questions about certain kinds of scientific research makes one "anti-science" only if one accepts scientism's premise that science is the one valid form of knowledge in the public square and scientific research therefore should operate free from any outside restrictions whatever. According to this mindset, opposition to the infamous Tuskegee syphilis experiments or Nazi medical experimentation on Jews would make one "anti-science." But that is ridiculous. Practicing science does not require operating in a

moral vacuum, and raising ethical objections to some forms of scientific research does not make one “anti-science.”

A similar situation exists in the debate over climate change. Question any part of the climate change “consensus” (how much climate change is going on, how much humans contribute to it, or what should humans do about it), and one is instantly declared “anti-science” or even a threat to the future of the human race. The goal of this kind of rhetoric is not to win by persuading others, but by silencing them.

Along with the growing use of science as a trump card, we are seeing the revival of scientific justifications for eugenics under the banners of “Transhumanism” (see chapter 10) and “reprogenetics.” The latter term was coined by Princeton University biologist Lee Silver, who urges human beings to take control of their evolution and evolve themselves into a higher race of beings with god-like powers.⁷⁵ Although Silver is concerned that the supposed blessings of genetic engineering might not be equally distributed across the population,⁷⁶ he nonetheless urges us to seize the opportunity: “[H]uman beings... now have the power not only to control but to create new genes for themselves. Why not seize this power? Why not control what has been left to chance in the past?”⁷⁷ “Transhumanism” and “reprogenetics” may still sound like science fiction to many people, but eugenic abortions targeting children with genetic defects are already well under way. In 2012, physician Nancy Synderman, chief medical editor for NBC News, publicly defended eugenic abortions on national television squarely on the basis of science: “I am pro-science, so I believe that this is a great way to prevent diseases.”⁷⁸ Of course, if it is “pro-science” to support eradicating babies with genetic flaws, it must be “anti-science” to oppose it.

For the moment, the new eugenics is focused more on encouraging individuals to willingly breed a better race than on imposing top-down measures, but the use of science as a justification for coercion is on the upswing as well:

- ✦ In the name of saving the planet from global warming, British scientist James Lovelock has called for the suspension of democracy: “Even the best democracies agree that when a major war approaches, democracy must be put on hold for the time being. I have a feeling that climate change may be an issue as severe as a war. It may be necessary to put democracy on hold for a while.”⁷⁹
- ✦ In the name of promoting biodiversity, evolutionary zoologist Eric Pianka at the University of Texas urges the reduction of the Earth’s human population by up to 90% and calls on the government to confiscate all the earnings of any couple who have more than two children. “You should have to pay more when you have your first kid—you pay more taxes,” he insists. “When you have your second kid you pay a lot more taxes, and when you have your third kid you don’t get anything back, they take it all.”⁸⁰
- ✦ In order to achieve the admittedly laudable goal of ending obesity, Harvard evolutionary biologist Daniel Lieberman advocates coercive measures by the government to control our diets. Lieberman argues that coercion is necessary because evolutionary biology shows us that we cannot control our sugar intake on our own power. “We have evolved to need coercion.”⁸¹
- ✦ When the Obama administration mandated that many private religious employers include contraceptives and even certain kinds of abortion drugs as part of their health care plans, the abrogation of religious liberty rights was justified in the name of science. “Scientists have abundant evidence that birth control has significant health benefits for women,” declared Secretary of Health and Human Services Kathleen Sebelius, defending the mandate.⁸²

Lewis's age of scientocracy has come upon us with a vengeance. Now we need to figure out what to do about it.

A REGENERATE SCIENCE?

LEWIS PROVIDES A HINT AS to what will be required to overcome scientism in his Narnian story *The Magician's Nephew*. Despite its title, there are actually two magicians in the story. The first, Uncle Andrew, embodies the longing to fuse science with magic. Although a magician, Uncle Andrew is also a scientist. He has a microscope, and he experiments on animals.⁸³ By pursuing power over nature without regard to ethics, Uncle Andrew sets in motion a train of events that ultimately brings a far greater magician, Queen Jadis, into both Earth and Narnia, which she thereupon threatens to enslave. Jadis previously destroyed her own world, Charn, after using her knowledge of "the Deplorable Word" to liquidate the entire population of the planet. The "Deplorable Word" was a secret formula "which, if spoken with the proper ceremonies, would destroy all living things except the one who spoke it." Previous rulers of Charn had pledged never to seek knowledge of the formula, but Jadis violated her oath, and when faced with defeat in battle, she decided to use the word.⁸⁴

Jadis is ultimately thwarted in her effort to take over new worlds, not by the actions of a fellow magician, but by the repentance of a young boy, Digory. Digory's unconstrained curiosity previously had brought Jadis out of a deep sleep. In order to undo the harm brought about by awakening Jadis, Digory promises Aslan, the Creator of Narnia, that he will journey to a garden on top of the mountains where he will pick a magical apple and bring it back to Aslan. When Digory arrives at the garden, he finds Jadis already there, having gorged herself on one of the apples despite a sign forbidding people to take apples for themselves. Jadis then urges Digory to disregard his promise to Aslan and take an apple for his dying mother, assuring him that the apple will heal her of her illness. Even when Jadis accuses Digory of being "heartless" for not being willing to save his own mother, Digory rebuffs the temptation to break faith

with Aslan. As a result of Digory's unwillingness to cooperate with her evil scheme, Jadis and her evil power are kept in check for many centuries.⁸⁵

The Magician's Nephew was written during the 1950s, the very period when Lewis's concerns about an "omnicompetent global technocracy" continued to grow. Jadis clearly represents the dangers of scientism. Her use of the "Deplorable Word" in her own world is perhaps a commentary on the age of nuclear weapons and our own efforts to develop ever more powerful weapons of mass destruction. After Aslan says that humans should take warning from the destruction of Charn, Digory's friend Polly says: "But we're not quite as bad as that world, are we, Aslan?" Aslan responds: "Not yet. But you are growing more like it. It is not certain that some wicked one of your race will not find out a secret as evil as the Deplorable Word and use it to destroy all living things." Aslan then tells Digory and Polly that "before you are an old man and an old woman, great nations in your world will be ruled by tyrants who care no more for joy and justice and mercy than the Empress Jadis. Let your world beware."⁸⁶ Since *The Magician's Nephew* is set in the early 1900s, Aslan is undoubtedly referring to the two world wars and subsequent "Cold War" that loomed on the horizon, all of which would be accompanied by horrifying new uses of science and technology to kill and manipulate humanity.⁸⁷

In *The Abolition of Man*, Lewis expressed his hope that a reformation of science could be brought about by scientists. But he made clear that the task was too important to be left to them alone: "[I]f the scientists themselves cannot arrest this process before it reaches the common Reason and kills that too, then someone else must arrest it."⁸⁸ In a free society, scientism requires the cooperation of scientists and non-scientists alike to prevail, and it requires the cooperation of both scientists and non-scientists to be defeated.

Like Digory, people today need the courage and independence of thought to stand up to the magicians of scientism. They need to be willing to ask questions, challenge assumptions, and defend a broader view

of rationality than that permitted by scientific materialism. Whether the issue is climate change, embryonic stem cell research, genetic engineering, evolution and intelligent design, or something else, it is not enough to simply acquiesce in the current "climate of opinion" in science or anything else, as Lewis himself well knew. "I take a very low view of 'climates of opinion,'" he commented, noting that "[i]n his own subject every man knows that all discoveries are made and all errors corrected by those who *ignore* the 'climate of opinion.'"⁸⁹

At the end of *The Abolition of Man*, Lewis issued a call for a "regenerate science" that would seek to understand human beings and other living things as they really are, not try to reduce them to automatons. "When it explained it would not explain away. When it spoke of the parts it would remember the whole. While studying the *It* it would not lose what Martin Buber calls the *Thou*-situation."⁹⁰

Lewis was not quite sure what he was asking for, and he was even less sure that it could come to pass. Yet in recent decades we have begun to see glimmers. New developments in biology, physics, and cognitive science are raising serious doubts about the most fundamental tenets of scientific materialism. In physics, our understanding of matter itself is becoming increasingly non-material.⁹¹ In biology, scientists are discovering how irreducibly complex biological systems and information encoded in DNA are pointing to the reality of intelligent design in nature.⁹² In cognitive science, efforts to reduce mind to the physical processes of the brain continue to fail, and new research is providing evidence that the mind is a non-reducible reality that must be accepted on its own terms.⁹³ What George Gilder has called "the materialist superstition" is being challenged as never before.⁹⁴

Nearly 50 years after C. S. Lewis's death, we are facing the possibility that science can become something more than the magician's twin. Even in the face of surging scientism in the public arena, an opportunity has opened to challenge scientism on the basis of science itself, fulfilling Lewis's own desire that "from Science herself the cure might come."⁹⁵

Let us hope we find the clarity and courage to make the most of the opportunity.

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6

DARWIN IN THE DOCK

C. S. LEWIS'S CRITIQUE OF EVOLUTION AND EVOLUTIONISM

John G. West

IN THE SULTRY SUMMER OF 1925, A BATTLE ROYAL RAGED IN DAYTON, Tennessee as political titans Clarence Darrow and William Jennings Bryan clashed in the trial of high school teacher John T. Scopes, an event immortalized—albeit inaccurately—in the play and film *Inherit the Wind*.¹ The Scopes trial cast a long shadow. Even today it continues to be used to caricature anyone skeptical of Darwin's theory of evolution as an unsophisticated dunce.

Few people would ever accuse C. S. Lewis of being either unsophisticated or a dunce. Yet during the summer of the Scopes trial in America, a twenty-something C. S. Lewis in England was expressing his own doubts about Darwin. A veteran of the front lines of World War I, Lewis had just been elected a Fellow of Magdalen College at Oxford. Previously a tutor in philosophy, his new position was in English literature.²

A few weeks after the Scopes trial concluded, Lewis wrote his father about his change in academic fields. He commented that although he was glad of the change, he was grateful for “something of value” that he learned from philosophy: “It will be a comfort to me all my life to know that the scientist and the materialist have not the last word: that Darwin and Spencer undermining ancestral beliefs stand themselves on a foundation of sand; of gigantic assumptions and irreconcilable contra-

dictions an inch below the surface.”³ Still an atheist, Lewis already had gnawing doubts about Darwinism.

Lewis’s early skepticism of Darwinism makes it all the more astonishing that he has been honored as a veritable patron saint in recent years by some contemporary proponents of theistic evolution. In the best-selling book *The Language of God* (2006), for example, biologist Francis Collins highlighted the role Lewis’s writings played in his own conversion to Christianity as well as invoking Lewis to defend the idea that Christians should accept the animal ancestry of humans.⁴ In a 2010 article in the journal *Perspectives on Science and Christian Faith*, philosopher Michael Peterson of Asbury University went considerably further. According to Peterson, Lewis not only embraced “both cosmic and biological evolution as highly confirmed scientific theories,” but he would have rejected out-of-hand arguments offered by modern proponents of intelligent design.⁵ In 2011, Peterson’s article on Lewis and evolution was serialized online by the pro-theistic-evolution group BioLogos.⁶

On one level, appeals to Lewis by proponents of theistic evolution are easy to understand. Despite more than a century of boosterism by Darwin’s defenders, many traditional Christians remain deeply skeptical of efforts to mix God and Darwinian evolution. Indeed, according to a nationwide survey of Protestant clergy released in 2012, an overwhelming 72% disagreed with the position that “God used evolution to create people.”⁷

The skepticism of theistic evolution by many Christians is fueled by leading theistic evolutionists who challenge Biblical authority, dismiss the historicity of the Fall, and even deny that God specifically directs the evolutionary process. According to Biblical studies professor Kenton Sparks (writing for the BioLogos website), “If Jesus as a finite human being erred from time to time, there is no reason at all to suppose that Moses, Paul, John wrote Scripture without error.”⁸ According to Karl Giberson (a co-founder of BioLogos with Francis Collins), human beings were selfish and sinful from the very start, so there was no actual “Fall.”⁹ And according to biologist Kenneth Miller, author of *Finding*

Darwin's God (a seminal text for modern American theistic evolutionists), God himself did not know whether the “undirected” process of evolution would produce human beings or something radically different, say, “a mollusk with exceptional mental capabilities.”¹⁰

In contrast to such heterodoxy, C. S. Lewis is a beloved icon of mainstream, historic Christianity. He provides a “Good Housekeeping” seal of approval for many Christians. If Lewis can be enlisted as a supporter of theistic evolution and a critic of intelligent design, perhaps theistic evolution will be able to broaden its base of support among traditional Christians.

There is little doubt that Lewis was interested in the topic of evolution. He discussed it repeatedly in his books and essays, although circumspectly. He wrote about it in his private letters. And his personal library contained more than a dozen books and pamphlets focused on evolution, some of which were marked up with extensive underlining and annotations, including his personal copy of Charles Darwin's *Autobiography*.¹¹

Although Lewis was interested in evolution, he also understood its cultural dominance, which helps explain his cageyness in publicly communicating about the topic. He observed to one correspondent that “Evolution etc” is the “assumed background” of modern thought.¹² He declined to write a preface to an anti-evolution book by someone else because he feared the repercussions for his public role as a Christian apologist: “Many who have been or are being moved towards Christianity by my books wd. be deterred by finding that I was connected with anti-Darwinism.”¹³

If Lewis was cautious about how much he criticized Darwinian evolution in public, he was equally careful to distance himself from evolution's uncritical boosters. Michael Peterson quotes Lewis in *Mere Christianity* as flatly affirming that “Everyone now knows... that man has evolved from lower types of life,” as if Lewis thought no reasonable person could disagree.¹⁴ But this is a case of putting words in Lewis's mouth through creative editing.

Here is the unedited version of what Lewis actually wrote in *Mere Christianity* with the words Peterson deleted in bold: “Everyone now knows about Evolution (though, of course, some educated people disbelieve it); everyone has been told that man has evolved from lower types of life.”¹⁵ Reading the sentence in its entirety, one can see that far from asserting that “Evolution” is something that “everyone now knows,” Lewis was merely stating that “everyone now knows *about* Evolution,” and “everyone has been *told*” certain things about it. This was a description of popular sentiment, not a statement about whether evolution is true or false. Lest someone misunderstand Lewis as endorsing the idea that no reasonable person can doubt evolution, Lewis added the caveat, “of course, some educated people disbelieve it.”

Lewis’s reservations about evolution in this passage were quite intentional, as they were inserted by him after the original radio talk that formed the basis of this section of *Mere Christianity*.¹⁶ Nevertheless, Lewis’s overall point in this passage had nothing to do with biological evolution at all. He invoked evolution as an analogy to help people better understand the Christian doctrine of sanctification. He cited evolution because he thought it was an illustration “a modern man can understand.”

So what *were* Lewis’s real views about evolution? To answer that question fairly, we first need to untangle the distinct ways in which Lewis employed the term.

One of the most challenging things about discussing “evolution” today is that the term is so elastic, covering everything from mere “change over time” to the development of all living things from one-celled organisms to man through an unguided process of natural selection acting on random variations. Evolution has so many different meanings, in fact, that if one doesn’t pay close attention, a conversation on the topic will quickly devolve into people talking past one another.¹⁷

Lewis addressed at least three different kinds of evolution in his writings: (1) evolution as a theory of common descent; (2) evolution as a theory of unguided natural selection acting on random variations (a.k.a.

Darwinism); and (3) evolution as a cosmic philosophy (a.k.a. “evolutionism”).

As we shall see, Lewis did not object in principle to evolution in the first sense (common descent), although he sharply limited its application in a way that mainstream proponents of evolution would find unacceptable. The case for Lewis as a supporter of evolution in the second sense (Darwinism) is almost non-existent. Lewis was a thoroughgoing skeptic of the creative power of unguided natural selection. As for evolution in the third sense—evolutionism—Lewis respected the poetry and grandeur of what he sometimes called the “myth” of evolution, but he certainly regarded it as untrue.

LEWIS’S LIMITED ACCEPTANCE OF COMMON DESCENT

COMMON DESCENT IS THE CLAIM that all organisms currently living have descended from one or a few original ancestors through a process Darwin called “descent with modification.” According to this idea, not only humans and apes share an ancestor, but so do humans, clams, and fungi. Common descent is a hallowed dogma among today’s evolution proponents, held with quasi-religious fervor.

Lewis clearly believed that Christians can accept evolution as common descent without doing violence to their faith. This is what Lewis was getting at when he wrote to evolution critic Bernard Acworth, “I believe that Christianity can still be believed, even if Evolution is true.”¹⁸ In Lewis’s view, whether God used common descent to create the first human beings was irrelevant to the truth of Christianity. As he wrote to one correspondent late in his life, “I don’t mind whether God made man out of earth or whether ‘earth’ merely means ‘previous millennia of ancestral organisms.’ If the fossils make it probable that man’s physical ancestors ‘evolved,’ no matter.”¹⁹

In *The Problem of Pain* (1940), Lewis even offers a possible evolutionary account of the development of human beings, although he makes clear he is offering speculation, not history: “[I]f it is legitimate to guess,” he writes, “I offer the following picture—a ‘myth’ in the Socratic sense,”

which he defines as “a not unlikely tale,” or “an account of what *may have been* the historical fact” (emphasis in the original). Lewis then suggests that “[f]or long centuries God perfected the animal form which was to become the vehicle of humanity and the image of Himself... The creature may have existed for ages... before it became man.”²⁰ Elsewhere, Lewis seemed smitten by the idea of embryonic recapitulation, the discredited evolutionary idea that human beings replay the history of their evolution from lower animals in their womb. And in a letter to his friend Anglican Nun Sister Penelope in 1952, he mentioned his previous speculation that the first human being was descended from “two anthropoids.”²¹

Nevertheless, Lewis did not exactly go out of his way to champion the animal ancestry of humans. When pressed on the subject by evolution critic Bernard Acworth in the 1940s, Lewis backpedaled, replying that his “belief that Men in general have immortal & rational souls does not oblige or qualify me to hold a theory of their pre-human organic history—if they have one.”²² A few years later, Lewis relished the exposure of “Piltdown Man” as a hoax. Originally touted as evidence for the long-sought “missing link” between apes and humans, the Piltdown Man’s skull was discovered in the 1950s to be a fake forged from the skull of a modern human, the jawbone of an orangutan, and the teeth of a chimpanzee.²³ Lewis wrote to Bernard Acworth that although he didn’t think the scandal should be exploited, “I can’t help sharing a sort of glee with you about the explosion of poor old Piltdown... one inevitably feels what fun it wd. be if this were only the beginning of a landslide.”²⁴ He wrote another correspondent, “The detection of the Piltdown forgery was fun, wasn’t it?”²⁵ Interestingly, four years before the definitive exposure of Piltdown as a fraud, Lewis had already published a poem that labeled the fossil the “fake from Piltdown.”²⁶ His final Narnian story, meanwhile, completed a few months after the Piltdown scandal hit the headlines, features as the villain an ape who insists he is really a human being—perhaps Lewis’s whimsical commentary on “poor old Piltdown.”²⁷

Whatever Lewis's final position on the animal ancestry of the human race, it would be wrong to conclude that his acceptance of some kind of human evolution placed him in the camp of mainstream evolutionary biology, or even of mainstream theistic evolution. In fact, Lewis insisted on three huge exceptions to evolutionary explanations of humanity that placed him well outside evolutionary orthodoxy, both then and now.

An Historic Fall

LEWIS'S FIRST exception to human evolution was his insistence on an actual Fall of Man from an original state of innocence. In Christian theology, God originally created human beings morally innocent. These first humans then freely rejected God's will for them, resulting in a Fall from innocence and harmony into the sinful condition of the human race as we currently find it. According to historic Christian teaching, not only human beings, but the entire creation was tainted by man's initial act of wrongdoing. It was to reverse the impact of the Fall that God became incarnate to save us from our sins. Thus, the Fall provides the necessary "back story" for Jesus Christ and his death on the cross.

Leading theistic evolutionists no less than secular evolutionists insist that an historic Fall is incompatible with mainstream evolutionary theory. In the words of Anglican Bishop John Shelby Spong, "Darwin... destroyed the primary myth by which we had told the Jesus story for centuries. That myth suggested that there was a finished creation from which we human beings had fallen into sin, and therefore needed a rescuing divine presence to lift us back to what God had originally created us to be. But Charles Darwin says that there was no perfect creation." Thus, "there was no perfect human life which then corrupted itself and fell into sin... And so the story of Jesus who comes to rescue us from the fall becomes a nonsensical story."²⁸

Spong is well known for being a theological liberal, but similar views are gaining prevalence among evangelical Christian proponents of evolution. Karl Giberson, a co-founder with Francis Collins of the protheistic-evolution group BioLogos, likewise repudiates the traditional

teaching that “sin originates in a free act of the first humans” and that “God gave humans free will and they used it to contaminate the entire creation.”²⁹ In his book *Saving Darwin*, Giberson has a section titled “Dissolving the Fall” where he essentially argues that since human beings were created through Darwinian evolution, they were never morally good. Instead, they were sinful from the start because the evolutionary process is based on selfishness: “Selfishness... drives the evolutionary process. Unselfish creatures died, and their unselfish genes perished with them. Selfish creatures, who attended to their own needs for food, power, and sex, flourished and passed on these genes to their offspring. After many generations selfishness was so fully programmed in our genomes that it was a significant part of what we now call human nature.”³⁰ Francis Collins wrote an enthusiastic foreword to Giberson’s book.

Lewis was well aware of the problems posed by mainstream evolutionary theory for the Christian concept of the Fall. His personal library included a copiously underlined copy of *The Unveiling of the Fall* (1923) by the Rev. C. W. Formby, which forcefully laid out the incompatibility of evolution and the traditional Christian belief that human beings and the world were originally created morally good.³¹ Lewis’s underlining of the book included the following passage outlining the sinful tendency of the evolutionary process as a whole: “Obviously this entire organic process, if not actually sin-producing, is, according to its natural self-centred principles, certainly conducive to sin, and has never ceased to manifest signs of this fact.”³² Accordingly, the evolutionary view as applied to man “places him before us already burdened with an inherently self-centred nature, dominated by those instinctive structures of animalism whose overpowering bias toward evil even to-day, after centuries of civilisation and restraint, is still sometimes irresistible. Thus, this theory puts man before us in a practically fallen condition from the start.”³³ Rev. Formby thought this view was theologically untenable because it forced us to adopt “the impossible belief that both sin and suffering came into existence as a practically unavoidable outcome of God’s direct action.”³⁴

Despite this apparent incompatibility of the evolutionary account with good theology, Formby was loath to disown either the Fall or evolution. Instead, he pulled the proverbial rabbit out of the hat and proposed a *pre-organic* fall of human beings.³⁵ That is, in his view the first human beings previously existed as spiritual beings and fell from grace *before* they became embodied. The pain and suffering brought about by evolution was therefore excusable because humans as well as animals were already fallen, and in a fallen state pain and suffering are used by God to bring fallen creatures back to him. Lewis refrained from adopting Formby's heterodox explanation, although he did suggest that the fall of Satan and his fellow angels had something to do with pain and suffering among the lower animals.³⁶ But regarding humans, Lewis insisted there was a real fall inside human history. He further made clear that this belief was non-negotiable in his view for orthodox Christians.

Noting that "[i]t is not yet obvious to me that all theories of evolution do contradict" the Fall, Lewis was emphatic that any evolutionary theory that does deny a real Fall is unacceptable: "I believe that Man has fallen from the state of innocence in which he was created: I therefore disbelieve in any theory wh. contradicts this."³⁷ Accordingly, Lewis was careful in *The Problem of Pain* to preserve an historical Fall as part of his hypothetical account of human evolution. Indeed, he titled the chapter in which his evolutionary account appears "The Fall of Man," and at the end of that chapter he declared that "the thesis of this chapter is simply that man, as a species, spoiled himself."³⁸ Following traditional Christian teaching, Lewis emphasized that man prior to the Fall had unimpeded fellowship with God. "God came first in his love and in his thought, and that without painful effort. In perfect cyclic movement, being, power and joy descended from God to man in the form of gift and returned from man to God in the form of obedient love and ecstatic adoration."³⁹ Lewis acknowledged that pre-Fall man might look crude when "[j]udged by his artefacts, or perhaps even by his language," and he did "not doubt that if the Paradisal man could now appear among us, we should regard

him as an utter savage." Yet Lewis added that upon taking a second look, "the holiest among us... would fall at his feet."⁴⁰

Lewis's account of human life before the Fall is worth close attention. He suggested that man in his original state lived in complete harmony with himself and his surroundings. Before the Fall, man's judgment exercised complete command of his appetites. Sleep was "not the stupor which we undergo, but willed and conscious repose." Lifespans were under man's control: "Since the processes of decay and repair in his tissues were similarly conscious and obedient, it may not be fanciful to suppose that the length of his life was largely at his own discretion." And man lived in harmony with the animals: "Wholly commanding himself, he commanded all lower lives with which he came into contact. Even now we meet rare individuals who have a mysterious power of taming beasts. This power the Paradisal man enjoyed in eminence. The old picture of the brutes sporting before Adam and fawning upon him may not be wholly symbolical."⁴¹

Lewis's description of human life before the Fall sounds very much like the literal "Eden" described by historic Christian teaching. Lewis embraced the essential reality of Eden, as did his close friend J. R. R. Tolkien, whose views on the matter were influenced by Lewis. According to Tolkien, Eden did not have an "historicity of the same kind as the N[ew] T[estament]," but it nevertheless really existed. "Genesis is separated by we do not know how many sad exiled generations from the Fall, but certainly there was an Eden on this very unhappy earth. We all long for it, and we are constantly glimpsing it: our whole nature at its best and least corrupted, its gentlest and most humane, is still soaked with the sense of 'exile.'⁴² In Tolkien's view, every expression of horror at some evil, as well as every idyllic memory of our home life, is "derived from Eden. As far as we can go back the nobler part of the human mind is filled with the thoughts of... peace and goodwill, and with the thought of its loss."⁴³ Tolkien bristled at how scientists had successfully brow-beaten Christians into disowning their belief in the reality of Eden: "As for Eden, I think most Christians... have been rather bustled

and hustled now for some generations by the self-styled scientists [who have]... tucked Genesis into a lumber-room of their mind as not very fashionable furniture, a bit ashamed to have it about the house, don't you know, when the bright clever young people called." But Tolkien added that he now no longer felt "either ashamed or dubious" about his belief in "the Eden 'myth.'"⁴⁴ He attributed his change of heart partly to his interactions with Lewis.

Lewis had little patience for those evolutionists (theistic or otherwise) who asserted that modern science made it impossible to believe in man's original Paradisal state and subsequent fall. At the heart of their assertions, in Lewis's view, was what he called "the idolatry of artefacts"⁴⁵—the assumption that we can discern the morality or intelligence of ancient peoples from their material products. Lewis pointed out that pottery shards or spear-heads might expose the primitive state of a prehistoric people's technology, but they do nothing to reveal the state of the people's morality or even their native intelligence. Such archaeological discoveries do not tell us whether prehistoric peoples were kind, or courageous, or noble, or just. Nor do they tell us about their capacity for poetry or song, let alone technological innovation. "What is learned by trial and error must begin by being crude, whatever the character of the beginner," wrote Lewis. So "[t]he very same pot" that "would prove its maker a dunce if it came after millenniums of pot-making" also "would prove its maker a genius if it were the first pot ever made in the world." Consequently, genuine "[s]cience... has nothing to say either for or against the doctrine of the Fall."⁴⁶

If Lewis dismissed claims that science refuted the Fall, he was equally skeptical of efforts to reinterpret the Fall to make it part of evolutionary history. In the standard evolutionary picture (popularized by Darwin himself in *The Descent of Man*), human beings started out as brutes and only gained morality and religion after a long struggle for survival.⁴⁷ Given this view of the development of human beings, it is hardly surprising that some theistic evolutionists have concluded that if there was a "Fall" in evolutionary history, it must have been a "fall upward" into

greater maturity and responsibility of the sort advocated by liberal theologians since Hegel and Kant. For example, contemporary Christian thinker Brian McLaren argues that the Fall is best understood not as a fall from a higher state of innocence and goodness, but as a “compassionate coming of age story” that represents “the first stage of ascent as human beings progress from the life of hunter-gatherers to the life of agriculturalists and beyond.”⁴⁸ McLaren does acknowledge that the ascent of man is marked by struggles with sin. But he seems to believe that human wrongdoing is a natural part of God’s plan to bring about human maturity. Lewis spent much of his novel *Perelandra* (1943) critiquing this kind of thinking, arguing that God intended for human beings to progress to self-knowledge and maturity by obedience, not rebellion.⁴⁹ Four years later in his book *Miracles* (1947), Lewis ridiculed those who “say that the story of the Fall in *Genesis* is not literal; and then go on to say (I have heard them myself) that it was really a fall upwards—which is like saying that because ‘My heart is broken’ contains a metaphor, it therefore means ‘I feel very cheerful’. This mode of interpretation I regard, frankly, as nonsense.”⁵⁰

Lewis continued to defend the reality of the Fall to those who corresponded with him. “I’m not a Fundamentalist in the strict sense... But I often agree with the Fundamentalists about particular passages where literal truth is rejected by many moderns,” Lewis wrote to a correspondent in 1955. Lewis went on to reaffirm his belief in “the Fall” and echo his argument from *The Problem of Pain* by stating that “I don’t see what the findings of the scientists can say either for or against it. You can’t see from looking at skulls or flint implements whether man fell or not.” He then referred his correspondent to *The Problem of Pain* as well as “G. K. Chesterton[s] *The Everlasting Man* which is excellent on this point.”⁵¹ To another correspondent who questioned the grounds of Lewis’s belief that the earliest humans lived unfallen in a paradise-like state, Lewis replied: “[Y]ou *do* know very well what grounds I have for assuming the existence of *Paradisal Man*—namely that it is part of orthodox Christianity.”⁵²

A Literal Adam

LEWIS NOT only believed in an historic Fall; he also embraced the literal existence of Adam and Eve, which was another important exception to his acquiescence to human evolution. Lewis's acceptance of an historical Adam and Eve is widely unrecognized today. Popular Christian pastor Tim Keller, for example, writes that "C. S. Lewis... did not believe in a literal Adam and Eve."⁵³ Keller is misinformed, at least when it comes to Lewis's beliefs after he became a Christian. While Lewis was still a young atheist in the 1920s, he certainly disbelieved in Adam and Eve, although he was simultaneously skeptical of orthodox Darwinism.⁵⁴ By the 1940s, however, he was publicly noncommittal, writing in *The Problem of Pain* that "we do not know how many of these [unfallen] creatures God made, nor how long they continued in the Paradisal state."⁵⁵ In private, he was not so reticent. In a discussion at his home attended by Oxford colleague Helen Gardner, Lewis stated that the person from history he would most like to meet in heaven was Adam. When Gardner protested that "if there really were, historically, someone whom we could name as 'the first man,' he would be a Neanderthal ape-like figure, whose conversation she could not conceive of finding interesting," Lewis is said to have responded with disdain: "I see we have a Darwinian in our midst."⁵⁶

It is worth noting that throughout Lewis's imaginative works, Adam and Eve are typically treated as real figures from history, not as allegories or myths, even when the characters in Lewis's stories are seeking to explain truths about the "real" world. In the Narnian Chronicles, human beings are repeatedly referred to as "Sons of Adam" and "Daughters of Eve," and during Lewis's telling of a temptation story on another planet in *Perelandra*, the hero repeatedly affirms the teachings of traditional theology to the planet's equivalent of Eve, including a traditional account of Adam and Eve: "Long ago, when our world began, there was only one man and one woman in it, as you and the King are in this. And there once before he [the Tempter] stood, as he stands now, talking to

the woman... And she listened, and did the thing Maleldil [God] had forbidden her to do. But no joy and splendour came of it."⁵⁷

Additionally, Lewis treated Adam as a real person in history in his private correspondence. To his friend St. Giovanni Calabria, an Italian priest, he wrote about the "necessary doctrine that we are most closely joined together alike with the sinner Adam and with the Just One, Jesus,"⁵⁸ while to another correspondent he described his novel *Perelandra* as the working out of the "supposition" that what happened to Adam and Eve on earth could happen to another first couple elsewhere: "Suppose, even now, in some other planet there were a first couple undergoing the same [temptation] that Adam and Eve underwent here, but successfully."⁵⁹

A Mindless Process Could Not Produce Man

LEWIS'S FINAL exception to human evolution was his insistence that the development of human beings required far more than a mindless material process. In his own words, his speculations about human evolution "had pictured Adam as being, physically, the son of two anthropoids, on whom, after birth, God worked the miracle which made him Man."⁶⁰ In Lewis's view, Darwinian evolution might possibly explain man's physical form; but it could not explain man's mind, his morality, or his eternal soul. That is because the driving force of modern Darwinism was supposed to be the mindless mechanism of natural selection acting on random variation, and Lewis was deeply skeptical about what such a mindless mechanism could actually achieve.

LEWIS'S DOUBTS ABOUT THE CREATIVE POWER OF NATURAL SELECTION

LEWIS KNEW THAT THE TRULY momentous feature of modern evolutionary theory is not its proposal that life has a long history, nor even its claim that humans and apes share a common ancestor. No, the truly radical part of modern evolutionary theory is its insistence that life is the product of an unguided process. The claim that evolution is the product of chance and necessity is not just the product of the fevered imagina-

tions of muscular “New Atheists” like biologist Richard Dawkins. It forms the very core of orthodox Darwinian theory, which claims that the primary driver of evolution is an unguided process of natural selection (or “survival of the fittest”) operating on random variations in nature (random mutations, according to modern evolutionists).

Darwin himself repeatedly made clear that evolution by natural selection neither required nor involved intelligent guidance. Indeed, according to Darwin, his theory of natural selection provided a definitive refutation of the idea that the features of the natural world reflected a preconceived design:

The old argument of design in nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings and in the action of natural selection, than in the course which the wind blows.⁶¹

If natural selection was unguided in Darwin’s view, so too were the variations in nature on which selection acted. Objecting to those who claimed that beneficial variations in nature might be the result of intelligent design, Darwin declared:

no shadow of reason can be assigned for the belief that variations... which have been the groundwork through natural selection of the formation of the most perfectly adapted animals in the world, man included, were intentionally and specially guided. However much we may wish it, we can hardly follow Professor Asa Gray in his belief “that variation has been led along certain beneficial lines,” like a stream “along definite and useful lines of irrigation.”⁶²

The dominant view of evolution today in the scientific community remains essentially Darwinian. In the words of 38 Nobel laureates who issued a statement defending Darwin’s theory in 2005, evolution is “the result of an *unguided, unplanned* process of random variation and natural selection.”⁶³

One certainly can conceive of a theory of guided evolution, but mainstream Darwinian theory is not it. *Darwinian* evolution by definition is an unguided process that brings forth new things through a combination of chance and necessity. But can such a fundamentally mindless and undirected process create the exquisite form and function seen throughout the natural world? Lewis was skeptical.

Lewis did affirm that “[w]ith Darwinianism as a theorem in Biology I do not think a Christian need have any quarrel.”⁶⁴ But for Lewis “Darwinianism as a theorem in Biology” was a pretty modest affair. Contra leading evolutionists, Lewis thought the “purely biological theorem... makes no cosmic statements, no metaphysical statements, no eschatological statements.” Nor can Darwinism as a scientific theory explain many of the most important aspects of biology itself: “It does not in itself explain the origin of organic life, nor of the variations, nor does it discuss the origin and validity of reason.” So what *can* the Darwinian mechanism explain according to Lewis? “Granted that we now have minds we can trust, granted that organic life came to exist, it tries to explain, say, how a species that once had wings came to lose them. It explains this by the negative effect of environment operating on small variations.”⁶⁵ In other words, according to Lewis, Darwin’s theory explains how a species can change over time by losing functional features it already has. Suffice to say, this is not the key thing the modern biological theory of evolution purports to explain. Noticeably absent from Lewis’s description is any confidence that Darwin’s unguided mechanism can account for the formation of fundamentally new forms and features in biology. Natural selection can knock out a wing, but can it build a wing in the first place? Lewis didn’t seem to think so.

A further indication of just how skeptical Lewis was about the creative power of natural selection appears in a talk he delivered to the Oxford University Socratic Club in 1944. There Lewis stated that “[t]he Bergsonian critique of orthodox Darwinism is not easy to answer.”⁶⁶ Lewis was referring to Henri Bergson (1859–1941), a French natural philosopher and Nobel laureate who offered a decidedly non-Darwinian

account of evolution in his book *L'Evolution Creatice* (*Creative Evolution*).⁶⁷

Lewis first read Bergson during World War I while recovering from shrapnel wounds from the front lines, and the experience on Lewis was profound. In his autobiography *Surprised by Joy*, Lewis said that Bergson “had a revolutionary effect on my emotional outlook... From him I first learned to relish energy, fertility, and urgency; the resource, the triumphs, and even the insolence, of things that grow.” Lewis also was grateful to Bergson for making him “capable of appreciating artists who would, I believe, have meant nothing to me before; all the resonant, dogmatic, flaming, unanswerable people like Beethoven, Titian (in his mythological pictures), Goethe, Dunbar, Pindar, Christopher Wren, and the more exultant Psalms.”⁶⁸ Lewis continued to re-read Bergson in the years that followed as he continued his studies at Oxford. During the summer of 1920, he wrote a friend that he was “reading Bergson now and find all sort of things plain sailing which were baffling a year ago.”⁶⁹ A year earlier, he wrote his father that he was living in anticipation of a visit to Oxford by Bergson, but commented wistfully that “I suppose I shall not see [him]... unless he gives a lecture.”⁷⁰ The impact of Bergson on Lewis is indicated in Lewis’s 1917 copy of *L'Evolution Creatice*, which is filled with careful annotations and underlining on most of its nearly 400 pages.⁷¹

Bergson was an unsparing critic of the creative power of Darwinian natural selection. Granting that “[t]he Darwinian idea of adaptation by automatic elimination of the unadapted is a simple and clear idea,” he argued that precisely “because it attributes to the outer cause which controls evolution a merely negative influence, it has great difficulty in accounting for the progressive and, so to say, rectilinear development of complex apparatus” like the vertebrate eye.⁷² Bergson stressed that Darwinism’s reliance on accidental variations as the raw material for evolution made the development of highly coordinated and complex features found in biology nothing short of incredible. This was the case regardless of whether the accidental variations were slight or large.

As Bergson noted, some Darwinians insisted that the variations used by evolution were so slight that they would not hinder the survival of the organism: "For a difference which arises accidentally at one point of the visual apparatus, if it be very slight, will not hinder the functioning of the organ; and hence this first accidental variation can, in a sense, wait for complementary variations to accumulate and raise vision to a higher degree of perfection." Bergson granted the point, but then noted the problem it raised: "[W]hile the insensible variation does not hinder the functioning of the eye, neither does it help it, so long as the variations that are complementary do not occur. How, in that case, can the variation be retained by natural selection? Unwittingly one will reason as if the slight variation were a tooting stone set up by the organism and reserved for a later construction." But "[t]his hypothesis" is obviously "little conformable to the Darwinian principle," which emphasizes that natural selection acts mechanically and without foresight.⁷³ To get around this problem, other Darwinists claimed that evolution relied on large accidental variations that provided evolutionary leaps. "But here there arises another problem, no less formidable," wrote Bergson, "viz., how do all the parts of the visual apparatus, suddenly changed, remain so well coordinated that the eye continues to exercise its function? For the change of one part alone will make vision impossible, unless this change is absolutely infinitesimal. The parts must then all change at once, each consulting the others." Even "supposing chance to have granted this favour once, can we admit that it repeats the self-same favour in the course of the history of a species, so as to give rise, every time, all at once, to new complications marvellously regulated with reference to each other, and so related to former complications as to go further on in the same direction?"⁷⁴

The sheer improbability of the Darwinian explanation increases exponentially once one realizes how frequently the same complex biological features are supposed to have arisen independently in different evolutionary lineages. In the words of Bergson: "What likelihood is there that, by two entirely different series of accidents being added together, two

entirely different evolutions will arrive at similar results?"⁷⁵ The whole idea was incredible according to Bergson:

An accidental variation, however minute, implies the working of a great number of small physical and chemical causes. An accumulation of accidental variations, such as would be necessary to produce a complex structure, requires therefore the concurrence of an almost infinite number of infinitesimal causes. Why should these causes, entirely accidental, recur the same, and in the same order, at different points of space and time?

Responding to his own question, Bergson replied that "[n]o one will hold that this is the case, and the Darwinian himself will probably merely maintain that identical effects may arise from different causes, that more than one road leads to the same spot." But this was fallacious reasoning: "[L]et us not be fooled by a metaphor. The place reached does not give the form of the road that leads there; while an organic structure is just the accumulation of those small differences which evolution has had to go through in order to achieve it." Hence, "[t]he struggle for life and natural selection can be of no use to us in solving this part of the problem, for we are not concerned here with what has perished, we have to do only with what has survived."⁷⁶

From the extensive annotations Lewis made in his personal copy of *L'Evolution Creatice*, it is clear that he understood and appreciated Bergson's critique of natural selection. Lewis aptly summarized the Darwinian mechanism of adaptation according to Bergson as the "[e]limination of the unfit" and noted that it "plainly cannot account for complicated similarities on divergent lines of evolution."⁷⁷ Lewis also noted Bergson's view that "pure Darwinism has to lean on a marvellous series of accidents" and how Darwinists try to "escape" this truth "by a bad metaphor."⁷⁸ Lewis paid particular attention to Bergson's critique of Darwinian accounts of eye evolution in mollusks and vertebrates, concluding that "[n]atural selection... fails to explain these Eyes."⁷⁹

Bergson's critique of natural selection likely paved the way for Lewis's doubts about Darwin, and may help explain Lewis's comment to his

father in 1925 that “Darwin and Spencer... stand themselves on a foundation of sand.”⁸⁰ But Lewis’s skepticism toward natural selection was fueled by more than Bergson.

The ultimate challenge to Darwinian natural selection in Lewis’s view was man himself. How could such a blind material process produce man’s unique capabilities of reason and conscience? Lewis, of course, was far from the first intellectual to doubt Darwinism’s ability to explain man. Alfred Russel Wallace, co-founder with Darwin of the modern theory of evolution itself, raised the same doubts, as did Roman Catholic zoologist St. George Jackson Mivart, whose best-selling book *The Genesis of Species* gave Darwin fits. To rebut the naysayers, Darwin responded in 1871 with two volumes and nearly 900 pages of prose in his treatise *The Descent of Man*, which forcefully argued that unguided natural selection could produce man’s mental and moral faculties perfectly well, thank you.

Lewis thought otherwise, and he was tutored in his doubts by a book from one of his favorite authors, G. K. Chesterton. The book was Chesterton’s *The Everlasting Man* (1922), which Lewis read for the first time in the mid-1920s. Near the end of his life, Lewis placed *The Everlasting Man* on a list of ten books that “did [the] most to shape” his “vocational attitude and... philosophy of life.” In chapter 2 of *The Everlasting Man* (“Professors and Prehistoric Men”), Chesterton skewered the pretensions of anthropologists who spun detailed theories about the culture and capabilities of primitive man based on a few flints and bones, likely inspiring Lewis’s discussion of “the idolatry of artefacts” in *The Problem of Pain*. But Chesterton also provides in his book a full-throttled argument as to why Darwinism cannot explain the higher capabilities of man. In Chesterton’s words, “Man is not merely an evolution but rather a revolution” whose rational faculties far outstrip those seen in the other animals. Chesterton acknowledged the possibility that man’s “body may have been evolved from the brutes,” but he insisted that “we know nothing of any such transition that throws the smallest light upon his soul as it has shown itself in history.”⁸¹ Again: “There may be a broken trail of

stones and bones faintly suggesting the development of the human body. There is nothing even faintly suggesting such a development of the human mind.”⁸²

Chesterton’s book prepared the ground for Lewis’s own eventual critique of natural selection with regard to man—as did a lesser-known volume, *Theism and Humanism* (1915) by Sir Arthur Balfour. Balfour, best remembered today as the British Prime Minister who issued the Balfour Declaration, adapted *Theism and Humanism* from the Gifford Lectures he had presented at the University of Glasgow in 1914. Balfour’s goal was to show his audience “that if we would maintain the value of our highest beliefs and emotions, we must find for them a congruous origin. Beauty must be more than accident. The source of morality must be moral. The source of knowledge must be rational.” Balfour thought that once this argument “be granted, you rule out Mechanism, you rule out Naturalism, you rule out Agnosticism; and a lofty form of Theism becomes, as I think, inevitable.”⁸³ With regard to the human mind, Balfour argued that any effort to explain mind in terms of blind material causes was self-refuting: “[A]ll creeds which refuse to see an intelligent purpose behind the unthinking powers of material nature are intrinsically incoherent. In the order of causation they base reason upon unreason. In the order of logic they involve conclusions which discredit their own premises.”⁸⁴ Balfour offered a similar critique of materialistic accounts of human morality, which he thought destroyed morality by depicting it as the product of processes that are essentially non-moral. Balfour takes special aim throughout his book at Darwinian explanations of mind and morals.

It is not known when exactly Lewis first came across *Theism and Humanism*. His father Albert owned a copy of a previous Balfour book, *The Foundations of Belief* (1895), but Lewis’s first known mention of *Theism and Humanism* was in a lecture in the 1940s.⁸⁵ He later listed it as one of the books that influenced his philosophy of life the most,⁸⁶ and its basic arguments are on prominent view in Lewis’s *Miracles: A Preliminary Study* (1947). As Paul Ford points out, “[T]he thesis and even

the language of Balfour's first Gifford lectures permeates the first five chapters of *Miracles*.⁸⁷

The revised 1960 edition of *Miracles* is generally recognized as presenting Lewis's most mature critique of the ability of naturalism/materialism to account for man's rational faculties. What is less noticed is the challenge Lewis's book raises for Darwinian evolution in particular. Theistic evolutionists like Michael Peterson prefer to treat Lewis's argument in *Miracles* as dealing merely with generic philosophical naturalism. But the specific example of naturalism Lewis attacks at length in his book is Darwinian natural selection, not plain vanilla naturalism.

In the words of Lewis, naturalists argue that "[t]he type of mental behavior we now call rational thinking or inference must... have been 'evolved' by natural selection, by the gradual weeding out of types less fitted to survive."⁸⁸ Lewis flatly denied that such a Darwinian process could have produced human rationality: "[N]atural selection could operate only by eliminating responses that were biologically hurtful and multiplying those which tended to survival. But it is not conceivable that any improvement of responses could ever turn them into acts of insight, or even remotely tend to do so." This is because "[t]he relation between response and stimulus is utterly different from that between knowledge and the truth known."⁸⁹ Natural selection could improve our responses to stimuli from the standpoint of physical survival without ever turning them into *reasoned* responses. Following Balfour, Lewis goes on to argue that attributing the development of human reason to a non-rational process like natural selection ends up undermining our confidence in reason itself. After all, if reason is merely an unintended by-product of a fundamentally non-rational process, what grounds do we have left for regarding its conclusions as objectively true?

Lewis knew that the corrosive impact of a Darwinian account of the mind was not merely theoretical. In his personal copy of Darwin's *Autobiography*, he highlighted two passages where Darwin questioned whether the conclusions of a mind produced by a Darwinian process could in fact be trusted. In the first passage, Darwin acknowledged "the

extreme difficulty or rather impossibility of conceiving this immense and wonderful universe, including man... as the result of blind chance or necessity. When thus reflecting, I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and I deserve to be called a Theist." Darwin claimed that this conclusion "was strong in my mind about the time... when I wrote the *Origin of Species*," although "since that time... it has very gradually, with many fluctuations, become weaker." As a result, he now "must be content to remain an agnostic." Why had Darwin's confidence in the existence of a First Cause collapsed? Apparently because he realized the implications of his theory for the human mind: "But then arises the doubt—can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions?"⁹⁰ Lewis placed an "x" next to this revealing admission by Darwin, and he underlined an even stronger statement by Darwin making the same point three pages later. In a passage from a letter written in 1881, Darwin expressed his inconstant belief "that the Universe is not the result of chance" and then added: "But then with me the horrid doubt always arises whether the convictions of man's mind, which has been developed from the mind of the lower animals, are of any value or at all trustworthy. Would any one trust in the convictions of a monkey's mind, if there are any convictions in such a mind?"⁹¹ (underlining by Lewis)

Lewis argued that the theist need not suffer such paralyzing doubts because "[h]e is not committed to the view that reason is a comparatively recent development moulded by a process of selection which can select only the biologically useful. For him, reason—the reason of God—is older than Nature, and from it the orderliness of Nature, which alone enables us to know her, is derived." Thus, "the preliminary processes within Nature which led up to" the human mind—"if there were any"—"were designed to do so."⁹² In short, if an evolutionary process did produce the human mind, it was not Darwinian evolution. It was evolution by intelligent design.

Just as Lewis in *Miracles* rejected a Darwinian explanation for the human mind because it undermined the validity of reason, he rejected a Darwinian account of morality because it would undermine the authority of morality by attributing it to an essentially amoral process of survival of the fittest. As a practical matter, Lewis questioned whether Darwinism could actually explain the development of key human moral traits such as friendship or romantic love.⁹³ But in *Miracles* he made a more fundamental point: A Darwinian process “may (or may not) explain why men do in fact make moral judgments. It does not explain how they could be right in making them. It excludes, indeed, the very possibility of their being right.”⁹⁴ According to Lewis, by attributing our moral beliefs and practices completely to mindless and non-moral causes, Darwinists undermined the belief that moral standards are something objectively true or even the belief that some moral beliefs are objectively preferable over others.

After all, if human behaviors and beliefs are ultimately the products of natural selection, then all such behaviors and beliefs must be equally preferable. The same Darwinian process that produces the maternal instinct also produces infanticide. The same Darwinian process that generates love also brings forth sadism. The same Darwinian process that inspires courage also spawns cowardice. Hence, the logical result of a Darwinian account of morality is not so much immorality as relativism. According to Lewis, the person who offers such an account of morality should honestly admit that “there is no such thing as wrong and right... no moral judgment can be ‘true’ or ‘correct’ and, consequently... no one system of morality can be better or worse than another.”⁹⁵

Near the end of his life, Lewis made this point with hilarious results in a “hymn” he wrote lampooning Darwinian evolution. The hymn mocked the blind and undirected nature of Darwinism: “Lead us, Evolution lead us/ Up the future’s endless stair... Groping, guessing, yet progressing,/ Lead us nobody knows where.” As Lewis wryly points out, once one excludes a higher purpose from biological evolution (as Darwin tried to do), traditional standards of human progress and decay no lon-

ger make sense: “Never knowing where we’re going,/ We can never go astray.” Applied to morality, Darwinism’s philosophy of endless change repudiates “[s]tatic norms of good and evil/ (As in Plato) throned on high;/ Such scholastic, inelastic,/ Abstract yardsticks we deny.”⁹⁶

Whether in reference to man’s intellect or to his morals, the cardinal difficulty with Darwinian natural selection according to Lewis is that it is mindless, and a mindless process should not be expected to produce either minds or genuine morals.

This shows why it would be so misleading to classify Lewis as a theistic evolutionist, at least as that term is typically used today. Theistic evolution can mean many things, including a form of guided evolution, but many contemporary proponents of theistic evolution are more accurately described as theistic Darwinists. That is, they do not merely advocate a guided form of common descent, but they attempt to combine evolution as an undirected Darwinian process with Christian theism. Although they believe in God, they strenuously want to avoid stating that God actually guided biological development. For example, Anglican John Polkinghorne writes that “an evolutionary universe is theologically understood as a creation allowed to make itself.”⁹⁷ Former Vatican astronomer George Coyne claims that because evolution is unguided “not even God could know... with certainty” that “human life would come to be.”⁹⁸ And Christian biologist Kenneth Miller of Brown University, author of the popular book *Finding Darwin’s God* (which is used in many Christian colleges), insists that evolution is an undirected process, flatly denying that God guided the evolutionary process to achieve any particular result—including the development of us. Indeed, Miller insists that “mankind’s appearance on this planet was not preordained, that we are here... as an afterthought, a minor detail, a happenstance in a history that might just as well have left us out.”⁹⁹

In short, many modern theistic evolutionists want to retain a belief in a Creator without actually affirming the guidance of that Creator in the history of life. In their view, the Creator delegated the development of life to a self-contained mindless process from which mind and morals

emerged over time. Modern theistic evolution's attempt to strike a third way between materialism and intelligent design with a kind of emergent evolution has all the logical coherence of a circular square, or theistic atheism.

Lewis was familiar with attempts in his own day to imbue blind evolution with some sort of purposiveness while still denying the operation of a guiding intelligence, and he was not persuaded. This was where he ultimately broke with his mentor Henri Bergson. Bergson, in addition to critiquing natural selection, offered his own alternative to Darwinism, a muddled proposal for a vital force that somehow impels the evolutionary process toward integrated complexity without the need for an overarching designer. Lewis never attacked Bergson's critique of Darwinian natural selection, but after he became a Christian he repeatedly attacked Bergson's non-intelligent alternative. He did the same with George Bernard Shaw, who extolled a view, similar to Bergson's, of "emergent evolution," the view that although evolution is not actually guided by an overarching intelligent purpose, purposeful structures that transcend blind matter somehow emerge from the process.¹⁰⁰

In a section of *Mere Christianity* that is too little read, Lewis dissects this supposed third way between outright materialism and a history of life guided by design:

People who hold this view say that the small variations by which life on this planet 'evolved' from the lowest forms to Man were not due to chance but to the 'striving' or 'purposiveness' of a Life-Force. When people say this we must ask them whether by Life-Force they mean something with a mind or not. If they do, then 'a mind bringing life into existence and leading it to perfection' is really a God, and their view is thus identical with the Religious. If they do not, then what is the sense in saying that something without a mind 'strives' or has 'purposes'? This seems to me fatal to their view.¹⁰¹

In his novel *Perelandra*, Lewis satirizes the incoherence of the emergent evolution view, which he assigns to the villain of the story, Professor E. R. Weston, a scientist run mad. Lewis gives Weston a speech of non-

sequiturs and mumbo-jumbo where he solemnly appeals to “the unconsciously purposive dynamism” and “[t]he majestic spectacle of this blind, inarticulate purposiveness thrusting its way... ever upward in an endless unity of differentiated achievements toward an ever-increasing complexity of organization, towards spontaneity and spirituality.” Weston ultimately identifies this blind and unconscious purposiveness with what he calls “the religious view of life” and even with “the Holy Spirit.”¹⁰²

The hero of the story, Dr. Elwin Ransom, is not impressed. “I don’t know much about what people call the religious view of life,” he replies. “You see, I’m a Christian. And what we mean by the Holy Ghost is not a blind, inarticulate purposiveness.”¹⁰³

Near the end of his life, Lewis read prominent theistic evolutionist Pierre Teilhard de Chardin’s posthumously published book *The Phenomenon of Man*, which proposed yet another kind of emergent evolution. Lewis filled his copy of the book with critical annotations such as “Yes, he is quite ignorant,” “a radically bad book,” and “Ever heard of death or pain?” (The last comment responded to de Chardin’s statement that “[s]omething threatens us, something is more than ever lacking, but without our being able to say exactly what.”¹⁰⁴) In his letters to others, Lewis called de Chardin’s book “both commonplace and horrifying,”¹⁰⁵ and he derided de Chardin’s position as “pantheistic-biolatrous waffle”¹⁰⁶ and “evolution run mad.”¹⁰⁷ To a Jesuit priest Lewis even praised the Jesuits’ attempt to muzzle de Chardin: “How right your Society was to shut up de Chardin!”¹⁰⁸

Lewis’s rejection of emergent evolution exposes why his way of thinking is ultimately so friendly to intelligent design. Lewis knew that ultimately there is no third way, no half-way house, no magical hybrid: Biological development is either the result of an unintelligent material process or a process guided by a mind, a.k.a. intelligent design. One can’t split the difference. One has to choose. That being the case, Lewis thought that a mind-driven process is a far more plausible option than a mindless one.

LEWIS'S CRITIQUE OF EVOLUTIONISM

IN ADDITION TO LIMITING HIS acceptance of common descent and critiquing the power of unguided natural selection, Lewis throughout his life attacked what he called "evolutionism" or the "Myth" of "Evolution." This was evolution as a materialistic creation story that provides a competing narrative to traditional monotheism. Purporting to embody the discoveries of modern science, this "Myth" teaches that the cosmos was preceded by "the infinite void and matter endlessly, aimlessly moving to bring forth it knows not what. Then by some millionth, millionth chance—what tragic irony!—the conditions at one point of space and time bubble up into that tiny fermentation which we call organic life." Against the hostility of Nature and without purposeful direction or design, life "spreads, it breeds, it complicates itself... from the amoeba up to the reptile, up to the mammal." Finally, "there comes forth a little, naked, shivering, cowering biped, shuffling, not yet fully erect, promising nothing: the product of another millionth, millionth chance. His name in this Myth is Man." Eventually "he has become true Man. He learns to master Nature. Science arises and dissipates the superstitions of his infancy. More and more he becomes the controller of his own fate."¹⁰⁹ Finally, mankind becomes "a race of demi-gods" with the assistance of Darwinian eugenics, psychoanalysis, and economics. Then "the old enemy" Nature returns with a vengeance. The Sun cools, and life is "banished without hope of return from every cubic inch of infinite space. All ends in nothingness."¹¹⁰

"I grew up believing in this Myth and I have felt—I still feel—its almost perfect grandeur," observed Lewis rather wistfully. "Let no one say we are an unimaginative age: neither the Greeks nor the Norsemen ever invented a better story."¹¹¹ For Lewis, the problem with this "Myth" is not that it does not appeal to the imagination, but that it is all imagination and no logic. In fact, it contradicts the very foundation of the scientific worldview it claims to espouse.

The scientific method is premised on the idea that "rational inferences are valid," but the Myth undercuts human reason by depicting

it as “simply the unforeseen and unintended by-product of a mindless process at one stage of its endless and aimless becoming. The content of the Myth thus knocks from under me the only ground on which I could possibly believe the Myth to be true.” Darwin’s own gnawing doubt rears its head yet again: “If my own mind is a product of the irrational... how shall I trust my mind when it tells me about Evolution?”¹¹²

Lewis distinguished cosmic evolutionism from the “science” of evolution, and he initially attributed it to the distortions of popularizers and journalists rather than scientists themselves. However, Lewis’s distinction between evolution and evolutionism was somewhat artificial. The core of the modern scientific theory of biological evolution, after all, is Darwinism, and the core of Darwinism is the claim that evolution is an undirected material process that proceeds without either plan or foresight. Darwin himself defined natural selection as a substitute for intelligent design. In the end, then, cosmic evolutionism does not seem to be much of an extrapolation from the mainstream “scientific” theory of evolution. Indeed, the main features of what Lewis called evolutionism were baked into that scientific theory from the start.

Lewis eventually came to better understand just how intertwined evolution as a scientific theory was with what he had called evolutionism. Much of Lewis’s growing awareness was likely due to his 16-year correspondence with Bernard Acworth, a leader in Britain’s Evolution Protest Movement. Starting in the mid-1940s, Acworth began sending Lewis books and essays critical of Darwin’s theory, materials which Lewis read and retained for his private library.¹¹³

Soon after coming into contact with Acworth, Lewis drew attention to a comment made by evolutionary zoologist David Watson that seemed to expose the dogmatism driving the beliefs of prominent evolutionary scientists. “Evolution,” declared Prof. Watson, “...is accepted by zoologists not because it has been observed to occur or... can be proved by logically coherent evidence to be true, but because the only alternative, special creation, is clearly incredible.”¹¹⁴ Lewis drew this quote from an article written by two of Acworth’s colleagues in the Evolution Protest

Movement. Lewis found Watson's comment "disquieting."¹¹⁵ Nevertheless, he still trusted that "[m]ost biologists have a more robust belief in Evolution than Professor Watson." Otherwise it "would mean that the sole ground for believing [evolution]... is not empirical but metaphysical—the dogma of an amateur metaphysician who finds 'special creation' incredible. But I do not think it has really come to that."¹¹⁶

By 1951, Lewis was not so sure. Acworth sent him a lengthy manuscript critical of evolution, and Lewis wrote back that he had "read nearly the whole" of it. Acworth's manuscript hit home. "I must confess it has shaken me," Lewis wrote, "not in my belief in evolution, which was of the vaguest and most intermittent kind, but in my belief that the question was wholly unimportant." Lewis added that the most telling point for him was the dogmatism of the evolutionary scientists cited by Acworth: "What inclines me now to think that you may be right in regarding it [evolution] as the central and radical lie in the whole web of falsehood that now governs our lives is not so much your arguments against it as the fanatical and twisted attitudes of its defenders."¹¹⁷ Lewis could no longer easily maintain that evolutionism was simply something foisted on evolutionary science by outsiders. He was appalled by the growing dogmatism and intolerance he saw among evolutionists, who seemed to treat any criticism of their views as an attack upon science itself.

Lewis had a sharply different vision of what science should be like, and he made clear that knee-jerk orthodoxy was not part of it. In Lewis's view, there was nothing anti-science about questioning dogmatic claims made in the name of science. As he came to appreciate even more deeply in the final years of his life, the scientific enterprise requires humility and an open mind in order to prosper. Those two qualities often seem sadly lacking in discussions of evolution today.

LEWIS'S MOST IMPORTANT LEGACY FOR THE EVOLUTION DEBATE

"IT IS ABSOLUTELY SAFE TO say that if you meet somebody who claims not to believe in evolution, that person is ignorant, stupid or insane (or

wicked, but I'd rather not consider that)."¹¹⁸ Thus proclaims prominent evolutionary biologist Richard Dawkins from Lewis's own Oxford University. Dawkins is sometimes treated as a fringe figure because of his evangelistic atheism, but his view about the irrationality of questioning Darwinian evolution is standard fare in the evolutionary science community, where triumphalist assertions abound that the evidence for evolution is too overwhelming to question.

During Lewis's own lifetime, one finds leading evolutionary geneticist H. J. Muller declaring: "So enormous, ramifying, and consistent has the evidence for evolution become that if anyone could now disprove it, I should have my conception of the orderliness of the universe so shaken as to lead me to doubt even my own existence."¹¹⁹ Or consider statements from more recent decades by evolutionary biologist Douglas Futuyma ("the statement that organisms have descended with modifications from common ancestors... is not a theory. It is a fact, as fully as the fact of the earth's revolution about the sun"¹²⁰) and Harvard biologist Richard Lewontin ("Birds arose from nonbirds and humans from nonhumans. No person who pretends to any understanding of the natural world can deny these facts any more than she or he can deny that the earth is round, rotates on its axis, and revolves around the sun"¹²¹). Eugenie Scott, head of the pro-Darwin lobbying group the National Center for Science Education and someone who calls herself an "evolution evangelist," is equally emphatic: "There are no weaknesses in the theory of evolution."¹²² None. Zero. Welcome to the Church of Darwinian Fundamentalism and its doctrine of scientific infallibility.

Sadly, this kind of over-the-top rhetoric is found among theistic and atheistic defenders of Darwinism alike. For example, Christian geneticist Francis Collins condemns his fellow Christians who disagree with Darwinian evolution as peddling "lies" and promoting "anti-scientific thinking."¹²³ Theologian Michael Peterson, meanwhile, claims that "[i]t is actually quite fair to say that evolution shares equal status with such established concepts as the roundness of the earth, its revolution around the sun, and the molecular composition of matter."¹²⁴ Get the point?

The person who criticizes Darwin's theory is equivalent to someone who thinks the earth is flat, who believes the sun revolves around the earth, and who apparently doesn't accept microscopes or the periodic table.

It is hard to believe that Lewis would have had any sympathy at all for this kind of bluster. After all, he himself questioned large chunks of modern evolutionary theory, including the ability of natural selection to explain mind, morality, and the development of complex biological structures. Lewis did grant that biological evolution was a "genuine scientific hypothesis" worthy of discussion.¹²⁵ But he sharply distinguished in his own mind a "hypothesis" from dogmatic claims that something is a "basic fact." Lewis was very clear that what he meant by "hypothesis" was an interpretation of facts based on assumptions; and a hypothesis must therefore always be open to challenge and repeal. In his view "real biologists" (as opposed to propagandists) recognized that evolution is simply a hypothesis, not a dogmatic truth. "It covers more of the facts than any other hypothesis at present on the market and is therefore to be accepted unless, or until, some new supposal can be shown to cover still more facts with even fewer assumptions."¹²⁶

At the root of Lewis's willingness to question evolutionary claims was a healthy skepticism of the scientific enterprise itself. Lewis respected modern science, and he respected modern scientists. But unlike many contemporary champions of evolution, he did not embrace a simple-minded view of natural science as fundamentally more authoritative or less prone to error than all other fields of human endeavor.

One of the last books about science Lewis read before he died was *The Open Society and Its Enemies* by philosopher Karl Popper. Near the end of that book, Popper frankly admits the lack of objectivity to be found even in experimental science. Lewis underlined the passage:

For even our experimental and observational experience does not consist of 'data'. Rather, it consists of a web of guesses—of conjectures, expectations, hypotheses with which there are interwoven accepted, traditional, scientific, and unscientific, lore and prejudice. There simply is

no such thing as pure experimental and observational experience—experience untainted by expectation and theory.¹²⁷

Lewis's growing awareness of the human fallibility of science was expressed powerfully in his final book, *The Discarded Image* (1964).¹²⁸ Published after his death, the book is ostensibly about the medieval worldview. But the nature of science is one of the underlying themes. Lewis argues in the book that scientific theories are "supposals" and should not be confused with "facts." Properly speaking, scientific theories try to account for as many facts as possible with as few assumptions as possible. But according to Lewis, we must always recognize that such explanations can be wrong: "In every age it will be apparent to accurate thinkers that scientific theories, being arrived at in the way I have described, are never statements of fact. That stars appear to move in such and such ways, or that substances behaved thus and thus in the laboratory—these are statements of fact."¹²⁹ By contrast, the theories that seek to explain these facts "can never be more than provisional." They "have to be abandoned" if someone thinks of a "supposal" that can account for "observed phenomena with still fewer assumptions, or if we discover new phenomena" that the previous theory cannot account for "at all."¹³⁰ Lewis said he believed that "all *thoughtful* scientists today" would be able to recognize this truth, although he did not speculate about how many "thoughtful scientists" actually exist. He did think the biggest problem with scientific dogmatism lay outside the scientific community, where "[t]he mass media... have in our time created a popular scientism, a caricature of the true sciences."¹³¹ Nevertheless, any scientist who engages in such dogmatism would clearly be doing something inappropriate according to Lewis.

However, the truly radical part of Lewis's critique of modern science was still to come. In his epilogue to *The Discarded Image*, Lewis discusses at length the shift from the medieval to the modern model of biology. It soon becomes evident that he does not think empirical evidence drives scientific revolutions. Lewis declares that the Darwinian revolution in particular "was certainly not brought about by the discovery of new facts."¹³²

Lewis recalled that when he was young he “believed that ‘Darwin discovered evolution’ and that the far more general, radical, and even cosmic developmentalism... was a superstructure raised on the biological theorem. This view has been sufficiently disproved.” What really happened according to Lewis was that “[t]he demand for a developing world—a demand obviously in harmony both with the revolutionary and the romantic temper” had developed first, and when it was “full grown” the scientists went “to work and discover[ed] the evidence on which our belief in that sort of universe would now be held to rest.”¹³³

Lewis’s view has momentous implications for how we view the reigning paradigms in science at any given time—including Darwinian evolution. “We can no longer dismiss the change of Models [in science] as a simple progress from error to truth,” argued Lewis. “No Model is a catalogue of ultimate realities, and none is a mere fantasy... But... each reflects the prevalent psychology of an age almost as much as it reflects the state of that age’s knowledge.” Lewis added that he did “not at all mean that these new phenomena are illusory... But nature gives most of her evidence in answer to the questions we ask her.”¹³⁴

So the answers we receive from nature are dictated by the questions we ask, and the questions we ask are shaped by the assumptions and expectations of the scientific theories we embrace—assumptions and expectations likely borrowed from larger cultural attitudes that predated the scientific evidence they seek to interpret. Hence, the potential for even good scientific theories to blind us to key aspects of reality is huge.

Nowhere is this more true than in the field of Darwinian evolution itself, which is based on the inviolable assumption that everything in biology must be the result of unguided material processes. Over the past century, this assumption has undoubtedly inspired many interesting research questions and scientific advances. At the same time, it also has undoubtedly discouraged and delayed many *other* important research questions. Witness the unhelpful Darwinian preoccupation with “vestigial” organs over the past century. Time and again, biological features we do not fully understand have been dismissed by advocates of Darwinian

evolution as non-functional leftovers from a blind evolutionary process. Time and again, researchers who eventually bothered to look discovered that such supposedly “vestigial” features—the appendix and tonsils, to name two—actually perform important biological functions.¹³⁵ The evidence of function was there all along, but scientists were discouraged by the existing paradigm from asking the questions that would elicit the evidence.

More recently, one of the biggest mistakes in the history of modern biology may turn out to be the belief that the human genome is riddled with “junk DNA.” Random mutations in protein-coding DNA are supposed to drive Darwinian evolution, and so when it was discovered that the vast majority of DNA does not code for proteins, some leading Darwinists jumped to the conclusion that non-protein-coding DNA must be mere “junk” left over from the evolutionary process just like some vestigial organs. Not only that, leading evolutionists ranging from atheist Richard Dawkins to Christian Francis Collins championed “junk DNA” as proof that human beings were the result of a Darwinian process rather than intentional design.¹³⁶

However, when scientists finally started to look more closely at non-coding DNA, they were shocked to learn that reality did not correspond to their ideological assumptions. Indeed, over the past decade science journals have been flooded with new research showing the rich and varied functionality of so-called “junk DNA.” In the words of biologist Jonathan Wells: “Far from consisting mainly of junk that provides evidence against intelligent design, our genome is increasingly revealing itself to be a multidimensional, integrated system in which non-protein-coding DNA performs a wide variety of functions.”¹³⁷ Again, the evidence of functionality in non-protein-coding DNA was always there to find; but the evidence was not forthcoming because few people were asking the right questions. As Lewis pointed out so perceptively, treating reigning paradigms in science as all-encompassing dogmas will blind us to how much about nature we may be missing. Such dogmatism also breeds a kind of scientific authoritarianism that is incompatible with a free soci-

ety, which Lewis eloquently rebuked in books such as *The Abolition of Man* and *That Hideous Strength*.¹³⁸

By highlighting the all-too-human frailties of modern science, Lewis made his most important contribution to the evolution debate. In essence, Lewis legitimized the right to dissent from Darwin. By stressing the non-scientific underpinnings of scientific revolutions, Lewis showed that Darwinian evolution should not be privileged as some special form of knowledge that is immune from critical scrutiny. By exposing just how limited a window on reality a given scientific theory can provide, he validated the continued questioning of Darwinian evolution as well as other theories in science.

Indeed, Lewis predicted that it was partly by raising the right questions that the current (Darwinian) model of biology might be replaced. He used the analogy of placing someone on trial: "Here, as in the courts, the character of the evidence depends on the shape of the examination, and a good cross-examiner can do wonders."¹³⁹

Lewis's words proved prophetic. In 1991, Berkeley law professor Phillip Johnson did precisely what Lewis had described by publishing his book *Darwin on Trial*, which mounted a full-throttled cross-examination of the standard evidence for orthodox Darwinism.¹⁴⁰ C. S. Lewis was proved right again: A "good cross-examiner" really *can* "do wonders." Igniting a furor among leading Darwinists, Johnson's book helped inspire a whole new generation of scientists and philosophers to launch increasingly sophisticated challenges to Darwinian theory as well as to formulate a fresh argument for intelligent design in nature.

Like Lewis, Phillip Johnson understood that "nature gives most of her evidence in answer to the questions we ask her." And he recognized the critical importance of asking "the right questions" in scientific debates—even when those questions may make the guardians of the existing paradigm uncomfortable or angry.¹⁴¹

Those who truly want to honor C. S. Lewis's legacy in the area of science and society would do well to do likewise.¹⁴²

Endnotes

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10. Miller quoted in John G. West, *Darwin Day in America: How Our Politics and Culture Have Been Dehumanized in the Name of Science* (Wilmington, DE: ISI Books, 2007), 226; more generally, see discussion on 225–227; also see Kenneth Miller, *Finding Darwin's God* (New York: HarperCollins, 1999).
11. Some of these books and pamphlets with a significant focus on evolution in Lewis's library include Bernard Acworth, *The Cuckoo*; Alfred Balfour, *Theism and Humanism*; Henri Bergson, *L'Evolution Creatrice*; Charles Darwin, *Autobiography*; L. M. Davies, *BBC Abuses Its Monopoly*; L. M. Davies, *Evolutionists Under Fire*; Douglas Dewar, *The Man from Monkey Myth*; Douglas Dewar, *Science and the BBC*; Evolution Protest Movement, *Evolution: How the Doctrine Is Propagated in Our Schools*; C. W. Formby, *The Unveiling of the Fall*; E. O. James, *Evolution and the Fall*; Edmund Sinnott, *Biology of the Spirit*; Joseph Solomon, *Bergson*; Pierre Teilhard de Chardin, *The Phenomenon of Man*. Much of Lewis's personal library is currently housed at the Wade Center, Wheaton College. For a listing of the extant books from Lewis's personal library, consult the description in "C. S. Lewis Library" (Wade Center, 2010), accessed May 18, 2012, http://www.wheaton.edu/wadecenter/Collections-and-Services/Collection%20Listings/~media/Files/Centers-and-Institutes/Wade-Center/RR-Docs/Non-archive%20Listings/Lewis_Public_shelf.pdf.

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13. C. S. Lewis to Bernard Acworth, Oct. 4, 1951, in *The Collected Letters of C. S. Lewis*, edited by Walter Hooper (San Francisco: HarperSanFrancisco, 2007), vol. III, 140.
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100. See Lewis, *Mere Christianity*, 35; C. S. Lewis to Bernard Acworth, March 5, 1960, *Collected Letters*, vol. III, 137; Lewis, *The Four Loves*, 152–153; C. S. Lewis, *Studies in Words* (Cambridge: Cambridge University Press, 1960), 300–301.
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7

C. S. LEWIS AND INTELLIGENT DESIGN

John G. West

A FEW MONTHS AFTER BEING DISCHARGED FROM THE ARMY AT THE end of World War I, a twenty-year-old C. S. Lewis published his first book, a cycle of poems titled *Spirits in Bondage* (1919).¹ The opening poem, “Satan Speaks,” provided a grim view of nature that might startle many of Lewis’s later readers:

I am Nature, the Mighty Mother,
I am the law: ye have none other.
I am the flower and the dewdrop fresh,
I am the lust in your itching flesh.
I am the battle’s filth and strain,
I am the widow’s empty pain.
I am the sea to smother your breath,
I am the bomb, the falling death...
I am the spider making her net,
I am the beast with jaws blood-wet²

Many of the poems in *Spirits in Bondage* displayed Lewis’s passionate, even angry, atheism during this period of his life, inspired by what he referred to as the “Argument from Undesign”: the idea that the pain, cruelty, and wastefulness of nature supplies the best evidence against the view that a benevolent deity created the world.³

Lewis’s captivation by the argument from undesign reflected not only the personal tragedies of his life (such as the death of his mother from cancer during his childhood), but also his reading of scientific ma-

terialists like H. G. Wells who nourished the young Lewis's imagination with depictions of the universe as vast, cold, and impersonal.⁴ Even after Lewis became a Christian, he remained skeptical of the traditional "argument from design," which purported to show that from various features of nature one can prove the existence of the Christian God. In his book *The Problem of Pain* (1940), Lewis prefaces his first chapter with a comment by Pascal that "[i]t is a remarkable fact that no canonical writer has ever used Nature to prove God."⁵ Writing to a former student in 1946, Lewis reaffirmed that "I still think the argument from design the weakest possible ground for Theism, and what may be called the argument from un-design the strongest for Atheism."⁶ And writing in his autobiography *Surprised by Joy* (1956), Lewis recalled the impact on his thought of the Greek materialist Lucretius's refutation of design: "Had God designed the world, it would not be / A world so frail and faulty as we see."⁷

Lewis's powerful attraction to the argument from undesign makes all the more remarkable his eventual embrace of several arguments favorable to design.

FOUR LEWIS ARGUMENTS FRIENDLY TO A UNIVERSE BY DESIGN

LEWIS COUNTERED THE ARGUMENT FROM undesign with several positive arguments in favor of the existence of a transcendent intelligent cause for nature. They include:

1. The argument from natural beauty.

FROM EARLY ON, Lewis's pessimistic view of nature as "red in tooth and claw"⁸ was counterbalanced by the longings stirred within him by nature's beauty.⁹ Even in *Spirits in Bondage*, the bleak vision of nature presented in some of his poems can be contrasted with poems describing scenes of overwhelming beauty that raised glimmers of the transcendent. For Lewis, our experience of beauty in nature pointed to the reality of something beyond nature:

Atoms dead could never thus
 Stir the human heart of us
 Unless the beauty that we see
 The veil of endless beauty be¹⁰

In Lewis's view, the longings provoked by earthly beauty could not be accounted for by a blind and mechanistic material universe. They required a transcendent cause outside of nature. This cause was not necessarily personal, but it did go beyond blind matter and energy. As a consequence, it put an intelligent agent back on the table as one of the options for discussion.

2. The argument from morality.

LEWIS EVENTUALLY recognized that the argument from undesign suffered from a critical flaw: If the material universe is all there is, and if human beings are simply the products of that universe, then on what basis can they criticize the universe for being so bad?¹¹ By judging the universe in this way, human beings are presupposing the existence of a moral standard outside of material nature that can judge nature. But where did this moral standard come from? The existence in every culture of a standard by which the current operations of nature are judged implies the existence of a transcendent moral cause outside of nature. Again, this transcendent moral cause is not necessarily personal, but a transcendent personal God is one of the alternatives that can now be considered.

3. The argument from reason.

AS DISCUSSED in detail in chapters 6, 8, and 9, Lewis argued that reason cannot be accounted for by an undirected material process of chance and necessity such as natural selection acting on random mutations. If reason could be accounted for in this way, according to Lewis, we would have no reason to trust the conclusions of our minds, including the conclusion that our minds are the products of a material process of chance and necessity. The bottom line for Lewis is that the existence of reason

within nature points to a need for reason outside of nature as a transcendent intelligent cause.¹²

4. The argument from functional complexity.

ACCORDING TO Lewis, “universal evolutionism” has schooled us to think that in nature complicated functional things naturally arise from cruder and less complicated things. Oak trees come from acorns, owls from eggs, and human beings from embryos. But for Lewis this “modern acquiescence in universal evolutionism is a kind of optical illusion” that defies the actual data of the natural world.¹³ In each of the aforementioned cases, complex living things arose from even more complex living things. Every acorn originally came from an oak tree. Every owl’s egg came from an actual owl. Every human embryo required two full-grown adult human beings. We see the same pattern in human culture. The “evolution” from coracles to steamships, or from one of the early locomotives (the “Rocket”) to modern train engines, requires a cause that is greater than either steamships or train engines. “We love to notice that the express [train] engine of today is the descendant of the ‘Rocket’; we do not equally remember that the ‘Rocket’ springs not from some even more rudimentary engine, but from something much more perfect and complicated than itself—namely, a man of genius.”¹⁴ Lewis made clear the relevance of this truth for understanding the wonderful functional complexity we see throughout nature: “You have to go outside the sequence of engines, into the world of men, to find the real originator of the Rocket. Is it not equally reasonable to look outside Nature for the real Originator of the natural order?”¹⁵

This is explicitly an argument for intelligent design, and Lewis implies that this line of reasoning was central to his own disavowal of materialism. “On these grounds and others like them one is driven to think that whatever else may be true, the popular scientific cosmology at any rate is certainly not.”¹⁶ This argument for intelligent design does not in and of itself lead to the Christian God according to Lewis. But it opens the door to considering the alternatives to materialism of “philosophical

idealism” and “Theism,” and from there one may well progress to full-blooded Christian theism after further reflection.¹⁷

Despite Lewis’s clear support for the idea that key features of nature point to an intelligent cause, there have been efforts recently to cast Lewis as an opponent of the contemporary argument for intelligent design. Most notably, theologian Michael Peterson argued this thesis in a lengthy piece published in 2010 and serialized the following year on the BioLogos Foundation website.¹⁸ Peterson’s mischaracterization of Lewis’s views on Darwinian evolution were already discussed in chapter 6. The next section will examine Peterson’s misrepresentation of Lewis on the question of intelligent design, followed by a discussion of how Lewis in fact rebutted several key objections raised against the modern theory of intelligent design. (Readers more interested in what Lewis had to say than in Peterson’s interpretations of Lewis are invited to skip the following section.)

LEWIS AND THE STRAW MAN VERSION OF INTELLIGENT DESIGN

MICHAEL PETERSON ACKNOWLEDGES THE OBVIOUS fact that Lewis put forward various arguments in favor of an intelligent cause of the universe, but then asserts that “none of these lines of reasoning are really design-type arguments.”¹⁹ This statement is clearly false with regard to the argument from functional complexity described above (which Peterson does not discuss); but Peterson’s claim is also misleading with regard to Lewis’s argument from reason, which Peterson himself earlier admits is “closely related” to “design-type” arguments. Regardless, Peterson’s overall point is even more problematic: His thesis seems to be that Lewis would have rejected the argument for intelligent design as it has been developed over the past several years by scientists and philosophers such as Michael Behe, William Dembski, and Stephen Meyer.

Peterson’s evidence for this thesis is thin to say the least. Lewis died in 1963, and so any arguments about whether Lewis “would” have opposed or embraced current arguments about intelligent design are high-

ly speculative. Aslan's warning in the *Chronicles of Narnia* would seem to be apropos: "[N]o one is ever told *what would have happened*."²⁰ Be that as it may, the most serious problem with Peterson's thesis is that it is based more on his misunderstanding of intelligent design than it is on Lewis's views about anything. Indeed, Peterson spends more than 40% of his article providing a highly inaccurate rendition of intelligent design rather than presenting evidence of Lewis's own views on the topic. Now if intelligent design really consisted of some of the claims Peterson puts forward, Lewis might well have opposed it. The problem is that Peterson misrepresents the modern theory of intelligent design, and so his article in the end provides almost no insight into what Lewis would have thought about the theory as espoused by its actual proponents.

Unfortunately, Peterson shows scant evidence that he has read much by the intelligent design proponents he seeks to critique. Of the scores of books and technical articles published by intelligent design theorists over the past two decades, Peterson appears to base his criticisms on a grand total of two books, Michael Behe's *Darwin's Black Box* (1996) and William Dembski's *Intelligent Design: The Bridge Between Science and Theology* (1999).²¹ Both volumes were published more than a decade ago. Although important, they hardly provide an adequate summary of the current state of thinking among intelligent design proponents. In a footnote to his original article, Peterson does reference a third book, *Signature in the Cell*, published in 2009, but it is unclear whether he has read it since he attributes the book to someone named "David Myer." In fact, the book was written by Cambridge-trained philosopher of science Stephen Meyer.²²

Peterson's mischaracterization of intelligent design commences with his initial description of its origins. He states that "[i]n the late 1990s, the 'intelligent design' (ID) movement emerged... rejecting evolutionary principles and purporting to have a hot, new scientific argument for God."²³ There are multiple problems with this claim.

First, although the modern intelligent design movement gained prominence by the late 1990s, it began to emerge considerably earlier

with the publication of the books *Chance or Design?* in 1979, *The Mystery of Life's Origin* in 1984, and *Evolution: A Theory in Crisis* in 1985.²⁴ These books, in turn, built upon discoveries in physics, cosmology, and biology reaching back to the 1950s.²⁵

Second, intelligent design theorists did not offer intelligent design as “a hot, new scientific argument for God.” In fact, leading intelligent design proponents (especially William Dembski and Michael Behe, the two scholars cited by Peterson) made a much more nuanced claim. They argued that scientific evidence corroborates the proposition that key features of nature are the product of an intelligent cause rather than an undirected process such as Darwinian natural selection. Far from claiming that this is a “hot, new scientific argument for God,” they emphasized that modern intelligent design theory in biology—unlike the old natural theology of say, William Paley—could not reach that far on its own. This is not to deny that intelligent design has positive implications for belief in God. If nature supplies evidence that it is the product of an intelligently guided process, that understanding of reality certainly lends more support to belief in God than the idea that nature is the product of a blind, undirected process like Darwinism. Nevertheless, any claim that an intelligent cause detected by science must be God (let alone the God of the Bible) requires additional arguments from philosophy and metaphysics to justify it.

In the words of biochemist Michael Behe, intelligent design as a scientific research program “is limited to design itself; I strongly emphasize that it is not an argument for the existence of a benevolent God, as Paley’s was. I hasten to add that I myself do believe in a benevolent God, and I recognize that philosophy and theology may be able to extend the argument. But a scientific argument for design in biology does not reach that far.”²⁶ Mathematician William Dembski likewise stressed that modern intelligent design theory is “more modest” than the old natural theology because it does not try to claim that science alone can get you to the God of the Bible. That is why “[i]ntelligent design as a scientific theory is distinct from a theological doctrine of creation. Creation presupposes a

Creator who originates the world and all its materials. Intelligent design attempts only to explain the arrangement of materials within an already given world. Design theorists argue that certain arrangements of matter, especially in biological systems, clearly signal a designing intelligence."²⁷

Given that these comments from Dembski appeared in one of the two books advocating design that Peterson actually cites, it is mystifying how Peterson could get things so completely wrong. The mystery increases when later in his article Peterson seemingly contradicts himself and insists that "IDers will not say that the Intelligent Being behind nature is God."²⁸

Well, which is it? Do "IDers" claim that intelligent design is "a hot, new scientific argument for God"? Or do they refuse to divulge whether the intelligent designer is God? The actual answer is neither. As the previous quote from Behe attests, intelligent design proponents who believe in God are certainly willing to say so. *What they are unwilling to do is claim that science alone can establish their belief in God.* They are unwilling to make this more expansive claim because they are being honest about the limits of modern science. Modern science cannot prove everything, and intelligent design theorists do not claim otherwise.

The third and perhaps most serious error in Peterson's description of intelligent design is his sweeping claim that the intelligent design movement "reject[s] evolutionary principles."²⁹ That is simply false, at least in the way that Peterson defines evolution.

Peterson's expansive definition of evolution encompasses not only "biological evolution" but "cosmic evolution," which he describes as "beginning with the Big Bang 13.7 billion years ago" and continuing with the production of galaxies and stars and planets.³⁰ Peterson's conflation of "cosmic evolution" and "biological evolution" into one meta-narrative is intellectually sloppy. "Cosmic evolution" and "biological evolution" are hardly the same thing. They are based on different evidence, make different claims, and raise different issues. Lumping them together may make the term "evolution" seem more grandiose, but it does almost nothing to illuminate the topic under discussion. Peterson's definition

of “biological evolution” is just as unhelpful. It focuses entirely on the claim that biological life is the product of a long history of common descent without even identifying the mechanism that is supposed to make wholesale biological change possible.

The problem for Peterson is that modern intelligent design theory is not opposed to either “cosmic” or “biological” evolution as he defines those terms. Most intelligent design theorists certainly do not reject “cosmic evolution” beginning with the Big Bang. Indeed, many of the standard arguments for intelligent design in cosmology, physics, and astronomy are premised on the long history of the universe outlined by Peterson.³¹ Nor is intelligent design incompatible with “biological evolution” when such evolution is defined merely as common descent. Although intelligent design theorists hold different views about the adequacy of the evidence for “universal” common descent (i.e., the idea that all organisms ultimately descend from the same common ancestor), they repeatedly make clear that intelligent design itself is compatible with such a belief. Thus, William Dembski writes that “[i]ntelligent design is compatible with both a single origin of life (i.e., common descent or monophyly) and multiple origins of life (i.e., polyphyly).”³² Biochemist Michael Behe goes even further and affirms: “the idea of common descent (that all organisms share a common ancestor) fairly convincing, and have no particular reason to doubt it.”³³ Discovery Institute, with whom most of the major proponents of intelligent design are affiliated, likewise states that if “evolution” is defined as the idea “that living things are related by common ancestry, then there is no inherent conflict between evolutionary theory and intelligent design theory.”³⁴ Given that the quotations from William Dembski and Michael Behe just cited appeared in the only two books about intelligent design actually cited by Peterson, it is hard to understand how he could get this point wrong too. But he does.

Contrary to the muddled presentation in Peterson’s article, the key tenet of “biological evolution” that intelligent design directly challenges is not common descent, but something Peterson curiously left out of his definition of evolution: The Darwinian claim that biological change is

the product of an unguided process. Darwin was not the first person to propose that life had a long history or even to believe in common descent. His more important contribution was the hypothesis that such change over time could be achieved through a blind and undirected mechanism that could create fundamentally new things without the benefit of any foresight or planning. The mechanism that was supposed to achieve such wonders was natural selection acting on random variations (random mutations, according to modern scientists). It is important to understand that this claim that life is the product of a mindless and unguided process is not merely the invention of today's atheist Darwinists like Richard Dawkins. It was the core claim made by Darwin himself, and it is the core claim made by modern evolutionary theory today (sometimes known as "Neo-Darwinism").³⁵

It is this in-your-face claim that biological change must be the product of an undirected process without foresight that intelligent design challenges based on the scientific evidence. Whether or not undirected material processes are capable of producing the exquisite beauty and functional complexity we see throughout the universe is *the* fundamental issue for intelligent design. Peterson's critique thus completely misses the point from the outset.

Peterson's confused view of intelligent design does not get any clearer later in his article. For example, he apparently thinks he is arguing against intelligent design when he claims that "Christians need not accept the notion that there are complex biological structures created directly by God without antecedent forms; they may hold a different view of how God brought about biological complexity."³⁶ But, again, intelligent design does not demand any such "notion." It does not rule out the existence of antecedent biological forms but only the Darwinian claim that such antecedents must have been produced as part of a mindless and undirected process.

Throughout his attack on intelligent design, Peterson seeks to convey the impression that intelligent design theorists reject the scientific method, reject "mainstream science," and are even "proposing God as

a scientific explanation.”³⁷ Wrong, wrong, and wrong again. Far from rejecting the scientific method, intelligent design theorists seek to apply the methods of modern science to the issue of detecting design in nature. Indeed, as Stephen Meyer meticulously argues in his book *Signature in the Cell*, modern intelligent design theorists employ the method of the historical sciences pioneered by Charles Lyell and adopted by Darwin himself. That method is based on the idea that “the present is the key to the past,” and it seeks to explain past events by recourse to causes we see regularly operating today. As Meyer points out, we have abundant evidence from our own personal experience that intelligent causes can and do produce certain kinds of highly functional complexity (think computers, automobiles, and toasters). At the same time, we have abundant empirical evidence that non-intelligent causes do not seem able to produce these same kinds of highly functional complexity on their own today. Given this situation, the best explanation for the kinds of highly functional complexity under investigation is an intelligent cause.³⁸ Again, the logic of the design inference articulated by Meyer follows the very scientific method employed by Darwin to come to his conclusions. So if adopting this approach constitutes a rejection of the scientific method, Darwin himself stands guilty of the same charge.

As for the intimation that intelligent design theorists reject “mainstream science” in favor of “an alternative way of doing science,” Peterson has confused raising questions about current scientific theories with rejecting “mainstream science.” The present author knows quite a number of intelligent design theorists and scientists. He does not know of any who reject the periodic table, the germ theory of disease, the sphericity of the earth, the law of gravity, the discoveries of genetics, or any number of other findings of “mainstream science.” Most of them embrace the standard models in cosmology and geology, and all of them accept core teachings of chemistry, cellular biology, mathematics, and similar disciplines. What they don’t accept are dogmatic claims that unguided mechanisms are sufficient to explain the exquisite beauty and functional complexity we see throughout the biosphere and the universe. And

when did questioning certain aspects of current scientific theories become a wholesale rejection of “mainstream science”? By that silly standard, Darwin himself was an opponent of “mainstream science,” as are all scientists who propose new scientific theories or challenges old ones. Fortunately, “mainstream science” itself recognizes (at least in principle) that scientists need to be willing to reconsider old ideas based on new evidence. So instead of subverting mainstream science, intelligent design proponents are upholding its core commitment to open scientific inquiry.

Peterson’s assertion that intelligent design scientists are “proposing God as a scientific explanation” is equally misplaced. Intelligent design theorists are proposing that science can detect the effects of intelligent causes within nature, not offering “God as a scientific explanation.” There is a difference, and Peterson, as a philosopher, ought to be able to grasp it.

Peterson also offers up the hoary chestnut that intelligent design is based on “God of the gaps” reasoning that tries to fill current gaps in scientific knowledge with God. Wrong again. As Stephen Meyer points out, the modern version of the design inference is not an argument from ignorance, but an argument from knowledge. It based not on what we don’t know about nature, but about what we *do* know. We have first-hand knowledge of what intelligent agents are capable of producing, and we have growing evidence about what unguided Darwinian natural selection *cannot* do in both the lab and the wild. Based on that extensive knowledge, design theorists argue that intelligent causation is the best explanation for certain features of nature.³⁹

Ironically, it is Darwinism, not intelligent design, that has the real problem with reasoning from the “gaps.” Darwinists typically embrace what biologist Jonathan Wells has aptly termed a “Darwin of the Gaps” approach.⁴⁰ Time and again, when functions for certain biological features have not been immediately apparent, Darwinists simply assume that the biological features must have been the product of a blind and undirected Darwinian process. This was the sort of flawed reasoning that led to the misclassification of the appendix and the tonsils as use-

less “vestigial organs,” and which more recently inspired the colossal mistake of concluding that more than 90% of our DNA is “junk” because it doesn’t code for proteins.⁴¹

A final point about intelligent design: While Peterson seeks to define “evolution” as encompassing everything from the formation of planets to the development of life, he tries to reduce modern intelligent design to mean irreducible complexity in biology, and then to suggest that this is completely different from “fine-tuning” arguments at the level of the universe. But this is an arbitrary distinction. Irreducible complexity is simply the “fine-tuning” argument applied to biology. Just as the laws of nature are finely tuned for the existence of life, many systems in biology seem to be exquisitely fine-tuned for their functions. These are conceptually the same kinds of arguments, which is why intelligent design theorists are interested in the fine-tuning of nature at all levels—from the universe as a whole to the operations of the cell to the chemical building blocks of life itself.

At this point, some readers are undoubtedly wondering what any of this has to do with C. S. Lewis’s views on intelligent design. They are right to wonder: Although Michael Peterson’s article is titled “C. S. Lewis on Evolution and Intelligent Design,” in the end it has very little to do with Lewis. It is mostly a platform for Peterson to launch his own misguided critique of intelligent design. That is unfortunate. If Peterson had focused more on what Lewis said, he might have realized that Lewis has important lessons to teach us about the contemporary intelligent design debate. But they aren’t the lessons he thinks, as we are about to see.

LEWIS’S REFUTATION OF SEVEN ARGUMENTS AGAINST INTELLIGENT DESIGN

ALTHOUGH WE DO NOT KNOW how Lewis would have viewed the modern theory of intelligent design because he is no longer with us, we *do* know how Lewis would have responded to many of the standard arguments against intelligent design—because he responded to these same arguments when dealing with the issues of his own day. Lewis’s respons-

es to these arguments show just how skeptical he was of many standard materialist claims, and just how sympathetic he was to some of the main points raised by contemporary intelligent design theorists.

1. Unguided natural processes supersede the need for intelligent design.

ONE OF the most common arguments made today against intelligent design in biology is that intelligent design is unnecessary because we now *know* that complex biological features habitually emerge from simple parts through unguided evolutionary processes. Biologist Kathryn Applegate of the BioLogos Foundation, for example, claims that amazingly complicated molecular machines such as the bacterial flagellum (which functions like a high-tech outboard motor) self-assemble without any guiding intelligence because “[n]atural forces work ‘like magic.’” Applegate continues: “It is tempting to think the spontaneous formation of so complex a machine is ‘guided,’ whether by a Mind or some ‘life force’ but we know that the bacterial flagellum, like countless other machines in the cell, assembles and functions automatically according to known natural laws. No intelligence required.”⁴²

One wonders whether Dr. Applegate draws the same conclusion every time she opens a spreadsheet program and discovers that it “magically” adds and subtracts sums—no intelligence required. Or when her word processing program “magically” checks the grammar and spelling of her blog posts—no intelligence required. One further wonders whether Dr. Applegate has ever visited a modern assembly line, where robotic equipment “magically” assembles any number of amazing products—no intelligence required. Of course, intelligence *is* required for each of these actions; the intelligence simply happens to be pre-programmed from the minds of men into the computer operations and assembly instructions. Similarly, the so-called magical assembly of the bacterial flagellum requires massive amounts of genetic information encoded in DNA, and as Stephen Meyer has persuasively argued, that information requires intelligence.⁴³

As discussed earlier, Lewis thought that the sort of argument offered by Applegate was based on “a kind of optical illusion.” Or to put it more strongly, “[t]he obviousness or naturalness which most people seem to find in the idea of emergent evolution... seems to be a pure hallucination.”⁴⁴ Lewis observed dryly that in the real world “[w]e have never actually seen a pile of rubble turning itself into a house.”⁴⁵ Instead, what we actually observe in nature are complex living things habitually arising out of equally complex living things, and simpler things that turn into complex things being preceded by the very complex things that they grow into. Acorns become oak trees not from something even simpler than an acorn, but from fully developed oak trees. Eggs that hatch into chickens ultimately arise not from undifferentiated protoplasm but from fully developed chickens who lay eggs. Molecular machines in bacteria ultimately arise not from simpler parts but from earlier bacteria that already have those same molecular machines. As a result, the ordinary physical processes of nature do not explain the actual origins of the complex functional features we find in nature; even less can they explain away the need for an intelligent cause for those features. “On any view, the first beginning must have been outside the ordinary processes of nature,” wrote Lewis.⁴⁶ From our own experience of the creation of machines and human artifacts, the natural candidate for that outside cause is an intelligent designer according to Lewis.

2. Intelligent design is unnecessary because of the laws of nature.

A VARIATION of argument 1 is the claim that “natural laws” can create highly complex biological features without the need for intelligent design. Dr. Applegate alluded to this idea when she claimed that “the bacterial flagellum, like countless other machines in the cell, assembles and functions automatically according to known natural laws” and that this meant there was “[n]o intelligence required.” Wrong again, according to Lewis, who pointed out that the “laws of nature” are absolutely incapable of causing anything on their own: “The laws of motion do not set billiard

balls moving; they analyze the motion after something else (say, a man with a cue, or a lurch of the liner, or, perhaps, supernatural power) has provided it."⁴⁷ The laws of nature require input from outside, and if the effects caused are beyond the reach of blind chance ("a lurch of the liner") the input will need to come from an intelligent source ("a man with a cue" or a "supernatural power").

3. Intelligent design is a science-stopper.

ONE DOES NOT have to delve very deeply into current debates over intelligent design to encounter the claim that intelligent design is a "science stopper." But as Lewis made clear, it would be more correct to say that intelligent design is a science *starter*. "Men became scientific because they expected Law in Nature," wrote Lewis, "and they expected Law in Nature because they believed in a Legislator"—a.k.a. an intelligent designer. Thus, if people are concerned about the future progress of science, they should be worried about the abandonment of intelligent design by the scientific community: "In most modern scientists this belief [that behind nature is a Legislator] has died: it will be interesting to see how long their confidence in [the] uniformity [of nature] survives it... We may be living nearer than we suppose to the end of the Scientific Age."⁴⁸

4. Intelligent design is simply an argument for God.

CRITICS TYPICALLY insist that modern intelligent design theory is simply an argument for God. However, as already explained, contemporary intelligent design theorists maintain that their version of the design argument is considerably more limited. In their view, evidence of design in nature may be enough to establish a purposeful cause for nature, but it does not answer all questions, such as the problem of evil, and so it cannot establish the existence of an all-wise, all-good, and all-powerful supernatural being taken by itself. Here is where Lewis's concern about the "argument from undesign" actually weighs in favor of the contemporary version of the design argument. Lewis essentially supports the more humble position of modern design theorists like Michael Behe and

William Dembski that evidence for design can refute materialism, but standing alone it is not enough to establish Christian theism.

5. Intelligent design is demeaning to God.

ALTHOUGH THE argument for intelligent design within science is not enough to establish the existence of God, it certainly has implications for those who already believe in God. If one happens to be a theist, it is natural to attribute the design of the world to God. But some theistic critics of intelligent design have taken to arguing that it is demeaning to God or nature to view God as a designer because then nature becomes somehow mechanical or God becomes merely an engineer. To those who make this argument, perhaps the best reply may be a single question asked by Lewis: “Would you make God less creative than Shakespeare or Dickens?”⁴⁹ God is certainly more than a designer. But do we dare contend that He is less? And the works of Shakespeare are certainly the products of intelligent design, but surely that does not make them mechanical or less beautiful.

6. Intelligent design is philosophy, not science.

ANOTHER ARGUMENT frequently employed to refute intelligent design is that it is “philosophy, not science.” This argument is typically used to shut down conversations about the scientific evidence for intelligent design; but it also is typically applied inconsistently. Darwinian theory purports to provide scientific evidence that life is the product of an un-directed process rather than intelligent design. Is *that* claim scientific? If it is, then so is intelligent design, because it purports to provide scientific evidence that bears on the very same question addressed by Darwinism—whether life is the product of a guided or unguided process. If it is scientific for supporters of Darwin’s theory to offer empirical evidence and arguments *against* intelligent design, it should be equally scientific for supporters of intelligent design to offer empirical evidence and arguments in *favor* of intelligent design. Of course, perhaps Darwinian theory itself is philosophy rather than science, and then in that case perhaps intelligent design is too. But in either case, isn’t the real issue

determining what the truth actually is? Rather than trying to decide the debate over intelligent design by drawing arbitrary lines between science and philosophy (something notoriously difficult to do), why not focus on what evidence and logic actually show? At the basis of the “philosophy, not science” objection is the assumption that scientific and philosophical reasoning are two very different things that can never be mixed (there is usually an additional assumption as well on the part of scientists that scientific reasoning is superior to philosophical reasoning). Lewis provided a helpful corrective here, because he forcefully argued against the idea that scientific reasoning is substantially different (or better) from other kinds of reasoning. Contending that “the distinction... made between scientific and non-scientific thoughts will not easily bear the weight we are attempting to put on it,”⁵⁰ Lewis noted that “[t]he physical sciences... depend on the validity of logic just as much as metaphysics or mathematics.” Thus, “[i]f popular thought feels ‘science’ to be different from all other kinds of knowledge because science is experimentally verifiable, popular thought is mistaken... We should therefore abandon the distinction between scientific and non-scientific thought. The proper distinction is between logical and non-logical thought.”⁵¹ Applied to the modern debate over intelligent design, Lewis’s point means that the debate cannot be decided by drawing arbitrary lines between science and other disciplines.

7. Intelligent design is anti-science because it violates the scientific consensus.

INTELLIGENT DESIGN is frequently attacked as “anti-science,” a charge that usually is based on no more than the bare fact that intelligent design proponents disagree with key parts of Darwinian theory. Since Darwinian theory is the “consensus view of science,” challenging it makes one “anti-science.” QED. The ridiculousness of this argument has been addressed already: If one follows the logic to its conclusion, Darwin himself would have to be declared anti-science for challenging the scientific consensus of his own day. So would Galileo. So would Einstein. As pre-

viously discussed in chapters 1, 4, and 6, Lewis provides an antidote to this kind of complaint by pointing out that the science of any given era may be driven more by larger cultural attitudes than the weight of the evidence. Lewis also had a keen appreciation for the radical changeability of science.⁵² Thus, scientific beliefs cannot be regarded as sacrosanct, and those who challenge them should not be regarded as enemies of science any more than those who challenge at elections the existing party in control of government should be regarded as enemies of representative democracy. What is required in science is a robust exchange of ideas, not efforts to suppress legitimate debate. Hence, it is not an adequate refutation of intelligent design (or any other idea) to label it “anti-science” merely because it challenges the existing consensus.

FOLLOWING THE ARGUMENT WHEREVER IT LEADS

C. S. LEWIS WAS A literary scholar, not a scientist, and so he did not feel it was his place to enter too deeply into the scientific debates of his own era. He also cautioned Christians about relying too heavily on the findings of science for their apologetics. After all, the findings of science are in a constant state of flux. At the same time, as C. John Collins explained in chapter 5, Lewis was willing to draw on the insights of science in his own apologetics. Perhaps more importantly, Lewis urged Christians with a scientific aptitude to keep up with the science of their day because “[w]e have to answer the current scientific attitude towards Christianity, not the attitude which scientists adopted one hundred years ago.” He further encouraged Christians to write books about science that would counter the materialist worldview implicitly by presenting “perfectly honest” science.⁵³

Most important of all, Lewis was a consistent champion of following an argument wherever it might lead, without placing artificial barriers to the consideration of new ideas. Many people do not realize just how much Lewis modeled this principle in his own life, or how he encouraged students to adopt the credo as their own. A good example is his role in founding the Socratic Club at Oxford University. From 1942 until he

left for Cambridge University in 1954, Lewis served as President of the club, a weekly gathering of students and scholars devoted to living out the injunction of Socrates to “follow the argument wherever it led them,” especially in debating the truth or falsity of Christianity.⁵⁴ “We never claimed to be impartial,” remembered Lewis. “But argument is. It has a life of its own. No man can tell where it will go.”⁵⁵

The Oxford Socratic Club likely had a profound effect on many students, but no more so than on one regular attendee who later recalled that “the Socratic principle I saw exemplified there—of following the evidence wherever it may lead—increasingly became a guiding principle in the development, refinement, and sometimes reversal of my own philosophical views.”⁵⁶

The attendee in question was a young Antony Flew, who went on to play an important role in legitimizing the contemporary debate over intelligent design. Eventually becoming one of the most noted atheist philosophers in academia, Flew startled the world in 2004 by publicly renouncing his atheism in favor of a belief in God (although not Christianity).⁵⁷ Following the credo he had seen embodied by Lewis’s Socratic Club, Flew had continued to follow the evidence until it led him to a complete change of mind.

Flew credited new scientific evidence for intelligent design as a key reason for his conversion. As he told one interviewer in 2004, “I think the argument to Intelligent Design is enormously stronger than it was when I first met it.”⁵⁸ Flew’s reading had included books by intelligent design theorists Michael Behe and William Dembski, and he was especially influenced by the argument for design based on the biological information encoded in DNA.⁵⁹

In the end, Lewis’s greatest contribution to the intelligent design debate may have been his steadfast insistence to Flew—and many others—that they should pursue an argument wherever it might lead. That insistence inspired Flew to consider seriously new evidence for intelligent design despite the prejudices of the existing intellectual establishment. And the evidence changed his mind.

As Lewis said, an argument “has a life of its own. No man can tell where it will go.”

ENDNOTES

1. C. S. Lewis, *Spirits in Bondage: A Cycle of Lyrics*, edited by Walter Hooper (San Diego: Harcourt Brace & Co., 1984); also available online at <http://www.gutenberg.org/ebooks/2003>, accessed June 23, 2012.
2. “I: Satan Speaks,” *ibid.*, 3.
3. C. S. Lewis, *Surprised by Joy* (New York: Harcourt Brace Jovanovich, 1955), 65.
4. *Ibid.*
5. Pascal, quoted in C. S. Lewis, *The Problem of Pain* (New York: Macmillan, 1962), 13.
6. Lewis to Dom Bede Griffiths, Dec. 20, 1946, in *The Collected Letters of C. S. Lewis* (San Francisco: HarperSanFrancisco, 2004), vol., II, 747.
7. Lewis, *Surprised by Joy*, 65.
8. The phrase is Tennyson’s, but one can hear echoes of it in Lewis’s poem “Ode for New Year’s Day”: “For Nature will not pity, nor the red God lend an ear.” C. S. Lewis, “VIII: Ode for New Year’s Day,” *Spirits in Bondage*, 14. For Tennyson’s line see “In Memoriam A. H. H.” (1850), Canto 56, accessed June 25, 2012, <http://www.online-literature.com/donne/718/>.
9. See Lewis, *Surprised by Joy*, 7, 16, 152–158. What I am describing here as the argument from natural beauty is one part of Lewis’s larger argument from “joy.” For a helpful overview of the development of this argument, see Kathryn Lindskoog, *Finding the Landlord: A Guidebook to C. S. Lewis’s Pilgrim’s Regress* (Chicago: Cornerstone Press, 1995), xiii–xxv; also see Lewis, “Surprised by Joy;” Lewis, “The Weight of Glory,” in C. S. Lewis, *The Weight of Glory and Other Addresses*, revised and expanded edition, edited by Walter Hooper (New York: Macmillan, 1980), 3–19.
10. “XXVI: Song,” Lewis, *Spirits in Bondage*, 50.
11. See Lewis to Dom Bede Griffiths; C. S. Lewis, “De Futilitate,” in *Christian Reflections*, edited by Walter Hooper (Grand Rapids, MI: Eerdmans, 1967), 65–67, 69–70.
12. See C. S. Lewis, *Miracles: A Preliminary Study*, 1960 edition (New York: Macmillan, 1978), especially, 12–24; Lewis, “De Futilitate,” 57–71; Lewis, “Religion without Dogma?” in *God in the Dock*, edited by Walter Hooper (Grand Rapids: Eerdmans, 1970), 129–146.
13. C. S. Lewis, “Is Theology Poetry?” in *The Weight of Glory and Other Addresses*, revised and expanded edition (New York: Macmillan, 1980), 90; also see C. S. Lewis, “Modern Man and His Categories of Thought,” *Present Concerns*, edited by Walter Hooper (New York: Harcourt Brace Jovanovich, 1986), 63–64.
14. Lewis, “Is Theology Poetry?,” 90.
15. Lewis, “Two Lectures,” *God in the Dock*, 211.
16. Lewis, “Is Theology Poetry?,” 91.
17. *Ibid.*
18. Michael L. Peterson, “C. S. Lewis on Evolution and Intelligent Design,” *Perspectives on Science and the Christian Faith* 62, no. 4 (December 2010): 253–266; Michael L. Peter-

- son, "C. S. Lewis on Evolution and Intelligent Design," www.biologos.org (April 2011), accessed May 18, 2012, http://biologos.org/uploads/projects/peterson_scholarly_essay.pdf.
19. Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), 255.
 20. C. S. Lewis, *The Voyage of the Dawn Treader* (New York: Macmillan, 1952), 133.
 21. Michael Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York: Free Press, 1996); William Dembski, *Intelligent Design: The Bridge Between Science and Theology* (Downers Grove, IL: InterVarsity, 1999). In contrast to Peterson's outdated citations to books and articles by intelligent design proponents, he cites several books from recent years attacking intelligent design. See Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), note 13, 265.
 22. Stephen C. Meyer, *Signature in the Cell: DNA and the Evidence for Intelligent Design* (New York: HarperOne, 2009). In the BioLogos version of Peterson's article, the inaccurate reference to Meyer's book has been corrected.
 23. Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), 254.
 24. James E. Horigan, *Chance or Design?* (New York: Philosophical Library, 1979); Charles B. Thaxton, Walter L. Bradley, and Roger L. Olsen, *The Mystery of Life's Origin* (Dallas: Lewis and Stanley, 1992 [second printing]); Michael Denton, *Evolution: A Theory in Crisis* (Bethesda, MD: Adler and Adler, 1985).
 25. See Jonathan Witt, "A Brief History of the Scientific Theory of Intelligent Design," accessed June 23, 2012, <http://www.discovery.org/a/3207>.
 26. Michael Behe, "The Modern Intelligent Design Hypothesis," *Philosophia Christi*, 3, series 2, no. 1 (2001): 165.
 27. Dembski, *Intelligent Design: The Bridge Between Science and Theology*, 248.
 28. Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), 256.
 29. *Ibid.*, 254.
 30. *Ibid.*
 31. For discussion of these arguments by scholars supporting intelligent design, see Guillermo Gonzalez and Jay Richards, *The Privileged Planet: How Our Place in the Cosmos is Designed for Discovery* (Washington, D.C.: Regnery, 2004), and Stephen Meyer, "A Scientific History and Philosophical Defense of the Theory of Intelligent Design" (2008), accessed June 25, 2012, <http://www.discovery.org/a/7471>.
 32. Dembski, *Intelligent Design: The Bridge Between Science and Theology*, 250.
 33. Behe, *Darwin's Black Box*, 5.
 34. Answer to the question "Is intelligent design theory incompatible with evolution?," *Top Questions*, accessed June 25, 2012, <http://www.discovery.org/csc/topQuestions.php>.
 35. For documentation of the fact that Darwinian evolution is supposed to be unguided and lacking in foresight, see discussion in chapter 6 in addition to West, *Darwin's Conservatives: The Misguided Quest* (Seattle: Discovery Institute Press, 2006), 13–17; and West, "Nothing New Under the Sun: Theistic Evolution, the Early Church, and the Return of Gnosticism, Part 1," in Jay Richards, editor, *God and Evolution: Protestants, Catholics, and Jews Explore Darwin's Challenge to Faith* (Seattle: Discovery Institute Press, 2010), 38–40.

36. Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), 259.
37. Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), 257, 259.
38. Meyer, *Signature in the Cell*, especially 150–172, 324–348; and Meyer, "A Scientific History," 11–17.
39. Meyer, "A Scientific History," 27–28; also see Wells, "Darwin of the Gaps," *God and Evolution*, 121–122.
40. Wells, "Darwin of the Gaps," 128.
41. See Casey Luskin, "Vestigial Arguments about Vestigial Organs Appear in Proposed Texas Teaching Materials," *Evolution News and Views*, June 20, 2011, accessed May 19, 2012, http://www.evolutionnews.org/2011/06/vestigial_arguments_about_vest047341.html; David Klinghoffer, "Looks Like the Appendix Isn't a 'Junk Body Part' After All," *Evolution News and Views*, Jan. 4, 2012, accessed May 19, 2012, http://www.evolutionnews.org/2012/01/now_its_the_app054761.html; Jonathan Wells, *The Myth of Junk DNA* (Seattle: Discovery Institute Press, 2011).
42. Kathryn Applegate, "Self-Assembly of the Bacterial Flagellum: No Intelligence Required," *The BioLogos Forum*, August 19, 2010, accessed June 23, 2012, <http://biologos.org/blog/self-assembly-of-the-bacterial-flagellum-no-intelligence-required/>.
43. Meyer, *Signature in the Cell*.
44. Lewis, "Is Theology Poetry?," 90–91.
45. Lewis, "The Funeral of a Great Myth," *Christian Reflections*, 90.
46. Lewis, "Two Lectures," 211.
47. Lewis, *Miracles*, 58–59.
48. *Ibid.*, 106.
49. *Ibid.*, 65.
50. Lewis, "De Futilitate," 61.
51. *Ibid.*, 62.
52. Lewis, "Christian Apologetics," *God in the Dock*, 92; Lewis, *The Discarded Image* (Cambridge: Cambridge University Press, 1964), 219–223.
53. Lewis, "Christian Apologetics," 93.
54. "The Founding of the Oxford Socratic Club," *God in the Dock*, 126.
55. *Ibid.*, 128.
56. Antony Flew with Roy Abraham Varghese, *There Is a God* (New York: HarperOne, 2007), 42.
57. "Lifelong Atheist Changes Mind about Divine Creator," *The Washington Times*, Dec. 9, 2004, accessed June 25, 2012, <http://www.washingtontimes.com/news/2004/dec/9/20041209-113212-2782r/?page=all>.
58. Antony Flew interview with Gary Habermas for the journal *Philosophia Christi* (Winter 2004), accessed June 25, 2012, <http://www.biola.edu/antonyflew/page2.cfm>.
59. Gene Edward Veith, "Flew the Coop," *World*, Dec. 25, 2004, accessed June 25, 2012, <http://www.worldmag.com/articles/10094>. In addition to Behe and Dembski, Flew was heavily influenced by intelligent-design-friendly physicist Gerald Schroeder. On the design implications of DNA, he cited an article by Discovery Institute Senior Fel-

low David Berlinski. See Flew, *There Is a God*, 127. It should be noted that Michael Peterson in his article wrongly implies that Flew's conversion was either not connected to intelligent design or even hostile to it. Michael Peterson, "C. S. Lewis on Evolution and Intelligent Design" (2010), 255, 259.