1

The Contemporary Scene

The time has come to examine the state of affairs between science and theology with a degree of candor heretofore lacking. The last sixty years have witnessed a virtual explosion of interest in how modern science and traditional Christianity intersect. Standing as we do in the twenty-first century, we can declare that the classical warfare between theology and science is a leftover from a bygone era. At the same time a new atheism has arrived with its biting criticism of all things religious. And while the combative nature of this new atheism has stolen the headlines, just as the ongoing controversy about intelligent design has muddied the water, we are feeling the ground beneath our feet shifting with the emergence of new disciplines, such as evolutionary biology and evolutionary anthropology. The results of ground-breaking research into the origins of religion, morality, and human nature greatly enrich and expand the conversation as we have known it. In addition, there is an unexpected turn of events among Evangelicals who desire to hew out their own reconciliation with science. Replacing the negative attitude toward empiricism as undermining Christian faith is a positive effort to accommodate science and incorporate empirical evidence, even when it cuts across the grain of traditional beliefs. As these forces converge, the time is right to examine the state of affairs between science and theology as it now unfolds, and to render a critical but friendly assessment of where we are and how we might move forward.

We should be forewarned that we probably hold a variety of misconceptions about the nature of that "warfare."[1] A closer examination of the

1. See the variety of essays from a variety of disciplines (sociology, history, science, theology) in Harold W. Attridge, ed., *The Religion and Science Debate: Why Does It Continue?* (New Haven, CT: Yale University Press, 2009).

American scene reveals a more complex picture and the most egregious fault is the neglect of what I choose to call the new rapprochement (NR) between science and theology. By their creative and positive approach toward empiricism, we rightly associated Alfred North Whitehead and Teilhard de Chardin with charting a new course. As their influence waned another generation of scientist-theologians associated with Ian Barbour, Arthur Peacock, and John Polkinghorne moved to the fore in the 1950s and '60s. Succeeding them is a new generation of scholars who represent a broad spectrum of disciplines and who write, as I do, from within a long-standing theological tradition that has nothing to fear from a scientific perspective; a tradition that has been wrestling with, challenged by, and learning from science. Their model of rapprochement is now an established fact of life in our colleges and universities, seminaries, and publications.

The American landscape is unique for a number of reasons, no less than the fact that theology and science have coexisted in a contentious manner that is not necessarily true for Europe. The very diversity of religious denominations and sects compounds the problem of relying on generalities. An accurate assessment requires us to take into account a diversity of perspectives. At the very least they include Protestant, Evangelical, and Roman Catholic. In addition, because it has attracted so much public attention, the emergence of a new atheism must be mentioned, and this is where I start.

The New Atheism

There are ubiquitous signs that the gloves are finally coming off between the new atheists and the established apologists for Christian faith. A forum held in November of 2006 at the Salk Institute for Biological Studies in La Jolla, California, turned into an opportunity to tell it like it is. With an attendance of well-known scientists, along with fewer defenders of the faith, and even fewer believing scientists, religion took a beating. One speaker after another called on fellow scientists to openly challenge the irrationality of religious belief. Steven Weinberg, who famously finished his 1977 book on cosmology, *The First Three Minutes*, with the words that "the more the universe seems comprehensible, the more it also seems pointless," went a step further, saying, "Anything that we scientists can do

to weaken the hold of religion should be done and may in the end be our greatest contribution to civilization."[2]

One reason for this abrupt change is not difficult to discern. Since September 11, 2001 and the terrorism that followed, religion has been scrutinized like never before. Apart from the political ramifications, the American public was stunned by the idea that such atrocities could be motivated by religious ideals. I remember very well the evening National Public Radio aired a program that debated whether religion, overall, did more good or more harm. It wasn't just Islam that found it necessary to defend itself; Christianity also found itself so compelled.

Not only is religion being measured and found wanting, a strategy is being employed to make believers look foolish and dangerous, and the scalpel being used is religion's failure to measure up to the standards of scientific inquiry. In *The End of Faith,* Sam Harris finds new ways to provoke the religiously minded. "Religious beliefs," he writes, "are simply beyond the scope of rational discourse."[3] Thus he strikes a common note. A postmodern atheism not only wants the gloves to come off, it wants to portray religion as unhealthy, irrational, delusional, and predatory. One could read the new atheism as a postmodern update of David Hume's project of a natural history of religion or even William James's study of religion as a variety of mystical experiences. But there is a difference because James belonged to a tradition epitomized in the Gifford Lectures and dedicated to interdisciplinary discourse.[4] The new atheism, on the other hand, wants to use science against religion as evidenced by such books as *God: The Failed Hypothesis, How Science Shows that God Does Not Exist* by Victor Stenger, or the offering of literary critic and intellectual contrarian Christopher Hitchens, *God is Not Great: How Religion Poisons Everything*. With an evangelical faith of their own, these contemporary atheists/agnostics clearly believe faith in God is an evolutionary adaptation that has outlived its usefulness. Thus, added to the stock arguments about religion being a human projection (Feuerbach) of some inner emotional need (Freud) is the implication that religion emanates from a childish lack of courage to see life and the world as it actually is.

2. George Johnson, "A Free-for All on Science and Religion," *New York Times*, November 21, 2006.

3. Sam Harris, *The End of Faith* (New York: W. W. Norton, 2005), 13.

4. For an insightful account of the Gifford Lectures see Witham, *The Measure of God.*

No survey of the contemporary scene would be complete without mentioning two highly respected scientists who also write for the general public. Daniel C. Dennett, the American-born cognitive scientist, is well known for a number of best-selling books that are both very lucid and controversial. The publications of *Darwin's Dangerous Idea* (1996) and *Breaking the Spell: Religion as a Natural Phenomenon* (2007) stand as bookends to a consistent argument. Charles Darwin's dangerous idea was natural selection but that in itself was not the tipping point. From the day of its publication in 1859, *On the Origin of the Species By Means of Natural Selection* raised the possibility that nature's design is simply the outcome of a natural process of selecting the fittest species. Quite intentionally, in order to avoid a distracting ruckus, if not outright rejection of this theory of evolution, Darwin did not press the implications of descent by natural selection. Dennett, though, relishes the task of showing that no intelligent designer is needed in order to explain how life began and how it evolved. Darwin was himself a self-confessed agnostic, unsure about the existence of a benevolent, omnipotent God or what role God plays in creating the universe. In his own words Darwin writes, "I gradually came to disbelieve in Christianity as a divine revelation. . . . Thus disbelief crept over me at a very slow rate, but was at last complete."[5] Dennett, on the other hand, forthrightly eliminates any reliance on a preexisting Mind or "skyhook" explanations used to grasp the seemingly unexplainable. In *Breaking the Spell* Dennett takes the next logical step, at least from his perspective, and urges "a forthright, scientific, no-holds-barred investigation of religion as one natural phenomenon among many."[6] Religion then is its own dangerous idea, for it provides nothing that is particularly unique or valuable.

Casting an even wider purview, historian of science David Hull clarifies the resultant collapse of four towering constructs supporting a theistic world view: the primacy of the *inductive method* along with the value of intuition and inspiration; the presence of unobservable *occult qualities*, such as Aristotle's four humors, vital forces, and even Newton's action at a distance (until proven after his death); *teleology* or the belief that things in the natural world "seek" to attain their given *purpose*; and

5. *The Autobiography of Charles Darwin*, 72. See also the introduction by David Quammen, who nicely summarizes Darwin's belief or lack of it, *Charles Darwin On the Origins of Species, The Illustrated Edition* (New York: Sterling, 2008), viii.

6. Daniel C. Dennett, *Breaking the Spell: Religion as a Natural Phenomenon* (New York: Viking, 2006), 17.

faith in the existence of ideal types or *essences*, which are static, immutable, and divinely created. Together these paradigms constituted a world view that science dismantled, slowly but steadily eliminating God as a casual explanation.[7]

Evolutionary biologist par excellence Edward O. Wilson has his own bookend publications that frame the issue as he sees it. Beginning with *Sociobiology: The New Synthesis* (1975) and amplified in *Consilience: The Unity of Knowledg*e (1998), Wilson extols the virtues of scientific knowledge.[8] There is nothing conciliatory in his proposal since consilience has the goal of transforming as much philosophy and theology as possible into science.[9] Even when it comes to ultimate questions, science should rule since "theology, which long claimed the subject for itself, has done badly."[10] Wilson's elevation of science to the queen of all knowledge is echoed by Sam Harris, who has no use for religion because it does not measure up to the rigor of natural science, and Peter Singer, along with Paul Bloom, who believes we would be better served by objective normative truths.[11] What all of these writers have in common is little or no awareness of a Christian theological tradition that has been informed and shaped by modern science, that is, the NR described in this book, and the even longer tradition of a self-critiquing faith (see below).

The emergence of a few prominent voices who take religion to task for being juvenile, foolish, and irresponsible does not mean that they are have nothing valid to say, but for one important reason they miss their mark. They criticize religion for being unscientific, that is, religious belief lacks empirical standards and therefore cannot be counted as a source of legitimate knowledge. Apologists for Christianity routinely deflect this criticism by pointing out that religion and science address very different questions and serve very different purposes. Not incidentally, more than one prominent scientist has made the very same argument. Albert Einstein, no less, is remembered for his statement that connects science and religion when they each play out their defined role: "Science without religion is lame, religion without science is blind." The same sentiment was

7. Hull, *Darwin and His Critics*, Part I.

8. Wilson reiterates the same attitude concerning the superiority of science in his more recent *The Social Conquest of Earth*, 292-95.

9. Edward O. Wilson, *Consilience* (New York: Vintage, 1998), 12.

10. Ibid., 294.

11. Peter Singer, *The Expanding Circle* (Princeton, NJ: Princeton University Press, 2011) and Paul Bloom, *Descartes' Baby* (New York: Basic, 2004).

expressed by a more contemporary scientists of enormous stature, Freeman Dyson, in his acceptance speech as recipient of the 2000 Templeton Prize for Progress in Religion. "Science and religion are two windows that people look through, trying to understand the big universe outside, trying to understand why we are here. The two windows give different views, but they look out at the same universe. Both views are one-sided, neither is complete. Both leave out essential features of the real world. And both are worthy of respect."[12]

Adding confusion across the spectrum is the careless pairing of religion with science rather than theology with science. By taking the former route, all sorts of accusations can be made since by its very nature religion is not driven by a search for objective, normative truths. Religion bashing is relatively easy compared to a disciplined conversation between informed scientists and informed theologians, informed that is by both disciplines simultaneously. It is curiously telling that the new atheists prefer to engage a religion that is little more than a literal reading of its sacred texts. How convenient to ignore the substantial engagement between theology and science that accompanied the emergence of a modern science, not to mention the most recent engagement of a postmodern theology with a postmodern science (see chapter 2). What the new atheists do accurately reflect is the secularization of modern thought and life. The noted Canadian philosopher Charles Taylor depicts the story line of secularization in this way:

> Once human beings took their norms, their goods, their standards of ultimate value from an authority outside themselves; from God, or the gods, or the nature of Being or the cosmos. But then they came to see that these higher authorities were their own fictions, and they realized that they had to establish their norms and values for themselves, on their own authority.[13]

Secularization and modern science are, to be sure, major hurdles for religious beliefs, but the questions they pose must be addressed by the reasoned thought processes of individuals equipped to think both theologically and scientifically.

While newspaper headlines are adequate for capturing the public's attention, they obscure what is actually happening and what really

12. Freeman Dyson, "Progress in Religion" (Templeton Prize for Progress in Religion acceptance speech, Washington National Cathedral, Washington, D.C., May 16, 2000).

13. Taylor, *A Secular Age,* 580.

matters. Unless you read past the headlines about Stephen Hawking's inference that the universe might not need a grand designer (*The Grand Design*, 2010), you are unaware of a disciplined approach to the kind of questions astronomers and physicists have been posing since Ptolemy and Copernicus, Newton and Descartes. Out of the limelight of newspaper headlines and the hyped controversy over intelligent design is a revolution in how scientists understand why religious belief is so fundamental and universal in the evolution of our species. In many ways the standard conceptions we have of human nature have been turned on their heads. The received idea that we are born a to be molded by culture or that we are born with overriding instincts for self-preservation is being overturned. Displacing "red in tooth and claw" depictions is a view of evolution benefited by altruism, cooperation, moral conscience, and belief in a supernatural being or beings. Hot off the presses are major titles, such as *The Age of Empathy* by the well-known primatologist Frans de Waal, *The Better Angels of Our Nature* by the influential Harvard Professor of Psychology Steven Pinker, *Why We Cooperate* by the esteemed evolutionary anthropologist Michael Tomasello, and *Born Believers* by Justin L. Barrett, a research associate at Oxford's Center for Anthropology. And in a major interdisciplinary contribution of three volumes, Maxine Sheets-Johnstone ranges across the humanities and sciences to offer an in-depth analysis of the most fundamental roots of thinking, power, and morality.[14]

Two lines of thinking have emerged to explain the origins of religious belief. The first seeks to find in our distant past the adaptive or survival reasons why it might be advantageous to believe in the supernatural. The focus here has been on altruism and cooperation because these two traits, even though they may be of little value to the individual, might well serve the survival of a group. A diversity of religious traits could have benefits for the survival of a community that is cohesive and fiercely loyal. David Sloan Wilson, an evolutionary biologist at the State University of New York at Binghamton, builds his case that religion is best understood as a living organism with complex adaptive features (*Darwin's Cathedral*, 2002). The cost of holding admittedly counterintuitive beliefs—that Mary is both a mother and a virgin and so forth—can be outweighed by the benefits of being part of a cohesive group that

14. Maxine Sheets-Johnstone, *The Roots of Thinking* (1990), *The Roots of Power* (1994), *The Roots of Morality* (2008). All University Park, PA: Penn State University Press.

out-competes the others. Who is to deny that a symbolic belief system that departs from factual reality may also enhance group fitness in the long run? (Remember Durkheim's claim that human social life is only possible when a system of symbolism is present.)

A second and growing trend among scientists is a view that religion emerged by accident. Here religion is seen as a by-product of biological adaptations gone awry. Displacing "God is Dead" headlines is the eye-catching question, "Is God an Accident?"[15] During the struggle to survive humans acquired the ability to distinguish the world of objects from the world of minds and learned the best way to respond to each. The latter required a higher level of sophistication and abstraction, including the reading of minds (the intentions of another person), the belief in spirits to explain certain phenomena, the doctrine of the soul as a solution to the problem of death, and belief in a benevolent God ready to hear and answer the prayers of those who have nowhere else to turn. The propensity to posit the existence of minds, our own and the omniscient, is the basis for belief in immaterial souls and a transcendent God. These universal themes of religion, Bloom argues, emerged as accidental by-products of our mental systems, and this leads him to conclude that religion and science will always clash.

Both lines of thinking, nevertheless, lead to the same conclusion that religion can be explained away. When Pascal Boyer writes about the human instincts that fashioned religious belief, he titles his book *Religion Explained* (2001). That in a nutshell is what the natural sciences intend to achieve: a naturalistic explanation of all things religious, utilizing a methodology that excludes supernatural explanations. Darwin, it could be said, was doing much the same thing by explaining the origin of religion and morality as noteworthy, though not necessarily as unique events in the evolutionary history of human life, but he stopped far short of the naturalistic explanation provided by the modern utilization of the tools of biology, genetics, evolutionary psychology, paleontology, anthropology, and primatology.[16] With good reason E. O. Wilson bluntly summarizes the situation in this way:

15. Bloom, "Is God an Accident?," *Atlantic Monthly*, 105–12. Cf. Rodney Stark and Roger Finke, *Acts of Faith: Explaining the Human Side of Religion* (Berkeley, CA: University of California Press, 2000); Scott Atran, *In Gods We Trust: The Evolutionary Landscape of Religion* (Oxford: Oxford University Press, 2002); and Justin Barrett, "Exploring the Natural Foundations of Religion," *Trends in Cognitive Science* 4 (January 2000) 29–34.

16. See Darwin's chapter 4 of *Origins of Species*.

> The Armageddon in the conflict between science and religion (if I may be allowed so strong a metaphor) began in earnest during the late twentieth century. It is the attempt by scientists to explain religion to its foundations—not as an independent reality within which humanity struggles to find its place, not as obeisance to a divine Presence, but as a product of evolution by natural selection. At its source, the struggle is not between people but between world views.[17]

Liberal Protestant Theology

Since Luther's decision in 1517 to challenge the Pope and Catholic doctrine about a good many matters, protest has been in the blood of Protestants. On the negative side, Protestants have sacrificed unity for independence, resulting in the individual's right to protest and question, even to establish new denominations. On the positive side, a spirit of *ecclesia semper reformanda est* ("the church is always to be reformed") permitted and encouraged an open discussion regarding what is true and essential regarding Christian faith. And even though Protestants looked to the Bible as the final court of last resort (*sola scriptura*), even the Scriptures were subject to the most searching analysis. A century or more later my own ministerial education at Princeton Theological Seminary included a thorough reading of Albert Schweitzer (*The Historical Jesus*, 1910) and champion of form criticism Rudolf Bultmann (1884–1976) for they were considered to embody the very same tradition of critical thinking that inspired the Reformation. It is important, then, to think of liberal Protestantism (Reformation theology) as a self-critiquing expression of Christian faith. In a best-selling primer for Christians, professor Daniel Migliore of Princeton Seminary reminds us of the classical definition of theology as *fides quaerens intellectum* ("faith seeking understanding"—Anselm), and thus "theology is faith asking questions and struggling to find at least provisional answers to these questions."[18]

Liberal Protestants made their peace with science easily enough. When the scientific method began to require a weighing of the evidence, a critical mind-set explained why both clerics and laymen delighted in discovering for themselves the intelligent design of a world they had

17. Wilson, *Social Conquest,* 255.

18. Migliore, *Faith Seeking Understanding,* 2.

taken for granted. And there was little to fear about where the evidence would lead since it could only open a door to understanding the universe God created. Nevertheless, over time an unresolved tension persisted because scientific evidence could not always be interpreted as leading back to an omnipotent and omniscient Creator. As science proceeded to discover a universe of indifference and chance, open-minded believers did not abandon empiricism per se, for the methodology proved itself to be fruitful beyond all expectations. The answer seemed to be one of accommodation. Theologians would work on reinterpreting Scripture and the history of how we understand God. After all, it was not a history of interpretation and understanding set in stone. It was, as would always be the case, that the ineffable One should be understood developmentally, as humans themselves evolved. In a postmodern context one understands knowledge to be historically conditioned, and so the challenge for liberals is to honor faith and revelation as a way of knowing what transcends the boundaries of what is finite and observable.

Protestant liberal theology is distinguished by its use of the critical historical method. Coming to the fore in the middle of the eighteenth century and the nineteenth century with Jean-Jacques Rousseau, a liberal tradition flowered at the hands of Lessing, Kant, Herder, Novalis, Hegel, Schleiermacher, Feuerbach, Strauss, and Ritschl.[19] The engine driving this liberal tradition is a critical spirit regarding all matters of truth but especially the historical texts so important to Christianity. It is a mind-set of looking behind the obvious, behind the literal reading, into how the text was constructed, and what the text's history and origins were. One important consequence of the critical historical method was to shift the locus of faith away from the metaphysical categories of scholasticism to the personal, redemptive-history characteristic of Protestantism.[20] Theology became primarily exegesis, and historical exegesis at that, and this served to orient Protestant theology toward the Darwinian insight that everything has a developmental history.

It would be difficult to underestimate the importance of the link between appropriating a historical critical methodology and adopting a modern consciousness, for the outcome was to swing liberal

19. By no means the only valuable analysis of this period, Karl Barth, *Protestant Thought from Rousseau to Ritschl* (New York: Harper & Row, 1952) remains an outstanding contribution.

20. This is the conclusion of Gerhard Ebeling, "The Significance of the Critical Historical Method," 31–36.

Protestantism into the orbit of modern science. It becomes perfectly understandable why Protestant theology does not have a history of fighting against modern science when it was trying to be scientific itself. A decisively modern consciousness would include the historical character of human truth, the knower as a disengaged autonomous self, the standard of reasonable evidence, the rejection of supernatural explanations, the preference for induction over deduction, and, to quote Charles Taylor, the willingness to "resist the comforting illusions of earlier metaphysical and religious beliefs, in order to grasp the reality of an indifferent universe."[21] Nevertheless, Protestant theology found itself in the awkward position of striving to be empirically grounded while not exactly measuring up to the empirical standards demanded of a natural science, and this, in part, was a matter of making an intentional choice. There never has been a natural fit between the humanities and the physical sciences, and Protestantism, beginning with Luther, has been leery of conceding too much to the power of reason. Sociologist and theologian Jacques Ellul writes unsparingly, "My affirmation is that the rationality of technique and all human organization plunges us into a world of irrationality and that technical rationality is enclosed in a system of irrational forces."[22] And therein lies the conundrum of Protestant liberalism, namely, how to demonstrate a modern consciousness, including an uncompromising use of empirical evidence, while being faithful to its tradition of questioning all aspects of human aspiration to claim for ourselves an objective, untainted truth

The Evangelical Turnaround

The declaration that religion and science are no longer at war has been reiterated to the point of not only being trivial but obscurantist. The notion that religion and science are at war with each other stems in part from a book written by John William Draper in 1874, *History of the Conflict between Religion and Science*. The book was not so much a history as a crusade to liberate scientific rationalism from the grip of Christian dogma (Roman Catholic dogma in particular). In 1896 Andrew Dickson White, the president of Cornell University, published a more restrained offering, *History of the Warfare of Science with Theology in Christendom*.

21. Taylor, *A Secular Age,* 574.

22. Ellul, *The Technological Bluff,* 170.

While their motives for writing their books were quite different, they both derided the intrusion of religious beliefs into the work of scientific progress and projected a cultural war between revealed religion and scientific rationalism. Even then the unfortunate categorization of two enemies at war with each other was not an accurate depiction of the complexity of the views held by most clergy and professional scientists.[23] Some may think the "war" continues, fueled by a new form of conservatism verging on fundamentalism, and that this is what leads us to the contemporary debate between creationists and the scientific establishment.[24] And to the extent that one chooses to categorize this controversy as "war," it seems to be a dead end because neither side is likely to convert the other. Way too much ink and energy has been spent arguing about intelligent design, and it is quite possible that the fury and flurry around intelligent design has blinded us to the ground swell that is, and will be, the locus of what matters.

Whether evidenced by the cover story of *Christianity Today* ("The Search for the Historical Adam," June 22, 2011), the catchy title of Denis Lamoureux's *I Love Jesus and I Accept Evolution* (2009), the level of interest in local churches and at seminars and workshops offered at Evangelical colleges and seminaries, or a generation of students who want to know how to fit together an age of dinosaurs and the Adam and Eve story, a growing number of Evangelical Christians have turned the page, so to speak, and are requiring a new perspective. The *New York Times* best seller by Francis S. Collins, *The Language of God: A Scientist Presents Evidence for Belief* (2006), fits the bill in every way. In 2007 Collins took a crucial step in opening an avenue of dialogue among progressive Evangelicals by establishing a forum for exploring the belief in theistic evolution: the BioLogos Foundation (www.biologos.org). Francis Collins is by no means a name to pass over lightly. He was President's Obama's choice in 2009 to assume the directorship of the National Institutes of Health, America's largest biomedical research agency. He is also the same Francis Collins who stood beside President Carter in 2000, along with his rival, Craig Venter, in the race to announce to the world a working draft of the human genome. What is remarkable and heartening is that here is

23. Complexity is the theme of articles collected by Lindberg and Numbers, *When Science*. For the reference to Draper and White, see Livingstone, "Re-placing Darwinism," 192–94.

24. See Kenneth R. Miller, *Only a Theory: Evolution and the Battle for America's Soul* (New York: Viking, 2008).

a renowned scientist and a confessing Evangelical Christian demonstrating that the two realms of Christian faith and science can be reconciled in a practical way.

As the editor of *Perspectives on Science and Christian Faith*, the journal of the American Scientific Affiliation, an organization of Evangelical scientists and individuals committed "to investigat[ing] any area related to Christian faith and science," Arie Leegwater relates his own "hard lesson." In his introductory editorial for an issue devoted to the historical Adam, genomics, and evolutionary science, Professor Leegwater recounts his experience of walking through the new David H. Koch Hall of Human Origins at the Smithsonian Museum of Natural History in Washington, D.C. "One is taken on a journey of over seven million years," he writes, "and I found myself rethinking some of my long-cherished positions." [25]

For those who teach science and are well acquainted with the rubrics of science, such as members of the American Scientific Affiliation, the process of rethinking is not so earthshaking. It would be misleading, however, to jump to the conclusion that reconciling traditional Christian beliefs and science means the same thing for everyone. Even when defending inerrancy or verbal inspiration is no longer the primary issue, the historicity of the Bible remains a contentious issue (see below). But it seems that those already trained as scientists see a bigger picture, which overrides an "intense battle between believing science and believing Scripture."[26]

Recently, the historicity of Adam and Eve has come to the forefront, revealing how divided Evangelicals remain. There are several ways to interpret the Genesis account, and each reveals a fault line. God directly created Adam and Eve, the historical parents of the human race. And it is this individual (Adam) that Luke refers to in recounting the ancestry of Jesus reported in chapter 3 of his Gospel. It is the same Adam St. Paul refers to in Romans 5 as the way sin entered the world and spread to all humans. Such an interpretation leaves little room for evolution. Bluntly

25. Arie Leegwater, "Editorial," *Perspectives on Science and Christian Faith*, 62/3 (September 2010), 145–46.

26. Sixty-four percent of white Evangelical Protestants remain opposed to evolution; Karl W. Giberson, "2013 Was a Terrible Year for Evolution," *The Daily Beast*, January 2, 2014, http://www.thedailybeast.com/articles/2014/01/02/2013-was-a-terrible-year-for-evolution.html. Giberson, a science professor forced to leave his position at an Evangelical college, comments that when Evangelical students took one of his classes, about half rejected evolution at the beginning but by the end of the semester, most accepted it; "Science and Belief," *The Christian Cen*tury, February 5, 2014, 8.

stated by Peter Enns, an Old Testament scholar, "a literal Adam as a special creation without evolutionary forebears is at odds with everything else we know about the past from the natural sciences and cultural remains."[27] Some posit the interpretation that God conveyed the divine image upon the human species indirectly through evolution. Adam and Eve could then be the first hominid group to evolve to the point where humans were sufficiently self-conscious to know they were created and responsible for their actions. Or a slightly different interpretation argues that Adam and Eve were an actual historical pair living among many about 10,000 years ago when they were chosen to represent the rest of humanity before God. Thus, Adam and Eve would be both historical beings with an evolutionary history and unique in that they were singled out.

Conservative Christians are reluctant to forfeit the historicity of particular texts since to do so implies that Adam and Eve were merely fictional or literary figures. In addition, it becomes necessary to explain the origin of original sin, a critical doctrine when tied to the redeeming work of Jesus Christ. If sin did not have a specific origin and reference to an actual pair of human beings, then it seems to fall prey to the murky waters of evolutionary development over a very long period of time. Even as the debate continues, there is disagreement whether such questions "could produce a huge split right through the heart of conservative, orthodox, historic Christianity" or become simply a peripheral disagreement that will "percolate along as an issue and more of the evangelical church will become fine with it."[28]

Nevertheless, Collins and his coauthor of *The Language of Science and Faith*, Karl W. Giberson, personify a new no-nonsense attitude when it comes to science, and they will have nothing to do with finding a place for supernatural explanations, such as Adam and Eve as a unique creation, when a scientific explanation is adequate. They write unapologetically, "We see no reason to insist that God must miraculously intervene to accomplish things like the origin of species, that God could just as well do by working through the laws of nature."[29] The resurrection of Jesus Christ, though, would be an exception because it is like no other historical event. Here, there seems to be a fair amount of equivocation

27. Richard N. Ostling, "The Search for the Historical Adam." *Christianity Today,* June 2011, www.christianitytoday.com/ct/2011/june/historicaladam.html.

28. Ibid. Here Outling is quoting Michael Cromartie and Karl W. Giberson.

29. Giberson and Collins, *The Language of Science and Faith* (Downers Grove, IL: InterVarsity), 71–72.

concerning miracles. Checking the BioLogos web page where questions are asked and answered, miracles are still affirmed both in Scripture and daily life. This means one can hold both views simultaneously; an event could be both miraculous and be explained scientifically.

In the instance of Adam and Eve, it would seem, there are just two alternatives: they were either uniquely created or evolved as one among many. The latter, however, is not very miraculous but that doesn't bother Collins and Giberson. And such a position would not be very far from one expressed by Galileo Galilei: "The task of wise interpreters is to strive to find the true meanings of scriptural passages agreeing with those physical conclusions of which we are already certain and sure from clear sensory experience or from necessary demonstration."[30]

The theological rationale behind this turnabout is stated simply and straightforwardly by one of the widely recognized proponents of rapprochement, Arthur Peacocke, who declares, "Indeed, because the world is created by God, knowledge through science of the world must enhance and clarify and, if need be, correct our understanding of God and of God's relation to creation, including humanity."[31] Keeping in mind that the NR began with an openness to allow scientific discoveries to shape and sharpen theological truth claims,[32] Evangelicals are realizing that a credible theology in a modern context must not only distance itself from a regressive defensiveness but find a way to embrace science as an indispensable resource for the progressive understanding of God.

The Roman Catholic Tradition

Within Roman Catholicism the history of interaction between science and theology has been dominated by four distinct influences. First and most obvious is the hierarchical and authoritative structure of the church. The conflict between Galileo and the Roman Catholic hierarchy was essentially a clash between an established priestly authority and the burgeoning authority of an independent discipline. Galileo conceded the church's authority over matters of faith and morals but held steadfast to

30. Letter to Benedetto Castelli, December 21, 1613. Quoted from Nancy K. Frankenberry, ed., *The Faith of Scientists* (Princeton, NJ: Princeton University Press, 2008), 12–13.

31. Peacocke, *Evolution: The Disguised Friend*, viii.

32. See Ted Peters's introductory statement that "scientific knowledge should inform and sharpen theological truth claims" in Peters, *Science and Theology*, 1.

the claim that scientific observation and measurement were not hypothetical (speculative) but deserving of their own authority. The outcome of this particular encounter is well known, but a limited lens in what it tells us about the Roman Catholic tradition of finding a place for science.

Second is the Catholic emphasis on the rational foundations for religious belief. Reason is understood to be a bridge between faith and the natural world since we were created to use reason and the world itself was created with a rational structure, which human intelligence is capable of perceiving. For Catholic thought, then, philosophy plays an enormous role in structuring theology rationally and thus rendering it believable. John Paul II reaffirmed "the positive contribution which rational knowledge can and must make to faith's knowledge."[33] Aquinas and his *Summa Theologiae*, which he began in 1268 and was still amending as death came, represented a willingness to embrace truth wherever it might be found. Along with St. Albert the Great, Thomas was among the first to acknowledge the autonomy of philosophy and (Aristotelian) science as required to complete our understanding of God.

Third is the long-standing commitment to the unity of truth. The unity of truth is a fundamental premise asserting that various modes of knowing will eventually lead to truth in all its fullness. Thus, faith and reason, revelation and natural knowledge, while separate and distinct, "not only in their point of departure but also in their object," cannot ultimately contradict each other because they emanate from the same divine source.[34] Because of the possibility of knowing a universally valid truth, Catholic theologians are motivated to engage other disciplines in a sincere and authentic manner.

Fourth is the dependence on a theology of natural law and the role it plays in what it means to be a moral person. The Catholic understanding of natural law is normally associated with the development of a moral ethic, but it intersects with science because "natural" implies an understanding of what is natural. The concept of natural law is easily misused and misunderstood unless it includes three traditional loci: nature, reason, and Scripture. Briefly stated, natural law refers to those theological principles that arise from the natural givens of human life as understood in the context of Scripture and the goodness of God's creation. "Contrary to what is commonly assumed," Jean Porter points out, "natural law

33. John Paul II, *Fides et Ratio,* 71.

34. Ibid., 70.

thinkers did not attempt to derive moral principles from a supposedly self-evident and fixed conception of human nature."[35]

In other words, natural law is a selective process privileging certain aspects of nature rather than assuming our capacity for moral judgment (conscience) is trustworthy. The concept of the natural, then, is a theological notion built on key scriptural texts from Genesis and the Pauline letters that enable proponents of moral law "to distinguish between those aspects of our nature that are normative, and those that are not."[36] A case in point is when Catholic theology privileges procreation as the primary purpose of sexuality while de-emphasizing sexuality as an expression of personal love between two persons. As a further point of clarification, Porter reiterates, "None of this implies procreation is the only legitimate purpose of sexual activity or marriage, or that it is the only purpose that can be defended on theological grounds," but it does promote a particular ideal of marriage on the part of the Christian community.[37]

Unfortunately, the controversies surrounding Galileo Galilei and Charles Darwin have unduly colored how we regard the interaction between Catholicism and science. At the expense of a more balanced perspective, these two controversies accentuated the disparity between an entrenched magisterium and the multitude of priests and scientists who have dedicated themselves to exploring the beauty and rationality of the heavens above and living things below. The Catholic Church acknowledges it erred gravely in these matters by not trusting its own pronouncements concerning the unity of truth and the freedom each discipline requires to pursue truth. In its awakening to the modern science of the twentieth century, the Catholic Church has demonstrated an openness that welcomes what science can contribute to our understanding of human nature and the universe. The Catholic commitment to science is amply evidenced by the widely recognized work of the Vatican Observatory and the Pontifical Academy of Sciences; the latter includes forty-three Nobel Prize winners. Addressing the Pontifical Academy of Sciences, and before his resignation, Pope Benedict XVI recast the famous dictum by Einstein in this way: Without faith and science informing each other "the great questions of humanity leave the domain of reason and truth, and

35. Jean Porter, *Natural and Divine Law: Reclaiming the Tradition for Christian Ethics* (Grand Rapids: Eerdmans, 1999), 17.

36. Ibid.

37. Ibid., 221–22.

are abandoned to the irrational, to myth, or to indifference, with great damage to humanity itself, to world peace, and to our ultimate destiny."[38]

Bothersome Questions

This survey of the contemporary scene exposes a number of interrelated questions that only make sense because we are looking at the bigger picture. Insofar as the NR has chartered a new course in bringing theology and science to the same public table of conversation, it deserves to be examined and evaluated. Protestants, Catholics, Evangelicals, and the new atheists bring to the discussion a unique contribution, accompanied by inherent difficulties, which will need to be addressed as the religious-scientific dialogue continues. Undoubtedly, to the extent that one is steeped in a conservative or liberal environment, there are hurdles, or a lack of them, that affect where you begin and where you end. But surely the astonishing discoveries of modern science invite, if not compel, a fresh examination of cherished beliefs. The NR, as I explicate in this book, has demonstrated that a historical, orthodox Christian faith does not have to be compromised in order to accommodate science. But even when we take into account the way many Christians have been shown how to think critically and positively about science, and been led to a mature understanding of their Christian faith, the NR by itself is not all that it could or should be. The questions below are meant to highlight where we need to look if we are to move forward.

Questions Specifically for the New Atheists

The frankness of the new atheists is something of a distraction, but not unwelcomed, because religion is forever in need of a good critique. According to their understanding of the contemporary scene, society would be better off if religion would quietly go away. What they offer in a positive appraisal, however, is overshadowed by the misconceptions they perpetuate. One of their basic arguments is that little would be lost and much would be gained if atheism were to prevail, for then we would be free to enjoy the benefits of a more progressive culture. This is scarcely

38. Quoted from Carol Glatz, "Faith, science must cooperate to protect people, planet, pope says," Catholic News Service, November 8, 2012, www.catholicnews.com/data/stories/cns/1204697.htm.

an unarguable position and the first reaction is to point out the valuable contribution of religion to society and individuals. John Haught, one of the foremost contributors to the NR, takes a different tack. He refers to new atheists such as Dawkins, Harris, and Hitchens as soft-core atheists, that is, in comparison to Nietzsche, Camus, and Sartre. He argues that the new atheism is delusional in its own way if it believes that a secular humanism stripped of religion is the answer that puts us on the path of human fulfillment. Evacuate religious beliefs, so the argument goes, and educators would be free to teach science without the interference of creationists, and students would learn that evolution rather than special creation is the ultimate explanation of who we are. Haught's rejoinder cuts to the quick. This, of course, is precisely the kind of atheism or secular humanism that nauseated Nietzsche and made Camus and Sartre cringe.[39] These more muscular critics, Haught retorts, at least had the insight to realize that a full acceptance of the death of God would still leave us with ideals but neither the discipline nor the communities to keep us banging on the doors of poverty, injustice, and hatred.

At the center of what the new atheism gets wrong about religion is a complete amnesia about the other kind of religion. For as much as they get right in their critique, it only applies to a religion that makes promises of inner peace at the expense of any self-searching thoughts, that turns us into fanatics instead of peacemakers who practice nonviolence, and that arouses devotion to tribe and state rather than envisioning an abiding peace among all of God's creatures.[40] Without a doubt, there is a fundamentalism that exists and even thrives by doing exactly what religion should not inspire, but in order to unmask that kind of religion we do not need to perpetuate the impression that religion has never been, nor could it be, the source of an uncommon hope and love that resists all that kills and harms another human being, and the Earth we inhabit.

The new atheists make the claim again and again that only truths based on evidence can count as knowledge worth knowing. The argument I will make is not for theology to find common ground with science by denying that science is superior when it comes to a particular kind of

39. John Haught, "Amateur Atheists," *The Christian Cen*tury, February 26, 2008, www.christiancentury.org/article/2008-02/amateur-atheists. See also his book, *God and the New Atheism* (Louisville: Westminster John Knox, 2008).

40. For example see Nicholas Wolterstorff's description of God's shalom in *Until Justice and Peace Embrace* (Grand Rapids: Eerdmans, 1983); or Miroslav Volf, *Exclusion and Embrace* (Nashville: Abingdon, 1996).

knowledge. Rather, the question before us is whether the knowledge that matters is necessarily of a scientific kind. The new atheism cannot get beyond the presumption that since science is the superior methodology, it should therefore be the great integrator, reminiscent of a time when theology was queen of human knowledge.[41] Theology is readily ignored because the culture is convinced that the only relevant truth is what yields technological advancement. This is an old "battle" between two cultures, notably the humanities and the hard sciences, and the new atheism has targeted religion as a cultural artifact of useless nonsense. But again it must be noted that Christian theology has from the beginning been a culture apart, bearing a word, and a Word, that proclaims the foolishness of God to those seeking signs and wisdom, or in today's language, a Western culture of Baconian *science*, Cartesian *rationalism*, and Lockean *empiricism* (1 Cor 1:22).

Questions Specifically for Evangelicals

In *The Language of Science and Faith*, Collins and Giberson write with a sense of weariness: "It sometimes seems we are constantly protecting traditional doctrines, finding plausible reinterpretations and discovering new compromises that we can make to accept what science has discovered about the world without rejecting faith."[42] The weariness is born of continually fighting the same battles. If one compares the mainstream tradition of the NR with the burgeoning Evangelical turnabout, one observation stands out. Evangelical Christians find it necessary to answer many kinds of questions about evolution and other scientific matters that liberals have simply left behind. The evolutionary history of the human species is simply taken for granted. The BioLogos web page is filled with questions such as, *How should we interpret the Genesis flood account? What role could God have in evolution? How can evolution account for the complexity of life?* (See home page, "The Questions.") This is not to say that mainline Christians can answer these questions beyond generalities. Rather, these types of questions do not matter to them in the same way that they do for conservative Christians. And the reason why is essentially twofold: liberals have a critical historical understanding of the Bible

41. For a discussion of when theology was queen of the sciences—when the sciences included law, poetry, and philosophy—and how she was dethroned by modern science, see Coleman, *Competing Truths,* Part 1.

42. Giberson and Collins, *The Language of Science and Faith,* 177.

and think with a modern consciousness. When it comes to empirical evidence—evidence that is well established—the first reaction is not to doubt the evidence but to find ways to incorporate it into the larger body of Christian thinking.

As long as conservative Evangelicals are beholden to a biblical world view, they will make it very difficult to regard science as an ally in understanding the true nature of God. Evangelicals are thoroughly modern in how they live their lives. The difficulty arises specifically when your understanding of God is embedded in a biblical world view, and this world view clashes with the universe described by science. The biblical view of the world is one where Moses parts the Red Sea and Jesus walks on water, where God speaks as if he is another human, where chance and coincidences reflect the hand of God, where history is compacted to reveal those who are with God and those who are against him, where the judgment of God is promised and divine justice assured. The rub comes not only because a natural science will exclude all of this, *methodologically* speaking, but also comes in aces because the *ontology* of a modern world view is indifferent to humankind; it begins and exists at a subatomic and molecular level where indeterminacy and mutation proceed at such a slow and invisible pace that God's existence becomes an act of faith. Regardless of whether Adam and Eve were a unique creation or evolved, they lived in a world where everything else evolved gradually and over very long periods of time.

The theory of evolution invites us into a view of the world so different from Scripture that it requires every Christian who thinks in biblical terms to reexamine practically everything. At the very least, the individual Christian, who lives by a personal belief in a God who knows all things and works for the good in all things, is invariably at odds with a world that is capricious and filled with unsettling anomalies. The theory of evolution posits a world view that requires us to relinquish many of our comfortable ideas of divine order and rethink the limits of the divine. While a theistic interpretation of evolution is a valid starting point, it does not resolve a host of questions. Neither can it pick and choose, for it needs to find a place for the gradual emergence of new species by way of natural selection, common ancestry, chance at the quantum level, mutations, bad design, deformity, and the tragic aspects of life itself (e.g., birth defects, Lou Gehrig's disease, genocide). A universe that is cold and indifferent, an earthly world that is red in tooth and claw, and life processes that are meandering and driven by survival of the fittest are not

transparent windows to an intelligent designer. A biological history that looks nothing like a straight line guided by purpose just doesn't preach easily in any pulpit. As John Polkinghorne once remarked, "The world is not full of items stamped 'made by God.'"[43] And if you take the next step, you confront the conclusion of Daniel C. Dennett that natural selection is the clear winner over intelligent design, and therefore the burden of proof has shifted to demonstrate how special creation is an adequate or even cogent explanation.[44] The decision will be, then, whether to accept evolution as not only an established explanation about nature but also a view of the world concerning all of creation.

Questions Specifically for Liberal Protestants

With unusual perspicacity Walter Brueggemann identifies the significance of Karl Barth's theological revolt. Commenting on Barth's *Epistle to the Romans* in 1919, Brueggemann discerns how Barth set the stage for a radically new season of theological discourse that "refused the well-established assumption of a self-confident liberalism." In doing so, Barth "committed an overt act of epistemological subversion," breaking with the nineteenth-century valuing of "reasoned universals and a Cartesian program of autonomous reason."[45] In light of this, the question contemporary liberal Protestants might ask themselves is whether the effort to model theology after science impedes all calls for a new overt act of epistemological subversion. Certainly theologians, such as Hans Frei, have warned of substituting a narrative of modernity for a narrative of faith where Scripture ceases to function as the lens through which theologians view the world and instead becomes an object of study.[46] Barth's enduring contribution lies in a methodology that secures Christian theology as a critical voice. In working through his own thoughts of how to write an Old Testament theology that is faithful to the texts, Brueggemann does not ignore the body of historical critical evidence but proceeds on the premise that the "reality of God is an exercise in the daring rhetoric

43. Polkinghorne, *Belief in God in an Age of Science* (New Haven, CT: Yale University Press, 1998), 1.

44. Dennett, *Darwin's Dangerous Idea,* 47.

45. Walter Brueggemann, *Theology of the Old Testament* (Minneapolis: Fortress, 1997), 16.

46. See Hans Frei, *The Eclipse of Biblical Narrative* (New Haven, CT: Yale University Press, 1974).

arising from the oddity of the subject."[47] The proposition, then, that needs to be examined is whether the contemporary effort to accommodate science has weakened the unique role of theology to speak a word that always maintains a critical distance whereby no ultimate attachments are permitted. Stanley Hauerwas, who is well known for his dissonant views, tries to set the record straight in this way: "Christian discourse is not a set of beliefs aimed at making our lives more coherent; rather, it is a constitutive set of skills that requires the transformation of the self to rightly see the world."[48]

Not too far removed from this critique is a concern that liberal Protestantism has lost its evangelical voice. This is a generalized critique heard in many quarters but has a particular relevancy regarding theology's rapprochement with science. The NR has not so much compromised a faithful witness to the primary tenets of Christianity as remitted its obligation to voice the peculiar perspective of a nonconforming polemic. Liberal theologians need to risk the consequence of countering a dominant scientific culture with their own particular culture of a "faith that will never let us be assimilated into any judgment about reality."[49] John Yoder writes the following to remind us what it means to be an evangelical witness:

> For a practice to qualify as "evangelical" . . . means first of all that it communicates news. It says something particular that would not be known and could not be believed were it not said. Second, it must mean functionally that this "news" is attested as *good*: *as shalom*. It must be public, not esoteric, but the way for it to be public is not an a priori logical move that subtracts the particular. It is a posterior practice that tells the world something it did not know and could not believe before. It tells the world what is the world's own calling and destiny, not by announcing either a utopian or a realistic goal to be imposed on the whole society, but by pioneering a paradigmatic

47. Brueggemann, *Theology of the Old Testament,* 18.

48. Stanley Hauerwas, *Dispatches from the Front* (Durham, NC: Duke University Press, 1994), 7.

49. Jacques Ellul has written extensively on the implications of modern technology for Christian faith. His *Living Faith: Belief and Doubt in a Perilous World* is just one example of someone who understands our modern situation while distinguishing those marks of an authentic Christian faith (quote is from 183).

demonstration of both the power and the practices that define the shape of restored humanity.[50]

Questions Specifically for Roman Catholics

Because an authoritarian structure circumscribes a Catholic way of doing theology, a genuine rethinking of Christian tenets in light of scientific discoveries can be difficult and exasperating. As conservators of Catholic teaching, those theologians engaged with science feel obligated to align science with dogmatic theology. Theologians, such as Karl Rahner and Edward Schillebeeckx, have been enormously creative but at the same time there is an ivory tower air about Catholic theology that does not sit well with experimental science. Science is essentially a bottom-up way of thinking, while Catholic theology begins with a teaching that relies on revelation and Scripture and reasons downward. And to the extent the NR has found common ground with science by being nonfoundational—recognizing the historical nature of all human knowledge—Catholic theology is foundational in the sense that it strives for a unified and organic *system* of truth.

Cardinal John Henry Newman (1801–1890) created an intriguing paradigm. When Darwin's theory of evolution was raising hackles across Europe, Newman stated that he was not frightened by Darwin, declaring evolution to be self-evident. And the most interesting dimension of Newman's admittedly iconoclastic way of thinking was his postmodern understanding of the historical character of Christian faith. In his review of three recent books devoted to Cardinal Newman, Ralph C. Wood writes, "Embracing evolutionary change and historical development, Newman argued that the vitality of dogma lies in its constant deepening and enlargement. Christian doctrine remains true to itself precisely by way of its organic growth."[51] While this is a paradigm worth remembering, it does not alleviate the burden of reconciling scientific evidence that does not square with Catholic teaching.

If one begins with the proposition, as it is asserted by John Paul II, that there are two orders of knowledge, faith and reason, revelation and natural, then the two need to be harmonized in order to reach a unity

50. Quoted from Rodney Clapp, "How Firm a Foundation," 92.

51. For Ralph C. Woods's review, see "Blessed and Dangerous," *The Christian Century*, July 25, 2012, 29.

of truth.[52] One can argue how successful Roman Catholic theology has been in forging a unified truth, but it seems clear that philosophy cannot continue to serve as a mediator as it has in the past. The Catholic tradition of utilizing philosophy to bridge two domains of truth does not transfer especially well when the disciplines are theology and science. The primary reason is the metaphysical nature of theology and the inherently antimetaphysical character of science. Most scientists are not interested in philosophical questions because of their responsibility to stick close to the empirical evidence. Theology is committed to asking ultimate questions while science is not, and this alone is sufficient to pull the two disciplines in different directions. Granted, the pull is not necessarily in opposing directions, but when your governing interests are so divergent the motivation to be dialogical partners is diminished.

It is more than perception that when the immovable truths of revelation meet the confirmed truths of empiricism something has to give, and in the final analysis dogmatic truth trumps all other kinds of truth despite the idealism that in the end there is only one all-encompassing truth. We should not fault Catholicism for insisting that knowledge which is peculiar to faith surpasses knowledge particular to reason when it pertains to knowing the true God. "This truth," John Paul II writes, "which God reveals in Jesus Christ, is not opposed to the truths which philosophy perceives. On the contrary, the two modes of knowledge lead to truth in all its fullness."[53] When we substitute "truths of science" for "truths of philosophy," the issue of reconciliation is intensified. Strictly speaking, truths of science are neutral or objective and it is the believer's faith that perceives the Creator. Nevertheless, Catholic thought certainly is aware of the tension that exists between empirical knowledge and revealed knowledge and is quite willing to use the domain of faith and revelation to criticize the secular domain of scientific knowledge and its effect. Both John Paul II and Benedict XVI spoke out forcibly against the lure of rationalism, reductionism, moral relativism, materialism, a diminished understanding of personhood, individualism, and a culture of death, and that is a positive gain arising from a critical distance. It does not, however, alleviate the difficulty of achieving a unity of truth.

Despite the great strides being made to acknowledge the importance and validity of scientific knowledge, any dialogue reaches an impasse

52. John Paul II, *Fides et Ratio*, 18, 70.

53. Ibid., 47.

when a theory of evolution, for example, is incompatible with revealed truth. Thus, to quote Pope John Paul II, who reiterates what he identifies as the essential point made by Pius XII, "if the human body takes its origin from preexistent living matter, [nevertheless] the spiritual soul is immediately created by God."[54] While safeguarding its teachings about original sin and original grace, a substantial difficulty is left to fester. Evolutionary theory, and a multitude of other scientific disciplines, would question how every aspect of human existence evolves except for the spiritual nature of being human. The image portrayed is that of a material vessel suddenly endowed with God's spirit over against an understanding of a species that gradually develops intellectually, emotionally, socially, morally, and spiritually, and does so as an integrated whole. Thus we find (some but not all) Roman Catholic theologians accepting but also contesting some aspect of the consensus understanding of evolution.

An attempt to resolve this kind of impasse is provided by John Paul's II statement in 1996, "The moment of transition to the spiritual cannot be the object of this kind of [scientific] observation, which nevertheless can discover at the experimental level a series of very valuable signs indicating what is specific to the human being."[55] While helpful, the suggestion being made compounds the problem. John Paul II is highlighting a methodological discontinuity between theology and science, where the former posits a creation theology in order to explain the origins of the spiritual nature of being human, and an evolutionary theory to explain the material dimension of being human. Unfortunately, this is just the kind of dualism that impedes dialogue and leaves the impression of two distinct and autonomous disciplines operating with two distinct and autonomous methodologies.[56]

Natural law has served as both a bridge and an impediment toward encouraging a robust exchange of ideas between theologians and scientists. Natural law depends on the supposition that we can know what are the *natural* givens of human life. Apart from the theologizing done within Christian community, it seems a little naive to believe a universal

54. Quoted in Stephen M. Barr, "The Design of Evolution," *First Things* (October 2005), 9.

55. John Paul II, "Message to the Pontifical Academy of the Sciences," October 23, 1996, www.ewtn.com/library/papaldoc/jp961022.htm.

56. In his article for *First Things,* "The Design of Evolution," October 2005, 9–12, Barr argues that the reason for the false opposition between Catholic doctrine and scientific theory is the invalid inferences drawn from neo-Darwinism. Yet, the opposition is not entirely false and Barr is trying to make the best of a difficult situation.

and accessible moral rationality is going to come into focus. Keeping in mind that you are extracting those givens selectively in accordance with Scripture and Catholic teaching, you find yourself asking this question. When Maxine Sheets-Johnstone begins her volume *The Roots of Morality* by writing "this book elucidates an understanding of morality grounded in the nature of human nature," do we trust that what she finds based solely on a scientific investigation of what it means to be human will coincide with Catholic teaching?[57] Even within the Catholic community some theologians argue that homosexuality is sinful because it is a violation of the natural order, while others are asking whether science fortifies the conviction that homosexuality is itself part of the human condition, that is, a natural part.

Working from a position of natural law has its limitations, ever more so as traditional moral lines lose clarity within the complexities surrounding euthanasia, cloning, new reproductive techniques, human enhancement, stem cell research, genetic engineering for the purpose of human enhancement, and synthetic biology. The latter highlights the difficulty in assessing what is truly natural when synthetic biology further blurs the line between natural and artificial, since humans are doing exactly what evolution does, only self-consciously; that is, continually refining its creation by means of naturally occurring mutations.[58]

The debate about the ethics of stem cell research is particularly revealing of the predicament natural law presents when there is a Jewish, feminist, Protestant, and Catholic perspective on what is *natural*.[59] The question about what constitutes life, or when human life begins, would seem to be the kind of issue science could decide. Obviously not. The clash between science and theology is not always about the science or even the interpretation of this or that science. Rather, and particularly so for Roman Catholicism, it is the dialogue about how we value or privilege the moral conclusions we draw from the science.

57. Sheets-Johnstone, *The Roots of Morality,* 1.

58. See Nicholas Wade, "Genetic Engineers Who Don't Just Tinker," *New York Times*, July 8, 2007.

59. For an informed discussion from a variety of theological perspectives, see Suzanne Holland, Karen Lebacqz, and Laurie Zoloth, eds., *The Human Embryonic Stem Cell Debate* (Cambridge, MA: MIT Press, 2001).

Questions for All

During the centuries when science was establishing itself as an autonomous method of knowing, theologians and scientists were finding ways to accommodate each other. That situation took a decisive turn when the theory of evolution secured empiricism as a methodology capable of encompassing both the physical universe and the biological world.[60] Darwin's publication of *The Origin of Species* in 1859 became a watershed date because a clear choice was now possible between two methodologies, each claiming a superior kind of truth. Consequently, theology and science separated into two distinct and autonomous domains, and scientists wanted to distance themselves from the intrusion of religious assumptions. The science that created the atomic bomb ushered in another era where scientific knowledge became the gold standard for knowledge that is certain and relevant. We now look to science to provide more than technological know-how. Science in the form of technology became the engine for our economy, the source of knowledge with the potential for immense evil and good.[61] Consequently, theology was forced to take a backseat because of its association with speculation, subjectivism, and fideism or a self-authenticating methodology. Theological knowledge could no longer compete with scientific knowledge because it was neither unified, objective, nor universal, and as a result could be deemed to no longer be relevant.

The NR with science represents a definable effort to restore theology's relevancy—a source of knowledge that matters—by aligning itself with science. Process theology, for instance, was a development aimed at reinterpreting traditional forms of theism in order to comply with the latest discoveries regarding the physical universe. The NR continues to dedicate itself to finding common ground between theology and science. Liberal Protestants, joined by a generation of Roman Catholics scholars, and now a growing number of progressive Evangelicals, understand that unless their truth-claims meet the common standard of rationality and accountability they will be ignored and even mocked by the new atheists.

60. For a discussion of how difficult it was for Darwin and his defenders to justify a methodology that was statistical in nature and characterized as one long argument in comparison to Newton's equations and precise observational consequences, see Hull, *Darwin and His Critics*, 32–322

61. See Coleman, *Eden's Garden*, chapter 1.

The central question this survey raises is how to balance Christian faithfulness with credibility. Does theology need to be scientific in order to be credible (taken seriously) and true? Because we live in a scientific era, and will continue to do so for the foreseeable future, one can hardly say, "It doesn't matter." Granting that being faithful to one's history and tradition means something different for Protestants, Roman Catholics, and Evangelicals, Christian theology will still need to find a way to acknowledge science as a legitimate source of knowledge while retaining a critical distance in order to speak a word uniquely Christian. But how do Christians defend and proclaim a word uniquely their own in a way that is persuasive in the twenty-first century? Certainly this is not a new challenge for theologians who, unlike scientists, are obligated to speak a new word to every new generation. Christians know that the path of Protestant pietism, Catholic scholasticism, or Evangelical fundamentalism cannot succeed. A theology that is well informed by the ongoing discoveries of science is a first step, but only that. The next step will be more demanding and while the doors of dialogue have been opened, science and theology are confronted by the exacting task of working out a symbiotic relationship that is satisfying and fruitful for both disciplines.