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Evolution and the Bible

The Hermeneutical Question

Theistic evolutionists suggest that evolutionary theory is not necessarily in conflict with biblical teaching. But in fact conflict is avoided only by reinterpreting Genesis 1–3. Is such a reinterpretation justified? There exists a hermeneutical tradition that dates back to St Augustine which offers guidelines regarding apparent conflicts between biblical teaching and natural philosophy (or "science"). These state that the literal meaning of the text may be abandoned only if the natural-philosophical conclusions are established beyond doubt. But no large-scale scientific theory, such as Darwin's, can claim this degree of certainty. It follows that to justify their reinterpretation of Genesis 1–3, Christians must *either* argue that the literal sense of the biblical text can be maintained *or* accept that this view of biblical authority is untenable. Three alternative views are discussed: a first that limits the scope of biblical authority, a second that distinguishes between the Bible and the Word of God, and a third that abandons the idea that religious faith offers certain knowledge. While the third view seems the most defensible, it comes at a cost: the recognition that, as John Locke put it, "reason must be our last judge and guide in everything."

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There exists a range of Christian responses to Charles Darwin's account of human origins: his theory that human beings have, like other animals, evolved by a process of natural selection. At one end of the spectrum are young-earth creationists, who not only deny that there exists a natural explanation of human origins but also hold to what they consider a literal reading of the biblical narrative, suggesting that the universe is less than 15,000 years old. At the other end of the spectrum are "theistic evolutionists," who, while recognizing the challenge posed by Darwin's theory, hold that it is not incompatible with the Christian faith. One can, they argue, without inconsistency be both a Darwinian and a Christian.[1]

There are well-known scientific objections to young-earth creationism.[2] But the alternative Christian view—theistic evolutionism—also faces challenges, both philosophical and hermeneutical. I have discussed the philosophical challenges elsewhere;[3] here I take up the hermeneutical question. Can the Bible's account of human origins be interpreted in a way that is consistent with Darwin's theory? As I shall argue shortly, this question forms part of a much larger debate regarding biblical authority. This debate, which began in the seventeenth century onwards, was the result of a new willingness to regard the Christian scriptures as ancient documents, which were to be understood by reference to their historical context. Within this debate, the question of Darwinism is merely one question among many. It is, however, an important question, an examination of which will highlight some of the difficulties facing modern Christian thinkers.

While theistic evolutionists recognize that a literal reading of key biblical texts seems incompatible with Darwinism, they insist that there are good reasons why the Bible should not be read in this way. Karl Giberson, for example, discusses the traditional strategies for accepting evolution while keeping

[1] There are, of course, Jewish and Muslim theistic evolutionists, but to keep this discussion manageable I shall restrict myself to the Christian variety. My focus will be further narrowed, in that the responses I shall be dealing with are all to be found within Western (as distinct from Eastern Orthodox) Christian traditions. With regard to evolutionary theory, although I shall speak of "Darwinism" or "Darwin's theory," these terms are intended to refer to the modern "neo-Darwinian synthesis," which combines Darwin's original insights with our modern knowledge of both DNA and population genetics.

[2] The anti-creationist literature is extensive, but for a thoughtful and informed example, see Philip Kitcher, *Abusing Science: The Case Against Creationism* (Cambridge: MIT Press, 1982).

[3] Gregory W. Dawes, "Can a Darwinian be a Christian?" *Religion Compass* 1, no. 6 (2007): 711–24.

as close as possible to the text of Genesis—such as the "day-age" and "gap" theories[4]—but then suggests that these are unnecessary. "Multiple elements in the Genesis story of creation," he writes, "suggest a figurative or symbolic, rather than a literal reading."[5] Another theistic evolutionist, Kenneth Miller, also favours a broadly symbolic interpretation. "To reveal Himself to a desert tribe six thousand years ago," he writes, God spoke "in the direct and lyrical language of Genesis."[6] All the Christian needs do today is to employ a "broader and more sensible reading" of Genesis than that adopted by young-earth creationists.[7]

In the final analysis, Giberson and Miller may be correct. It may be possible to interpret the biblical text in a way that is compatible with a Darwinian account of human origins. But the hermeneutical task is not as simple as they suggest. It may be possible to reconcile Darwinism and Genesis, but only at the cost of abandoning a widely accepted view of biblical authority. There exist alternative views of biblical authority, of which I shall examine three. The first is philosophically problematic and the second is theologically questionable. The third seems more defensible, but it involves abandoning a widely held view regarding religious belief: that it brings certainty regarding the matters that are believed. So while it may be possible for a Darwinian to be a Christian, the consequences of doing so ought to be acknowledged.

Posing the Question

In discussing this hermeneutical task, I am assuming that it relates above all to the opening chapters of Genesis. There are other biblical verses that have been understood to exclude belief in at least human evolution, such as Job 10:9 and 1 Cor 15:47, but these "merely recapitulate the thought of Gen 2:7 and must be explained in the light of the primary source from which they

[4] The former holds that each "day" of the six-day Genesis account represented not a 24-hour day, but a long period of earth history, while the latter holds that a great expanse of time—enough to accommodate a modern view of earth history findings—lay between the creative event told of in the first verse of Genesis and that spoken of in the rest of the biblical account.

[5] Karl W. Giberson, *Saving Darwin: How to Be a Christian and Believe in Evolution* (New York: HarperCollins, 2008), 52.

[6] Kenneth R. Miller, *Finding Darwin's God: A Scientist's Search for Common Ground Between God and Evolution* (New York: HarperCollins, 1999), 257.

[7] Ibid.

derive."[8] I shall not, however, be offering an interpretation of Genesis 1–3, a task that would take me beyond the scope of this essay. I am not even going to assume that there exists a correct interpretation of these biblical texts. Writers on hermeneutics have offered various theories of textual meaning and the application of these to the text of the Bible raises complex issues. If, for example, you identify the meaning of a text with what its authors intended to convey, then the key question will be what the authors of Genesis intended their audience to understand by their words. Even setting aside the historical difficulties—the fact that we have little idea who wrote and edited these texts—there remains a theological question regarding authorship. A widely held Christian view is that the author of this text was, in fact, God, who used human beings as his instruments to convey his message. A description of authorial intent that takes God to be the author of the text will be very different from one that acknowledges only human authorship.

No, rather than wading into these murky waters, I shall begin with a less contestable observation. It is that Christian acceptance of a Darwinian account of human origins has—as a matter of historical fact—involved a reinterpretation of Genesis 1–3. It is true that not even early Christian writers took every aspect of the Genesis account at face value. St Augustine (354–430 CE), for example, recognised the difficulty of reconciling Gen 1:3 (regarding the creation of light) with Gen 1:14 (regarding the creation of "the lights in the firmament of heaven"). If the lights in the firmament of heaven are (as they seem to be) the source of light on earth, then what was the light created in Gen 1:3?[9] But although thoughtful Christians were aware that these verses required interpretation, pre-modern commentators understood them to make reference to actual events.[10] They assumed that Genesis 1–3 contained not simply a theological message about God and humanity, but also historical claims regarding human origins.

This point is worth emphasizing, since a number of modern authors assert without qualification that early Christian writers adopted an "allegorical approach" to Genesis 1–3.[11] This certainly misrepresents Augustine, who in his commentary *De Genesi ad litteram* adopts a non-literal reading only

[8] Michael J. Gruenthaner, "Evolution and the Scriptures," *Catholic Biblical Quarterly* 13, no. 1 (1951): 24.

[9] Augustine, *Gen. Litt.* 1.11 (PL 34:254–55).

[10] Kenneth J. Howell, *God's Two Books: Copernican Astronomy and Biblical Interpretation in Early Modern Science* (Notre Dame: University of Notre Dame Press, 2002), 30.

[11] Giberson, *Saving Darwin*, 53.

when no literal reading is possible.[12] Most pre-modern Christian interpreters followed Augustine in this respect. Before about 1655 (the date of the publication of Isaac de la Peyrère's *Men Before Adam*), Christians assumed that Genesis 1–3 taught both a relatively recent creation and a special creation of human beings.[13] It was not always clear what this special creation involved, but it was generally thought to entail a direct divine action, an event that could not be exhaustively explained by reference to natural causes.[14]

My starting point will be the assumption that a Christian cannot accept evolutionary theory without abandoning at least aspects of this traditional way of interpreting the Bible. Taking the biblical chronology at face value, for example, leads to the conclusion that the world was created about 4004 BCE.[15] But no Christian could accept Darwin's theory without considering the earth to be indescribably older than this (largely traditional) interpretation suggests. Many late nineteenth-century Christians accepted this idea and—in the light of both the geological evidence and Darwin's theory—offered a reinterpretation of the relevant biblical texts.[16] The question I shall ask is: Were they right to do so?

As I mentioned a moment ago, there was a broader historical context within which this question first arose. Even before the publication of Darwin's work in 1859, some Christians had come to the conclusion that Genesis 1–3 required reinterpretation. The period in which Darwin wrote was a time when Near Eastern archaeologists were uncovering previously unknown bodies of ancient literature, which enabled the Bible to be placed in its historical

[12] Charles J. Scalise, "The 'Sensus Literalis:' A Hermeneutical Key to Biblical Exegesis," *Scottish Journal of Theology* 42, no. 1 (1989): 51–55.

[13] John Stenhouse, "Genesis and Science," in *The History of Science and Religion in the Western Tradition: An Encyclopedia*, ed. Gary B. Ferngren (New York: Garland Publishing, 2000), 88. If further evidence is needed, it is provided by the controversy that surrounded La Peyrère's suggestion, which led to the public burning of his book in Paris, its author escaping a similar fate by penning a (perhaps less than entirely straightforward) recantation. For more details, see David N. Livingstone, *Adam's Ancestors: Race, Religion, and the Politics of Human Origins* (Baltimore: Johns Hopkins University Press, 2008), 37–38.

[14] Neal C. Gillespie, *Charles Darwin and the Problem of Creation* (Chicago: University of Chicago Press, 1979), 22.

[15] This was, famously, the conclusion arrived at in the mid-seventeenth century by James Ussher, Archbishop of Armagh, who argued that the act of creation began on the evening of the 22nd of October (James Ussher, *The Annals of The World* (London: E. Tyler, for F. Crook & G. Bedell, 1658), 1).

[16] Jon H. Roberts, *Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859—1900* (Madison: University of Wisconsin Press, 1988), 174–75.

context. The discovery of the *Epic of Gilgamesh*,[17] for example, with its story of a world-wide flood, raised questions about the uniqueness of the biblical account.[18] Geologists, too, had already suggested that the earth was much older than a literal reading of the biblical chronology would suggest. As early as 1836, the astronomer and philosopher of science John Herschel had written Charles Lyell, whose geological research had highlighted the antiquity of the earth:

> Time! Time! Time!—we must not impugn the Scripture Chronology, but we must interpret it in accordance with *whatever* shall appear on fair enquiry to be the truth for there cannot be two truths.[19]

But although it emerged within this broader context, Darwin's theory lent new urgency to the question of just how Genesis 1–3 was to be understood. By focusing on Darwin's theory and its implications for biblical interpretation, I hope to uncover some of the principles at stake in the broader hermeneutical discussion.

My question, then, is whether Christians would be justified in reinterpreting Genesis 1–3 in a way that would make these texts consistent with a Darwinian account of human origins. What principles of biblical interpretation would allow them to reconcile the two? This question is not merely descriptive and analytical; it is also normative. My focus is not primarily on how Christians have, in fact, interpreted the Bible, although I shall offer some real-life examples. My focus is on the options that are available to the Christian thinker. Can she accept Darwin's theory of human origins without falling into an intellectually untenable position? So although the present work is not a *theological* essay, in the usual sense of that term, it can be thought of as an exercise in *conditional* or *hypothetical* theology. It posits certain religious assumptions and asks what conclusions would follow. The

[17] The first tablets containing this epic were discovered in 1851, although the first translation did not appear until 1872: see Vybarr Cregan-Reid, "The *Gilgamesh* Controversy: The Ancient Epic and Late-Victorian Geology," *Journal of Victorian Culture* 14, no. 2 (2009): 225.

[18] For a recent Christian discussion of these issues, see Peter Enns, *The Evolution of Adam: What the Bible Does and Doesn't Say about Human Origins* (Grand Rapids: Brazos Press, 2012), 35–60.

[19] Walter F. Cannon, "The Impact of Uniformitarianism: Two Letters from John Herschel to Charles Lyell, 1836–1837," *Proceedings of the American Philosophical Society* 105, no. 3 (1961): 308.

assumptions in question are not merely hermeneutical, in the narrow sense of that term. They have to do with the nature and scope of biblical authority, since how Christians respond to Darwin will be decisively shaped by how they think about the Bible.

An Augustinian Hermeneutic

I am beginning with a conception of biblical authority which dates back to St Augustine, since this conception has often been appealed to in discussions of science and religion.[20] Its usefulness is that it offers a set of principles that are intended to address apparent conflicts between divine revelation and secular knowledge. My question is: Would those principles allow a Christian to accept Darwin's theory of human origins? If not, what other principles are available?

Two Augustinian Principles

There exist two Augustinian principles that relate to apparent conflicts between the Bible and secular knowledge, one indicating when secular knowledge claims should take priority and the other when a literal reading of the biblical text should prevail. Following Ernan McMullin, I shall call the first of these the *principle of the priority of demonstration*.

> When there is conflict between a proven truth about nature and a particular reading of Scripture, an alternative reading of Scripture must be sought.[21]

When in other words, enquiry based on natural principles leads to a conclusion that appears to contradict scripture but cannot be doubted, then scripture must be reinterpreted.

By way of contrast, a second principle, the *principle of the priority of scripture*, states that when rational enquiry leads to something less than certainty, the authority of the literal sense of scripture is to be preferred.

[20] See, for example, Giberson, *Saving Darwin*, 53; Miller, *Finding Darwin's God*, 255–77; Michael Ruse, *Can a Darwinian Be a Christian?: The Relationship between Science and Religion* (Cambridge: Cambridge University Press, 2001), 61–62, 65.

[21] Ernan McMullin, "Galileo on Science and Scripture," in *The Cambridge Companion to Galileo*, ed. Peter Machamer (Cambridge: Cambridge University Press, 1998), 294.

> Where there is an apparent conflict between a Scripture passage and an assertion about the natural world grounded on sense or reason, the literal reading of the Scripture passage should prevail as long as the latter assertion lacks demonstration.[22]

These principles are at least implicit in Augustine's *De Genesi ad litteram*, his commentary on the literal sense of Genesis, and are accepted by medieval writers such as Thomas Aquinas.[23] They were employed by the church authorities during the trial of Galileo, restated by Pope Leo XIII at the end of the nineteenth century, and invoked by Pope Pius XII in 1950 when condemning polygenism (the view that the human race had more than one origin).[24] Nor are they to be found only among Roman Catholics. Augustine's work, after all, long predates the Reformation and its view of biblical authority was shared by Protestant thinkers such as Philipp Melanchthon.[25]

Underlying both Augustinian principles is the idea that there exist two kinds of knowledge, The first is natural knowledge, which is arrived at by the exercise of unaided human reason, while the second is sacred doctrine, which is arrived at with the aid of divine revelation. An important form of natural knowledge was what Augustine's medieval successors called "natural philosophy," the scope of which roughly corresponds with that of what we would call "science." Christian thinkers generally assumed that "God's two books"—the book of nature and the book of revelation—cannot contradict one another.[26] It follows that any apparent conflict between these two kinds of knowledge must be just that: *apparent* conflict, which could (in principle) be resolved.[27]

[22] McMullin, "Galileo on Science and Scripture," 295.

[23] Aquinas explicitly appeals to these two Augustinian principles in discussing the nature of the biblical "firmament": *Summa theologiae* 1a, 68, 1.

[24] Don O'Leary, *Roman Catholicism and Modern Science: A History* (New York: Continuum, 2006), 70–71; 152–53. The documentation on the Galileo affair will be cited below; for the later documents, see Leo XIII, *Providentissimus Deus* (1893) §§15 and 18 and Pius XII, *Humani Generis* (1950) §35.

[25] Melanchthon offered both natural-philosophical and biblical arguments (of an Augustinian kind) against a realist construal of the Copernican theory (Philipp Melanchthon, *Initia Doctrinae Physicae, dictata in Academia Witebergensi* [Wittenberg: Johannes Lufft, 1550], in a section entitled Quis est motus mundi?; see also Howell, *God's Two Books*, 57).

[26] The metaphor of the "two books" becomes common in the late medieval and early modern periods: see Arthur McCalla, *The Creationist Debate: The Encounter Between the Bible and the Historical Mind* (London: T & T Clark, 2006), 1–2.

[27] Augustine, it may be noted, adopts a similar approach to apparent conflict between the moral law or proven theological claims and the literal meaning of the biblical text. Here,

It is important to note that the two Augustinian principles rest on a further assumption: that divine revelation yields certain knowledge. This is the reason why any natural-philosophical reasoning that falls short of certainty cannot take priority over a literal reading of the biblical text. The assumed certainty of God's word trumps the authority of any natural-philosophical reasoning when the latter remains open to doubt. As Augustine remarks on one such occasion, "the authority of Scripture … is greater than all human ingenuity."[28] On other occasions, however, natural-philosophical reasoning might reach the level of demonstration. Augustine himself does not spell out what would be required for demonstrative proof, but he clearly thinks that there are facts about the natural world which even a non-Christian can know to be "certain from reason and experience," such as "the motion and orbit of the stars … the predictable eclipses of the sun and moon, [and] the cycles of the years and the seasons."[29] When such facts come into conflict with a literal reading of the biblical text, then that reading ought to be abandoned, to be replaced with either an alternative literal reading or a "spiritual" one.

Augustinian Hermeneutics and Darwinism

If a Christian thinker is to adhere to these traditional, Augustinian principles, there are two questions to be answered with regard to Darwinian theory. First, can one embrace Darwin's theory without abandoning the literal sense of the biblical text? If not, then a second question arises: Is abandonment of the literal sense of the text justified by the evidence that supports Darwinism?

The first of these questions—whether Darwinism is consistent with a literal reading of the biblical text—appears at first sight easy to answer. But in fact the question is not as straightforward as it might appear. What makes it difficult is the meaning of the phrase "literal sense." When Augustine and his medieval successors spoke of the "literal sense" (*sensus litteralis*) of the biblical

too, there are two principles. The first states that when the literal meaning of the text is morally or doctrinally offensive, then the text is to be understood spiritually (*Doctr. chr.* 3.10 [PL 34:71–72]). But where the literal meaning of the text is not morally or doctrinally unacceptable, it is to be preferred (*Doctr. chr.* 3.15 [PL 34:74]).

[28] *Maior est quippe Scripturae huius auctoritas, quam omnis humani ingenii capacitas* (Augustine, *Gen. Litt.* 2.5 [PL 34:267]; trans. John Hammond Taylor, *The Literal Meaning of Genesis*, 2 vols., Ancient Christian Writers 41 (New York: Newman Press, 1982), 1:52).

[29] *Plerumque enim accidit ut aliquid … de motu et conversione vel etiam magnitudine et intervallis siderum, de certis defectibus solis et lunae, de circuitibus annorum et temporum … etiam non christianus ita noverit, ut certissima ratione vel experientia teneat* (Augustine, *Gen. Litt.* 1.19 [PL 34:261], Taylor, *Literal Meaning of Genesis* 1:42; see also Augustine, *Conf.* 5.3).

text, they did not mean precisely what we moderns might mean. For modern thinkers, the literal meaning of a word or phrase is to be distinguished from its metaphorical meaning. Indeed, in modern usage the "literal" and the "figurative" are customarily regarded as contraries: no term can be used in a way that is both literal and figurative.[30] To say that a word is being used literally (in our modern sense) is to say that it has just one meaning and (when it refers to something) a single referent.[31] But a metaphor has, by definition, a twofold denotation: it has (as Max Black writes) a "primary" and a "secondary" subject.[32] If we say, for instance, that "man is a wolf to man" (*homo homini lupus*),[33] the metaphor's primary subject is "man," while its secondary subject is the "wolf" (the animal *canis lupus*). By invoking our commonplace beliefs about wolves—beliefs that are, incidentally, unfair to wolves[34]—the metaphor invites us to view human beings in a certain way.

By way of contrast, medieval writers do not identify the "literal" meaning of the biblical text by distinguishing it from the "metaphorical" meaning. Rather, they distinguish the "literal" meaning from the "spiritual" or "mystical" meaning. Indeed for late medieval interpreters, the literal (or historical) sense of the text embraced not only what we would regard as its literal meaning, in which words are being used univocally, in their ordinary, immediate sense. It also embraced what both we and medieval thinkers would recognize as metaphorical usages, in which words are being used in some sense other than their "natural signification."[35] In other words, while we would distinguish literal and metaphorical uses of language, for medieval interpreters, the metaphorical use of language could fall under the heading of the literal sense. As Anthony Nemetz writes, for the late medieval interpreter, "there is no essential difference" in the mode of signification "between a metaphor and [for instance] a genealogy": both are instances of the "literal" use of words.[36]

[30] Hugh Bredin, "The Literal and the Figurative," *Philosophy* 67, no. 259 (1992): 69.

[31] Anthony Nemetz, "Literalness and the *Sensus Litteralis*," *Speculum* 34, no. 1 (1959): 76.

[32] Max Black, "More About Metaphor," in *Metaphor and Thought*, ed. Andrew Ortony (1977; Cambridge: Cambridge University Press, 1979), 28.

[33] This oft-cited metaphor apparently goes back to Titus Maccius Plautus (254–184 BCE), where it is found in his *Comedy of Asses* (*Asin.* l.497), in the form *lupus est homo homini, non homo* (man is not a man, but a wolf to man).

[34] Mary Midgley, *Beast and Man: The Roots of Human Nature*, revised edition, Routledge Classics (1978; London: Routledge, 2002).

[35] Richard J. Blackwell, *Galileo, Bellarmine, and the Bible* (Notre Dame: Notre Dame University Press, 1991), 34.

[36] Nemetz, "Literalness and the *Sensus Litteralis*," 79.

Put in these abstract terms, this might seem confusing, but an example will make the difference clear. Let's say that a biblical text speaks of "the right arm of God." Taken literally in our modern sense, this phrase would refer to "a limb of God's body."[37] But of course no educated and orthodox medieval Christian would have understood it in this way. They would have understood it in the same way that we do, as a metaphorical reference to the power of God.[38] What makes medieval thinkers different from us is that for the medieval thinkers this metaphorical use of language can fall under the heading of the historical or literal sense of the text. When medieval interpreters took the phrase "the right arm of God" as a reference to the divine power, they did not believe they were interpreting the text spiritually. Rather, they understood its literal meaning to be metaphorical. If this sounds odd to us, it is because we are not using the term "literal" as they did.[39]

The second question is also a difficult one. The principle of the priority of demonstration allows the Bible to be given a non-literal reading *only if* the evidence against its literal interpretation constitutes certain knowledge. This was one of the issues at stake in the famous conflict between the church authorities and Galileo. Galileo believed that he had good reason to prefer the Copernican hypothesis and to reinterpret scripture accordingly. In his *Letter to the Grand Duchess Christina*, he even invokes the Augustinian principles in support of this idea. But he must radically extend these principles in order to make them applicable to the case at hand.[40] Notoriously, he failed to convince the church authorities that he was correct.

The difficulty here does not have to do with biblical interpretation alone. It has to do with our understanding of science. Medieval thinkers regarded *scientia—epistēmē* as distinct from *doxa*, to use the Greek terms—as a form of certain knowledge. For a set of ideas to merit the title *scientia*, it needed to involve demonstrative reasoning from self-evident first principles. It was, in this sense, knowledge of what is necessarily the case. It is not clear that

[37] Blackwell, *Galileo, Bellarmine, and the Bible*, 33.

[38] Compare Aquinas, *Summa theologiae* 1a, 1, 10, 3.

[39] As Rienk Vermij points out (*The Calvinist Copernicans: The Reception of the New Astronomy in the Dutch Republic*, History of Science and Scholarship in the Netherlands 1 (Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen, 2002), 243), the same broad conception of the "literal sense" is to be found among Protestant interpreters of the sixteenth and seventeenth centuries.

[40] Gregory W. Dawes, "Could There Be Another Galileo Case? Galileo, Augustine and Vatican II," *Journal of Religion and Society* 4 (2002): §§9–11.

Aristotelian science could ever have achieved this ideal.[41] But it was certainly an ideal and it is an ideal we no longer consider attainable. We no longer expect certainty of our large-scale theories, such as Darwin's theory,[42] nor do we expect them to offer knowledge of what is necessarily the case.

What follows? Ken Miller attributes to Augustine the view that "even the 'literal' meaning of Genesis must not stand in contradiction to the kind of knowledge that today we would call 'scientific.'"[43] But this is not quite correct. "The kind of knowledge that today we would call 'scientific'" cannot offer—nor does it claim to offer—the level of certainty that would warrant a reinterpretation of the biblical text, at least on a strict interpretation of Augustine's principles.[44] Creationists are often attacked for remarking that Darwin's theory is "merely a theory."[45] But of course there is a sense in which Darwinism—in common with all our best science—*is* "merely a theory," particularly when set alongside what Augustine and his followers consider to be the certainty of God's Word.

In making this point, I do not wish to endorse the creationist claim that because evolution is "merely" a theory we can disregard it. On the contrary, I believe the current neo-Darwinian synthesis to be an extraordinarily well supported theory, which more than merits our acceptance. My point is merely that we cannot claim for it the kind of certainty that would counterbalance what Augustine and his followers regard as the certainty of divine revelation. The history of science has taught us to be cautious here. If Newtonian physics needed to be radically revised in the early twentieth century, then we should not assume that even our best theories are established beyond any possibility of doubt. It follows that a Christian who (a) holds to a strict interpretation of the Augustinian principles and (b) considers Darwin's theory to be inconsistent with a literal reading of Genesis 1–3 should reject Darwin's theory and be a creationist. What Augustine and his followers take to be the certainty of

[41] Stephen Gaukroger, *Explanatory Structures: A Study of Concepts of Explanation in Early Physics and Philosophy* (Hassocks: The Harvester Press, 1978), 124.

[42] McMullin, "Galileo on Science and Scripture," 311.

[43] Miller, *Finding Darwin's God*, 255.

[44] Ernan McMullin ("Evolution and Special Creation," *Zygon* 28, no. 3 (1993): 309) argues that Augustine does not always "require a *conclusive* demonstration on the side of natural reason before abandoning the literal reading" of the biblical text, despite what he himself says elsewhere (e.g., *Gen. Litt.* 1.21 [PL 34:262]). But I shall ignore this apparent inconsistency in Augustine's writings and assume a strict interpretation of the Augustinian principles as outlined above.

[45] Stephen Jay Gould, "Evolution as Fact and Theory," *Discover*, May 1981, 34–37.

God's word should trump any degree of confidence that we can reasonably have in modern science.

There are, of course, two ways to avoid this conclusion. The first is to abandon the strong view of biblical authority that underlies the Augustinian principles, a step that many liberal Christian thinkers have already taken, even if they never make this explicit. More conservative Christians are likely to reject this option, being unhappy with what they would see as a downgrading of the status of the Bible. But this rethinking of biblical authority remains an option and I shall come back to it in the next section of this essay.

The other way out is to accept the Darwinian story while continuing to maintain the Augustinian principles. One could do this by arguing that even a Darwinian can accept a literal reading of Genesis 1–3. At first sight, this may seem an unpromising strategy. Could one seriously argue that Darwinism is consistent with a literal reading of Genesis? But before we dismiss this proposal, we ought to recall the broader use of the phrase *sensus litteralis* that we find among medieval writers, which can embrace what we think of as metaphorical expressions. A Christian might argue that those aspects of the Genesis account that seem incompatible with Darwin's theory are, in fact, intended to speak *metaphorically* about human origins. This would entail regarding the creation account as an extended allegory, whose individual elements symbolize wider truths regarding human beings. If this interpretation of Genesis 1–3 could be regarded as a kind of literal reading, broadly understood, the Christian could claim that she is not, in fact, abandoning the literal sense of the biblical text when she accepts Darwin's theory.[46]

Is this a tenable position? It is not clear that it is. There certainly exists a long tradition of interpretations of this kind, dating back to Philo of Alexandria's *De opificio mundi*. Philo understands, for instance, the serpent of the biblical account as "a fit symbol of pleasure," the man corresponding to "mind" and the woman to the "senses."[47] At one point, Augustine offers a very similar interpretation, although he elsewhere rejects it.[48] But would

[46] The same would be true of the claim that the authors of Genesis wrote their account as *myth* rather than *history*, although the term "myth" is used in so many differing ways that it is less than helpful in this context.

[47] Philo of Alexandria, *Opif.* §§157–58, 165, in F. H. Colson and G. H. Whitaker, eds. and trans., *Philo*, vol. 1, LCL (London: William Heinemann, 1929), 125–27, 130–31.

[48] Augustine, *Enarrat. Ps.* 48.1.6 (PL 36:548); cf. *Trin.* 12.13 (PL 42:1008–9); A. Kent Hieatt, "Eve as Reason in a Tradition of Allegorical Interpretation of the Fall," *Journal of the Warburg and Courtauld Institutes* 43 (1980): 221.

Augustine and his successors regard such readings as falling within the scope of the *sensus litteralis*? It is difficult to say. Some medieval exegetes, such as Nicholas of Lyre (1270–1349), define the literal sense of the text so broadly that they effectively collapse the spiritual into the literal.[49] But if we think of the literal sense as what a competent speaker of the language would ordinarily understand the words to mean, then an allegorical reading of Genesis 1–3 could hardly be classed as literal. It certainly goes beyond the kind of metaphor that Aquinas, for instance, considers to be part of the *sensus litteralis*.[50] It follows that this strategy is, at the very least, a controversial one.[51]

Rethinking Biblical Authority

Let me return to the first option, which is that of abandoning the view of biblical authority that Augustine employed. There are at least three ways in which this could be done.

(a) The first is to narrow the scope of biblical authority, so that the kind of facts that the natural sciences investigate fall outside of its domain.

(b) The second is to distinguish sharply between divine revelation and biblical witness, the latter being regarded as a fallible human word.

Both moves would allow the Christian to freely admit that the biblical account of human origins is mistaken.

(c) The third, which perhaps overlaps the second, is to abandon the assumption that the Bible offers certain knowledge. This would permit the reinterpretation of the biblical text in the light of an apparent conflict with science, even when the scientific theory in question cannot be said to have been conclusively demonstrated.

[49] James G. Kiecker, "Luther's Preface to his *First Lectures on the Psalms* (1513): the Historical Background to Luther's Biblical Hermeneutic," *Wisconsin Lutheran Quarterly* 85, no. 4 (1988): 289.

[50] Aquinas, *Summa theologiae* 1a, 1, 10, 3.

[51] Karl Barth's attempt to distinguish between "history" and "saga"—if it could be made to work—would play a similar role, allowing him to argue that the biblical saga of creation should not be read as history, in our modern sense: see K. E. Greene-McCreight, *Ad Litteram: How Augustine, Calvin, and Barth Read the 'Plain Sense' of Genesis 1–3*, Issues in Systematic Theology 5 (New York: Peter Lang, 1999), 184. As we shall see, however, Barth's view of biblical authority offers another way of overcoming perceived conflicts with the scientific knowledge.

(a) Narrowing the Scope of Biblical Authority

The first of these moves is a popular one. It has been favoured by scientists from Galileo to Stephen Jay Gould, as a way of averting conflicts between science and religion. It involves the attempt carefully to demarcate a sphere of religious authority that is distinct from that of secular, scientific knowledge.

Let me set out this view more formally, by describing it as a *principle of limitation*:

> Since the primary concern of scripture is with human salvation, texts of scripture should not be taken to have a bearing on issues of natural science.[52]

A recent expression can be found in the writings of evolutionary biologist Stephen Jay Gould, who articulates a principle he describes as that of NOMA: non-overlapping *magisteria* (where *magisterium* means "teaching authority").

> No … conflict should exist because each subject has a legitimate magisterium, or domain of teaching authority, and these magisteria do not overlap … The net of science covers the empirical universe: what is it made of (fact) and why does it work this way (theory). The net of religion extends over questions of moral meaning and value.… To cite the arch clichés, we get the age of rocks, and religion retains the rock of ages; we study how the heavens go, and they determine how to go to heaven.[53]

A Christian who held to this view could argue that the biblical account of human origins contains factual errors, but that these do not involve the kind of religious knowledge that God was intending to convey. If this view could be made plausible, a reinterpretation of the biblical text is not required. The Christian can frankly acknowledge that when the biblical authors discuss the kind of issues dealt with by the natural sciences, they are sometimes mistaken.

Can this admission of factual error be reconciled with the idea that God is the primary author of the Bible? One might reconcile the two by appealing

[52] This is based on, but not identical with, the principle of limitation that Ernan McMullin (mistakenly, in my view) attributes to Augustine: see McMullin, "Galileo on Science and Scripture," 298. It does, however, represent the principle that Galileo is attempting to defend (Dawes, "Could There Be Another Galileo Case?" §7).

[53] Stephen Jay Gould, "Nonoverlapping Magisteria," *Natural History* 106, no. 2 (March 1997): 16–26.

to another popular and traditional idea: that in conveying his message to humanity God "condescended" to using common forms of speech and adapted his message to what the people of that time believed. Galileo, for example, adopts this view in his defence of the Copernican hypothesis against the accusation that it is contrary to scripture. "The propositions dictated by the Holy Spirit," he writes, "were expressed by the sacred writers in such a way as to accommodate the capacities of the very unrefined and undisciplined masses."[54] In doing so, he stands within the Augustinian tradition, for Augustine, too, had invoked this idea, writing that on some occasions scripture may be "speaking with the limitations of human language in addressing men of limited understanding."[55]

While a Christian could appeal to this entirely orthodox idea of divine condescension (or "accommodation"), there are reasons to question the principle of limitation. The difficulties it faces are both historical and philosophical. Historically, conservative Christians have strongly rejected any attempt to limit biblical authority in this way, so that it covers only matters of faith (as distinct from matters of science or history). On the Roman Catholic side, a principle of limitation was condemned by Pope Benedict XV in 1920.[56] On the Protestant side, the conservative evangelical Chicago Statement on Biblical Hermeneutics of 1982 states that

> being wholly and verbally God-given, Scripture is without error or fault in all its teaching, no less in what it states about God's acts in creation, about the events of world history, and about its own literary origins under God, than in its witness to God's saving grace in individual lives.[57]

This view explicitly rejects any idea that the teachings of scripture can be divided into religious and secular, with freedom from error claimed only for the former.

[54] Galileo Galilei, "Letter to the Grand Duchess Christina" §2, in Maurice A. Finocchiaro, ed., *The Galileo Affair: A Documentary History* (Berkeley: University of California Press, 1989), 92.

[55] *An hinc etiam more suo Scriptura tanquam infirmis infirmiter loquitur* (Augustine, *Gen. Litt.* 5.6 [PL 34:327], Taylor, *Literal Meaning of Genesis* 1:157).

[56] Benedict XV, *Spiritus Paraclitus* (1920), §19; James T. Burtchaell, *Catholic Theories of Biblical Inspiration since 1810: A Review and Critique* (Cambridge: Cambridge University Press, 1969), 232–33.

[57] Chicago Statement on Biblical Hermeneutics (1982) 1–4, http://www.bible-researcher.com/chicago1.html.

Leaving aside these historical condemnations, there are other difficulties facing a principle of limitation. Chief among these is the difficulty of defending the sharp distinction between religious claims and secular knowledge that it demands. This can easily be illustrated by reference to the Christian doctrine of original sin. Traditionally, this doctrine held that human beings are born in a state of alienation from God as a result of a historical act of rebellion committed by the first human beings, Adam and Eve. But what if human beings did not have a single origin (a doctrine known as monogenism)? What if the origin of the human race was multiple, so that there was no single couple from whom the entire human species descended? (As it happens, the current scientific consensus is monogenistic, but the question is hypothetical.) This is surely a matter that falls within the scope of natural science, but it also has implications for how one understands a central Christian doctrine.

Even assuming monogenism, many Christian thinkers have held that the Darwinian story demands a rethinking of that doctrine.[58] They have reinterpreted the biblical story of the fall as, for example, an allegory of every person's experience, or a story about wrong choices made by unspecified individuals early in humanity's history or about the dawning of the human moral sense.[59] While one or more of these reinterpretations may be theologically tenable, the point is that a reinterpretation of the doctrine was felt to be necessary. The principle of limitation implies that there should not be even an apparent conflict between religion and science, if religion were properly understood. But when religious beliefs include doctrines such as original sin, which in its traditional form made very particular assumptions about human origins, it is difficult to see how such a principle can be maintained.

It is, in any case, important to distinguish a principle of limitation from a *principle of differing purpose*. Augustine would surely have rejected the former, but would probably have accepted the latter.[60] A principle of differing purpose states that scripture is to be interpreted in light of the purpose for which it was inspired by God.

> Scripture is to be interpreted in light of the fact that its primary purpose is to bring human being to salvation, not to teach truths about the natural world.

[58] Roberts, *Darwinism and the Divine in America*, 192.
[59] Ibid., 197–98.
[60] Dawes, "Could There Be Another Galileo Case?" §§14.

This was the position endorsed by the Roman Catholic church at the second Vatican Council in 1965, which stated that

> the books of Scripture must be acknowledged as teaching firmly, faithfully and without error that truth which God wanted put into the sacred writings for the sake of our salvation [*veritatem, quam Deus nostrae salutis causa Litteris Sacris consignari voluit*].[61]

The careful wording of this statement was designed to avoid a principle of limitation-style interpretation.[62] It accepts that scripture teaches without error those truths that relate to our salvation, without excluding from that category matters that lie within the domain of the sciences.[63]

The implications of a principle of differing purpose are not immediately obvious. There exists, for example, a conservative interpretation, which does not narrow the scope of biblical authority. This insists that although the *purpose* of scripture is not to teach truths about the natural world, insofar as the Bible *does* make claims about the natural world, these are to be accepted. We find this in the early writings of Cardinal Bellarmine, whose commission condemned the Copernican opinion in 1616. Bellarmine argued that although there are many things in scripture "which were not written because it is necessary to believe them," nonetheless "it is necessary to believe them because they were written."[64] The Protestant anti-Copernican Martin Schoock expressed a similar view in 1652.[65] A more liberal interpretation of a principle of differing purpose insists that the authority of scripture should be invoked in matters of natural philosophy *only when* its natural-philosophical teachings are essential to its theological message. This view was held by a

[61] Vatican II, *Dei Verbum* §11, in Walter M. Abbott, ed., *The Documents of Vatican II* (London: Geoffrey Chapman, 1966), 119.

[62] Dawes, "Could There Be Another Galileo Case?" §§16–20.

[63] The Council cites Thomas Aquinas's *Quaestiones disputatae de veritate* 12, 2, where the same point is made explicitly.

[64] Blackwell, *Galileo, Bellarmine, and the Bible*, 32. The point is made in an almost parenthetical remark, but it is made nonetheless. In arguing (against the Protestants) that scripture was not written for the purpose of being a rule of faith (*regula fidei*), Bellarmine writes that *in Scriptura plurima sunt, quae ex se non pertinent ad fidem, id est, quae non ideo scripta sunt, quia necessariò credenda erant, sed necessariò creduntur, quia scripta sunt* (*De Controversiis Christianae Fidei* (Ingolstadt: Adam Sartor, 1605), Vol. 1, Part 1: *De Verbo Dei scripto et non scripto*, bk. 4, ch. 12).

[65] Vermij, *Calvinist Copernicans*, 250–51.

number of sixteenth-century astronomers, such as the Lutheran follower of Copernicus, Georg Joachim Rheticus,[66] and Christoph Rothmann.[67]

The last of these positions might seem very similar to a principle of limitation. But the two remain distinct. If the principle of limitation were correct, there could not be even an *apparent* conflict between the authority of scripture and the findings of science, since they represent "nonoverlapping *magisteria*." They are simply dealing with different kinds of claims: moral on the side of scripture and historical on the side of science. But if the principle of differing purpose is correct, then there could exist an (apparent) conflict. There could be such a conflict if the theological message of the Bible—that which God wanted revealed "for the sake of our salvation"—has implications within the domain of science.

(b) The Bible as "Witness to the Word"

Another way of departing from an Augustinian view of biblical authority was popularised in the twentieth century by followers of the Swiss Reformed theologian, Karl Barth. In a number of places in his *magnum opus*, the *Church Dogmatics*, Barth makes what appears to be a sharp distinction between the Word of God and sacred scripture, the former being understood as God's self-revelation. On this view, scripture cannot be simply identified with God's revelation, but is best described as a witness to that revelation.[68] There *is* a sense in which the Bible is the Word of God, since in her encounter with it, the believer experiences divine revelation. But the Bible is the Word of God only in a derivative sense, insofar as it points to the actual revelation of God in the life, death, and resurrection of Jesus.

Barth also insists that as a human witness to the divine Word, the Bible may contain errors.[69] Indeed he vigorously opposes the doctrine of biblical inerrancy, so often considered a hallmark of modern fundamentalism. On Barth's view, we cannot assume the Bible to be without error in historical

[66] *Epistola de terrae motu*, identified as Rheticus's work by Reijer Hooykaas in 1975 (Howell, *God's Two Books*, 63–64).

[67] Christopher Rothmann to Tycho Brahe, 13 October 1588, in I. L. E. Dreyer, ed., *Tychonis Brahe Dani Epistolae Astronomicae*, vol. 1 (Copenhagen: Gyldendal, 1919), 149 (Howell, *God's Two Books*, 93).

[68] Karl Barth, *Church Dogmatics*, trans. G. T. Thomson and Harold Knight, vol. 1, bk. 1 (Edinburgh: T & T Clark, 1936), 111.

[69] Karl Barth, *Church Dogmatics*, trans. G. T. Thomson and Harold Knight, vol. 1, bk. 2 (Edinburgh: T & T Clark, 1956), 530.

and scientific matters. But neither can we assume it to be without error in religious or theological matters.[70] It follows that the Barthian view is a more radical position than that which I have described as a "principle of limitation." The latter limited biblical authority to religious topics; the Barthian view does not limit biblical authority in this way, but admits the possibility of error even in matters theological.

There remains controversy regarding the interpretation of Barth's work,[71] as well as the theological acceptability of his position.[72] In particular, his admission that the biblical writers can be in error even with regard to theology raises a difficult question. How can a Christian discern the truth among the falsehoods? How could she decide what God is telling us in scripture, without falling into a doctrine of inner illumination that is frankly question-begging and which John Locke, for example, would have regarded as a form of "enthusiasm"?[73] There may be an acceptable answer to this question, even though I haven't heard one. But if there is, then the Christian who wishes to accept the Darwinian story has no need to reinterpret the (literal) meaning of the biblical text. She can freely admit that in their description of human origins the biblical writers suffered from the same limited knowledge as their contemporaries. Insofar as it is incompatible with the Darwinian story, the biblical account of human origins is mistaken.

(c) Rethinking the Status of Religious Knowledge

A third way of rethinking biblical authority involves a reassessment of the kind of knowledge that divine revelation might offer. I noted earlier that both Augustinian principles—the principle of the priority of demonstration and that of the priority of scripture—embody a tacit assumption regarding religious knowledge. They assume that divine revelation as embodied in the Bible offers us certain knowledge. This is why a literal reading of scrip-

[70] Ibid., 509.

[71] See, for example, John D. Morrison, "Barth, Barthians, and Evangelicals: Reassessing the Question of the Relation of Holy Scripture and the Word of God," *Trinity Journal*, n.s. 25, no. 2 (2004): 187–213.

[72] One of the earliest theological opponents of these ideas was Cornelius van Til: see his "Has Karl Barth Become Orthodox?" *Westminster Theological Journal* 16, no. 2 (1954): 137–45.

[73] Gregory W. Dawes, *The Historical Jesus Question: The Challenge of History to Religious Authority* (Louisville: Westminster John Knox, 2001), 239–47; Locke, *Essay Concerning Human Understanding*, bk. 4, ch. 19.

ture is thought to trump natural philosophical knowledge while the latter remains doubtful. That scripture offers certain knowledge, since it embodies the words of a deity who "can neither deceive nor be deceived," is a widely-held view among Christian thinkers.[74] But it is not universally held, having been called into question in the seventeenth century. We see this in the work of John Locke, who suggests that religious faith may offer merely probable knowledge, at least about the kinds of matters taught by scripture.

In the fourth book of his *Enquiry Concerning Human Understanding*, Locke initially offers a traditional definition of faith and reason, which reflects the Augustinian and medieval view. Reason has to do with what we can discover by our unaided intellect; faith has to do with what we can know with the aid of divine revelation.

> Reason, therefore, here, as contradistinguished to faith, I take to be the discovery of the certainty or probability of such propositions or truths which the mind arrives at by deduction made from such ideas, which it has got by the use of its natural faculties; viz. by sensation or reflection. Faith, on the other side, is the assent to any proposition, not thus made out by the deductions of reason, but upon the credit of the proposer, as coming from God.[75]

So far, so orthodox. Locke also *appears* to endorse the traditional idea that because the source of sacred doctrine is God, revelation offers us certain knowledge. There are, he writes,

> propositions that challenge the highest degree of our assent, upon bare testimony, whether the thing proposed agree or disagree with common experience, and the ordinary course of things, or no. The reason whereof is, because the testimony is of such a one as cannot deceive nor be deceived: and that is of God himself. This carries with it an assurance beyond doubt, evidence

[74] See, on the Roman Catholic side, the first Vatican Council's remark that as a result of divine revelation, we can know even truths accessible to reason "with firm certitude and no admixture of error" (Vatican I, *Dei Filius*, chap. 2), and, on the Protestant side, John Calvin's remarks on the internal testimony of the Holy Spirit (*Institutes of the Christian Religion* §1.7.5).

[75] John Locke, *Essay Concerning Human Understanding*, bk. 4, ch. 18, §2.

> beyond exception.… we may as well doubt of our own being, as we can whether any revelation from God be true.[76]

This traditional profession is not, however, Locke's last word. He immediately goes on to argue that while divine revelation could, in principle, offer certain knowledge, in practice we need reason to believe that a particular proposition is, in fact, divinely revealed. To know this, we must examine *both* the evidence of its divine origin *and* whether we have understood it correctly. If the evidence that a proposition is divinely revealed yields something less than certainty—merely probable knowledge—then we cannot claim that we know it with certainty. It, too, must be, at best, a matter of merely probable knowledge. "In these cases," Locke writes,

> our assent can be rationally no higher than the evidence of its being a revelation, and that this is the meaning of the expressions it is delivered in. If the evidence of its being a revelation, or that this is its true sense, be only on probable proofs, our assent can reach no higher than an assurance or diffidence, arising from the more or less apparent probability of the proofs.[77]

Incidentally, Locke does not deny all possibility of certain knowledge in matters of religion. On the contrary, he thinks he has a demonstrative proof of the existence of God, although most later commentators have regarded it as faulty.[78] But he seems reluctant to concede that any other religious truths can be known with this degree of confidence.

What follows from these principles? If we require human reason to discover if a particular proposition has divine authority, then the distinction between faith and reason is effectively collapsed. As Locke writes, "reason must be our last judge and guide in everything."[79] Faith can certainly take us beyond what we can know by reason, telling us of matters that God has revealed, but our act of faith is itself based on reason. Indeed, it is "nothing else but an assent founded on the highest reason."[80]

[76] Ibid., bk 4, ch. 16, §14.

[77] Ibid.

[78] Nicholas Jolley, "Locke on Faith and Reason," in *The Cambridge Companion to Locke's "Essay Concerning Human Understanding"*, ed. Lex Newman (Cambridge: Cambridge University Press, 2007), 439.

[79] Locke, *Essay Concerning Human Understanding*, bk. 4, ch. 19, §14.

[80] Ibid., bk. 4, ch. 16, §14.

As the reader may have noticed, there are two issues here, which Locke conflates but we can distinguish. The first has to do with our confidence that the Bible is indeed divinely inspired; the second has to do with our confidence that we have understood it correctly. Given his broader epistemological interests, Locke is justified in dealing with them together. But a Christian could argue that we can be entirely confident that the Bible is God's Word, even if we cannot be entirely confident we have understood it correctly,[81] at least as it relates to the question of human origins. This could lend support to what we might call a *principle of uncertain interpretation*.

> Where the literal meaning of a Scriptural passage remains uncertain, it should not be taken as evidence either for or against a scientific hypothesis or historical claim.

This view could also claim Augustinian support, for Augustine argues that Christians should not insist on what are merely interpretations of scripture when these seem contrary to sound reason.[82] Thomas Aquinas sets out a form of the principle of uncertain interpretation more explicitly, coupling this with a firm adherence to biblical authority.

> As Augustine teaches, in questions of this kind, two principles should be observed. First, the truth of Scripture must be firmly held. Second, when there are different ways of interpreting a Scriptural text, no one should hold to a particular interpretation so rigidly that, if demonstrative arguments [*certa ratio*] show it to be false, he would presume to assert that it is still the sense of the text, lest unbelievers should scorn Sacred Scripture … and the path to belief be closed to them.[83]

[81] This bears some resemblance to the Barthian view, insofar as it regards the *fact* of divine revelation as beyond doubt, even if its interpretation is questionable (Dawes, *Historical Jesus Question*, 242).

[82] Augustine, *Gen. Litt.* 1.19 (PL 34:260–61).

[83] [RESPONSIO: *dicendum quod*,] *sicut Augustinus docet, in huiusmodi quaestionibus duo sunt observanda. Primo quidem, ut veritas Scripturae inconcusse teneatur. Secundo, cum Scriptura divina multipliciter exponi possit, quod nulli expositioni aliquis ita praecise inhaereat quod, si certa ratione constiterit hoc esse falsum, quod aliquis sensum Scripturae esse asserere praesumat, ne Scriptura ex hoc ab infidelibus derideatur, et ne eis via credendi praecludatur* (Aquinas, *Summa theologiae* 1a, 68, 1).

More recently, and from the other side of the Protestant-Catholic divide, we find what is essentially the same view expressed in a 1991 essay by Alvin Plantinga. "Scripture," he writes,

> is inerrant: the Lord makes no mistakes; what he proposes for our belief is what we ought to believe. Sadly enough, however, our grasp of what he proposes to teach is fallible. Hence we cannot simply identify the teaching of Scripture with our grasp of that teaching; we must ruefully bear in mind the possibility that we are mistaken.[84]

Given the possibility that we have failed to understand the true meaning of scripture, we should not assume that what we understand as its (literal) sense should take priority over our best-supported scientific theories.

As it happens, Plantinga is not convinced that the Christian *is* justified in accepting Darwinian theory. He is not, himself, a theistic evolutionist.[85] But a Christian who *is* convinced by the evidence in support Darwin's theory could make use of this idea. She could argue that an interpretation of scripture that clashes with Darwin's theory may be mistaken, for even if we can be certain about the divine origin of the Bible, we cannot (always) be certain about its meaning.

Plantinga certainly has no doubts about the divine inspiration and authority of the Bible. Is this attitude defensible? As Locke recognizes, one can certainly offer arguments in support of biblical authority. But there is something problematic about the idea that these could result in certain knowledge, at least on the assumption that one should avoid circular reasoning.[86] But

[84] Alvin Plantinga, "When Faith and Reason Clash: Evolution and the Bible," *Christian Scholar's Review* 21, no. 1 (1991): Sect. I, reproduced at http://www.asa3.org/ASA/dialogues/Faith-reason/CRS9-91Plantinga1.html.

[85] Plantinga insists on assessing the probability of the evolutionary hypothesis *on the assumption that the Christian God exists*. This has to do with his criticism of what he calls the "methodological naturalism" of the sciences and his advocacy of a distinctively theistic form of science (against which see Gregory W. Dawes, "In Defense of Naturalism," *International Journal for Philosophy of Religion* 70, no. 1 (2011): 3–25). Given his theistic assumptions, Plantinga believes that the hypothesis of special creation is (a little) more likely than that of evolution.

[86] Circular reasoning, such as appealing to biblical authority in support of biblical authority, seems very common in religious contexts: see Ilkka Pyysiäinen, "True Fiction: Philosophy and Psychology of Religious Belief," *Philosophical Psychology* 16, no. 1 (2003): 116–17. Plantinga claims to avoid circular reasoning by invoking what he calls a "Reformed episte-

if such arguments lead to, at most, a probable conclusion, then Locke's considerations will come into play. For this reason, Locke's own position seems to be the more thoroughgoing and defensible one.

If one adopts a Lockean view of faith and reason, coupled with a modest estimate of what reason can demonstrate in this realm, then the Augustinian hermeneutical principles will seem far less compelling. What one is left with, in the case of an apparent conflict between scientific theories and the literal sense of the biblical text, is a conflict between two sources of knowledge, neither of which can claim to be beyond doubt.[87] In these circumstances, the theological bar to adopting a non-literal interpretation of sacred scripture is much lower than it was for Augustine and his successors. It follows that even if a literal interpretation of Genesis 1–3 is untenable, given the truth of the Darwinian story, there is nothing to prevent the Christian from offering a non-literal interpretation, so as to avoid conflict. All that would be required is that the degree of confidence with which we can accept the Darwinian story exceeds the degree of confidence with which we can accept the literal meaning of the text. If we have any serious reason to doubt (a) that Genesis 1–3 embodies a divine revelation or (b) that we have understood its literal meaning correctly, then it would be foolish to reject a well-established scientific theory in favour of a literal interpretation of Genesis.

Conclusion

So, can a Christian accept Darwin's theory? This one question embraces a range of others, theological, philosophical, and hermeneutical. My aim in this essay has been to show that the hermeneutical question is a more difficult one than many theistic evolutionists appear to realize. If one wishes to maintain that the Bible offers certain knowledge—that its authority "is greater than [that of] all human ingenuity"[88]—then one seems committed to something like the Augustinian approach to biblical interpretation. On

mology" (*Warranted Christian Belief* (New York: Oxford University Press, 2000), 352). But this strategy has its own problems, a discussion of which would take me far from my present topic. (See, for instance, John Bishop and Imran Aijaz, "How to answer the *de jure* question about Christian belief," *International Journal for Philosophy of Religion* 56, nos. 2/3 (2004): 109–29.)

[87] As it happens, this seems to be the position adopted by philosopher Michael Ruse (*Can a Darwinian Be a Christian?* 65), although it is far from clear that Augustine would (as he suggests) have endorsed it.

[88] Augustine, *Gen. Litt.* 2.5 (PL 34:267), Taylor, *Literal Meaning of Genesis* 1:52.

this view, the literal sense of the biblical text can be set aside only if we have evidence that proves, beyond doubt, that it is untenable. But the large-scale theories of modern science, such as Darwin's, cannot offer this degree of certainty. It follows that a Christian who holds to the Augustinian view of biblical authority will have difficulty justifying a departure from the literal meaning of Genesis 1–3.

One might argue that even a Darwinian could hold to the literal sense of Genesis 1–3, if the phrase "literal sense" is understood as broadly as medieval writers did. But it is doubtful if even a broad use of "literal sense" would permit the degree of reinterpretation that is required. If it does not, then the theistic evolutionist will need to abandon an Augustinian view of biblical authority. There are at least three alternative views on offer, two of which involve a frank admission that the biblical account of human origins may be mistaken.

The first option admits the possibility of error, in matters of science or history, by adopting a *principle of limitation*, which limits biblical authority to religious matters. But not only has this principle met with vigorous resistance from conservative Christians, but it is not clear that one can make so sharp a distinction between matters of religion and matters of science. So this option seems unpromising. There is another view with which it is often confused, which I have described as a *principle of differing purpose*. While this seems more defensible, it is not clear if this would permit an admission that the biblical writers were in error, even in matters of natural philosophy.

A second option makes a sharp *distinction* between the Word of God and the fallible human words of the Bible. This would, of course, allow an admission of error, in theological matters as well as in matters of science or history. But it has problems of its own. In particular, it raises the question of how a Christian can discover divine truth amongst the human errors that are found in scripture. In any case, what does it mean to be certain about the fact of divine revelation, if we cannot be certain about anything that the Bible asserts?

A third option seems more promising. It is the adoption of a more modest religious epistemology such as that outlined by John Locke. Given a Lockean view of the Bible and its interpretation, the theological bar to the reinterpretation of scripture is much lower. The Christian might distinguish the two issues that Locke conflates: that of biblical authority and that of biblical interpretation. She could hold that we can be certain that the Bible is God's Word, without being certain that we have understood its meaning

correctly. But if she wishes to avoid the accusation that her religious faith is an arbitrary commitment, she will need to explain why she believes the Bible to be God's Word. Locke's own religious epistemology seems a more thorough-going solution to the problem.

The problem with a consistent Lockean view is that it entails the abandonment of religious claims to certainty: divine revelation no longer offers a degree of certainty that exceeds that of human reason. It also entails a frank recognition that faith and reason are not entirely separate sources of knowledge, since, at the end of the day, fallible human reason is all we have. Reason may be a "dim candle," as Locke remarks, but "dim as it is, it is the best light available to us."[89] Whether religious believers are ready to make such concessions is not a question that I, as a non-believer, feel able to answer. But if they wish to be both Darwinians and Christians, the ball is in their court.

[89] Jolley, "Locke on Faith and Reason," 453.