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## Christianity and the Philosophy of Science

**Science and Christianity: The Three Big Questions**

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*Josh A. Reeves*



## *Science and Christianity: The Three Big Questions*

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**Abstract:** I will present in this paper three major questions that shape background assumptions on matters of science and Christianity. The questions are the following: Does the Bible contain modern scientific theories, how much can non-Christians know, and how far does science reach? Depending on how one answers these questions, Christians will likely reach different conclusions about scientific data, regardless of how carefully they research the topic. By examining important background assumptions, my intent is to help make conversations about Christianity and science more fruitful.

**Key Words:** Christianity and science, biblical interpretation, concordism, theistic science, philosophy of science

### **Introduction**

There has been a lot of commentary recently in the media concerning the rise of a post-truth society, where the public cannot even agree upon facts that could help decide between competing theories. The reality is this divide—where competing groups reside in different intellectual universes—has been a feature of evangelical views of science for decades. Conservative Christians have long objected to claims backed by scientific consensus, such as the age of the earth or the common ancestry of biological life, offering alternative theories for scientific observations.

Christians who wish to engage modern science from a theological perspective have two general options from which to pick: either the Christian community is embarrassing itself by not accepting what scientists have discovered about the world, or science itself is untrustworthy because naturalistic assumptions distort many scientific conclusions. Like some who heard Jesus's parables and did not understand (Matt 13:10-23), scientists may have eyes but lack the ability to truly see. Which option should the discerning Christian choose? Does one side with mainstream science because it is, despite fundamentalist worries, the most reliable way of discovering truths about the natural world? Or should Christians hold onto traditional beliefs despite mockery from the "worldly wise," whose foolishness God will reveal on the last day?

One way to pick between these competing options is to examine how each side handles a current controversy between science and Christianity. Read different

books about evolution, for example, and decide for yourself what you believe. Are the individual arguments for evolution persuasive? Though this approach has value, in my experience teaching undergraduates, this is not the best strategy for beginners. There are often many unexamined background assumptions that skew any independent assessment one might make. Without enough background knowledge, one cannot offer a fair judgment, relying upon unarticulated intuitions instead of careful consideration of the relevant arguments.

In this paper, I will present what I judge to be the three major questions that shape one's background assumptions on matters of science and faith. Depending on how one answers these questions, Christians will reach different conclusions about the scientific data, regardless of how careful or intensive they research the topic. In other words, without a more careful consideration of the presuppositions that shape the way Christians view modern science, debates on the age of the earth or evolution will generate little agreement from opposing sides, since their starting assumptions begin too far apart. By examining important background assumptions, my intent is to help make conversations about matters of science and faith more productive.

### **Question One: Does the Bible Contain Modern Scientific Theories?**

As one might expect, the biggest issue that separates Christians over science concerns biblical interpretation. I avoid framing the issue about whether one should accept the Bible as literally true because, among other things, this question does not respect the diversity of genres in the Bible. The Bible contains poetry, stories, proverbs, parables, visions, and so forth; to insist that each passage must be rendered literally is to misread the text in many circumstances. For example, to conclude from references to the hand of God (Psalm 145:16, Exodus 33:22-23) in the Old Testament that God has an actual body is to miss the author's intended meaning. The author's intended meaning is at issue in debates over interpreting Genesis: are the first chapters of the Bible a reasonably accurate description of the origins of the earth, or are they primarily poetic in nature, meant to provide a theological response to the origin stories of the cultures surrounding the ancient Israelites?

A more useful question is the following: "Does the Bible contain modern scientific theories?" Do we have a Bible that is, by supernatural guidance, correct in every detail on which it touches, and thus whose divine origin can be proven by the objective standards of science? Or do we have an inspired text whose outlook is conditioned by the language, culture, and views of the natural world at the time it was originally written? Advocates of the former position are called concordists, who believe the Bible must agree—be in concord with—all the findings of contemporary science.<sup>1</sup>

1. John Walton, *The Lost World of Genesis One: Ancient Cosmology and the Origins Debate* (Downers Grove, Ill: IVP Academic, 2009), 19. Walton himself is not a concordist.

Many conservative Christians are concordists who approach the Bible as a supernatural text. One of the founders of the scientific creationist movement, Henry Morris, says for example: “Whenever [the Bible] deals with scientific or historical matters of fact, it means exactly what it says and is historically accurate. . . . The Bible is a book of science!”<sup>2</sup> Another advocate of this general approach is the astronomer, Hugh Ross, founder of the old-earth creationist ministry *Reasons to Believe*. He says,

The justification I hear more often than any other for leaving the Bible behind is that ‘everyone knows’ it is antiquated and full of scientific nonsense. . . . Amazingly, when I ask people to cite examples, many cannot bring to mind even one. . . . Genesis chapters 1-11 present a history of the universe, Earth, life, and early humanity. With the help of many remarkable advances in astronomy, physics, geo-physics, chemistry, paleontology, biochemistry, and anthropology, the words of the first eleven chapters can be subjected point by point to rigorous investigation. They can be verified or refuted with greater precision and to a greater depth than previous generations might have imagined possible.<sup>3</sup>

For Morris, Ross, and many other evangelicals, one cannot say the Bible is true and trustworthy unless it is correct in its scientific details.

Perhaps the strongest argument in favor of a concordist approach is that it provides the most natural way to read the text, which is why many Christian commentators throughout church history have assumed that Genesis can be reconciled with the dominant cosmology of their own period. And when the answer of how to reconcile them was unclear, many biblical interpreters assumed it was due to a lack of human understanding of the physical world. For example, Luther struggled to make sense of the water that exists above the firmament (Gen 1:4) in light of Aristotelian cosmology. Unable to find a suitable answer, he said: “But Moses says in plain words that the waters were above and below the firmament. Here I, therefore, take my reason captive and subscribe to the Word even though I do not understand it.”<sup>4</sup> Concordists would also argue that their way of reading Scripture provides an important way of reaching secular scientists and other nonbelievers for the gospel: if the Bible gets its scientific facts right, then we can trust it is divine in origin.

For advocates of the non-concordist view, the attempt to find modern scientific theories in Scripture does not respect the original meaning of God’s Word or God’s manner of giving revelation, which is accommodated to the cultures receiving it. While it is always possible given human interpretive ingenuity to find modern

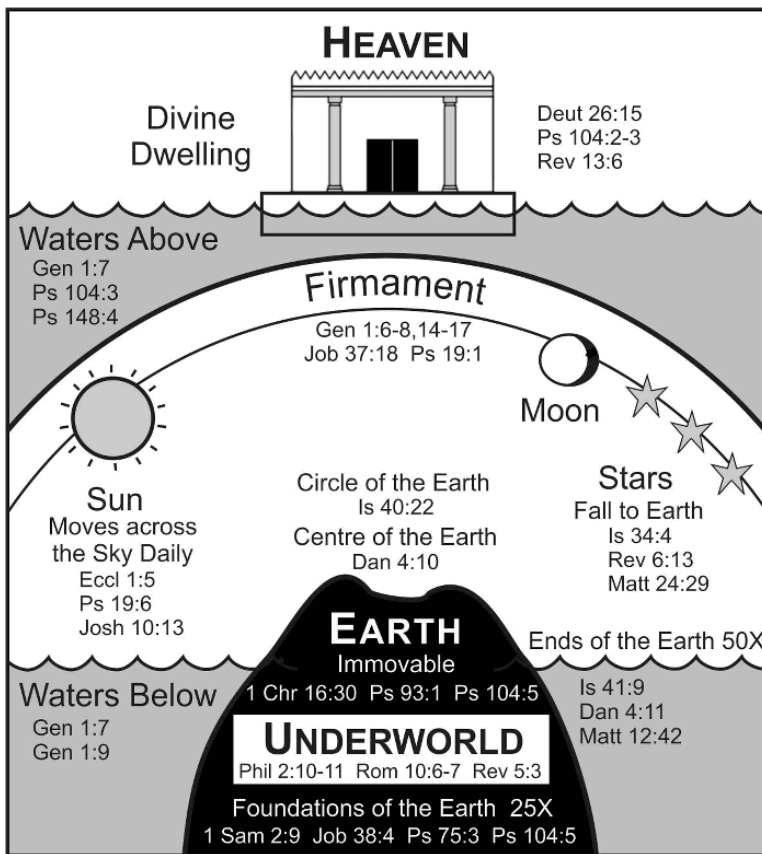
2. Henry M. Morris and Henry M. Morris III, *Many Infallible Proofs: Evidences for the Christian Faith* (Green Forest, AR: New Leaf, 1974), 238.

3. Hugh Ross, *Navigating Genesis: A Scientist’s Journey through Genesis 1-11*, ed. Kathy Ross, Joe Aguirre, and Sandra Dimas (Covina, CA: RTB, 2014), 9.

4. As quoted in Kyle Greenwood, *Scripture and Cosmology: Reading the Bible Between the Ancient World and Modern Science* (Downers Grove, Ill: IVP Academic, 2015), 153.

scientific theories hidden in the biblical text, this gives to Scripture meanings that would not be recognizable to its original audience.

The easiest way to see the arguments for a non-concordist approach to Scripture is to examine the view of nature (i.e., the cosmology) assumed by its writers, who held views that we could not possibly accept today.<sup>5</sup> Here are a sampling of verses related to cosmology: the earth does not move (1 Chr 16:30; Ps 93:1), the earth has foundations (Ps 104:5), the earth has ends (Ps 48:10, Dan 4:10-11), the earth is circled by a circumferential sea (Prov 8:27, Job 26:10), the earth is covered by a hard dome (i.e., firmament) (Gen 1:4), heaven is a physical place in sky (Isa 40:22, Ps 104:2-3, Deut 26:15), stars are in the firmament (Matt 24:29, Rev 6:13), and there is an underworld (Num 16:28ff, Phil 2:10). Putting all these different descriptions of the natural world together, one gets the image of a three tiered-universe, as pictured below.<sup>6</sup>



5. Denis Lamoureux, *Evolution: Scripture and Nature Say Yes* (Grand Rapids, MI: Zondervan, 2016). See also Denis Lamoureux, "Science-Religion Web Lectures," *Science-Religion Web Lectures*, accessed May 5, 2017, <https://sites.ualberta.ca/~dlamoure/wl.html>.

6. The figure is found here: BioLogos, "Interpreting Adam: An Interview with Denis Lamoureux, Part 1," *BioLogos*, accessed May 5, 2017, <http://biologos.org/blogs/jim-stump-faith-and-science-seeking-understanding/interpreting-adam-an-interview-with-denis-lamoureux-part-1>.

From a non-concordist perspective, there are clearly many places in Scripture that assume an ancient view of the natural world, one that is incompatible with modern science. Many Christians today read these passages poetically, assuming that the biblical writers generally held views of the universe that we would accept today. But as many Old Testament scholars have demonstrated, the Israelites viewed the universe in the same prescientific way as the cultures surrounding them.<sup>7</sup> As John Walton summarizes the non-concordist argument, “[the] Ancient Israelites did not know the stars were suns; they did not know that earth was spherical. . . . They believed that the sky was material (not vaporous). . . . Most importantly, God did not think it important to revise their thinking. There is not a single instance in which God revealed to Israel a science beyond their own culture.”<sup>8</sup> Such a view need not be seen as attacking the truthfulness of Scripture. Charles Hodge, for example, was a leading nineteenth-century theologian at Princeton Theological Seminary and was known for defending the doctrine of biblical inerrancy. He said,

As to all matters of science, philosophy, and history, [the sacred writers] stood on the same level with their contemporaries. They were infallible only as teachers, and when acting as the spokesmen of God. Their inspiration no more made them astronomers than it made them agriculturists. . . . [W]e must distinguish between what the sacred writers themselves thought or believed, and what they teach.<sup>9</sup>

Hodge himself argues that the writers of Scripture believed the sun moved around the earth but they nowhere taught this as part of Christian doctrine. If one insists that the Bible’s trustworthiness depends on its scientific accuracy, then one must either ignore these passages or creatively interpret them in ways that the original audience would not have understood.

In my opinion, the contribution of biblical scholarship to understanding the background and context of Scripture has changed the terms of the debate. I do not see in Scripture the mere use of observational language (e.g., we say the sun rises because that is what it looks like from a human perspective), but a cosmology that goes beyond everyday experience. It is not clear to me, therefore, how one can be a consistent concordist without also believing in a stationary earth with God residing above the firmament in the heavens.

7. See Greenwood, *Scripture and Cosmology*, chapter 2.

8. Walton, *The Lost World of Genesis One*, 19.

9. Charles Hodge, *Systematic Theology: Volume One* (New York: Charles Scribner, 1871), 165, 171.

## **Question Two: How Much Can Non-Christians Know?**

In the contemporary world, scientists are normally recognized as the foremost authority for understanding how nature works. When scientists make claims about the world, however, there is always a question of their authority to do so: who are they, what do they know, and why should they be trusted? As polling data shows, American evangelical Christians appear to be especially prone to expressing doubts about scientific theories—even those that have achieved consensus within the scientific community—and therefore to questioning the expertise of those proposing the theories. For example, in the 2015 *Religion, Values, and Climate Change Survey*, 64% of evangelicals were somewhat or very unconcerned with climate change; this constituted the highest number of any group surveyed.<sup>10</sup> Despite a generally positive attitude towards science itself—Christians frequently use scientific arguments to bolster theological claims—many Christians argue that mainstream scientists cannot be trusted in their conclusions about the natural world.

What explains this skepticism? The hostility of American evangelicals towards scientific expertise appears to be rooted in part in a particular theological epistemology, which says creation cannot be properly understood apart from the indwelling of the Holy Spirit and the knowledge given by revelation in the Bible.<sup>11</sup> Thus, the second big question between science and Christianity is: How much can non-Christians know about the world?

Christian skepticism about secular learning can be traced back to the New Testament. The Apostle Paul, for example, argues in First Corinthians (1:20-21): “Where are the wise? Where is the teacher of the law? Where is the philosopher of this age? Has not God made foolish the wisdom of the world?” Taken on its own, this verse might suggest that secular knowledge is dangerous because philosophers lack God-given insight into the nature of reality. This New Testament theme about not trusting worldly wisdom reappears often in Christian history, as exemplified by the famous question posed by Tertullian in *The Prescription Against Heretics* around the beginning of the third century: “What has Athens to do with Jerusalem?” (i.e., classical philosophy with Christian doctrine). It can also be seen in Luther’s attack on Roman Catholicism as the “church of Aristotle.”<sup>12</sup> Pagan philosophy could be seen as

10. Robert P. Jones, Daniel Cox, and Juhem Navarro-Rivera, “Believers, Sympathizers, & Skeptics Why Americans Are Conflicted about Climate Change, Environmental Policy, and Science: Findings from the PRRI/AAR Religion, Values, and Climate Change Survey” (Washington, D.C.: Public Religion Research Institute, 2014), available at <https://www.prrri.org/wp-content/uploads/2014/11/2014-Climate-Change-FINAL1-1.pdf>.

11. For the full argument, see Josh Reeves, “Theology and the Problem of Expertise,” *Theology Today* 69.1 (February 2012): 34–42.

12. Peter Harrison, “Philosophy and the Crisis of Religion,” in *The Cambridge Companion to Renaissance Philosophy*, ed. James Hankins (Cambridge: Cambridge University, 2007), 236.

an unhelpful distraction from divinely revealed knowledge and encouraged the vice of curiosity, which had such tragic results for the occupants of the Garden of Eden.<sup>13</sup>

Many Christians believe that in the fallen world in which we live, the Bible can only be seen properly by those indwelt by the Spirit, those who now have the “eyes to see.” It is the Holy Spirit who bears witness to the Bible’s divine origin and its essential message, meaning that biblical doctrine should not be abandoned when met by skepticism and ridicule by nonbelievers. Thus as J. P. Moreland argues: when confronted with a theory of evolution, which is accepted by the overwhelming consensus of biologists, Christians should not relinquish their beliefs but instead hold their ground so that they may eventually win the “argument due to hard-hitting scholarship and confidence in the Bible.”<sup>14</sup> By revising their beliefs in light of modern science, theistic evolutionists “inexorably” give off a message that theology and biblical teaching do not give us knowledge. Moreland asks, “Do we . . . set aside or revise two thousand years of Christian thinking and doctrinal/creedal expressions in order to make Christian teaching acceptable to the neuroscience department at UCLA or the paleontologists at Cambridge?”<sup>15</sup> To revise one’s thinking is to acknowledge that biblical interpreters throughout history have erred and thus have not been guided by the Holy Spirit.

Many Christians who promote skepticism towards science use Augustine to support their views. The philosopher Alvin Plantinga has argued, for example, for what he calls “Augustinian science,” which is science that is used “in service of a broadly religious vision of the world.”<sup>16</sup> From Augustine, says Plantinga, we learn that human history is the struggle between the City of God and the Earthly city, with no neutral ground in between. Because there is no such thing as a neutral science, the Christian cannot automatically accept the word of scientists. The Christian community should undertake its own type of science, which looks at the human and natural sciences “from an explicitly theistic or Christian point of view.”<sup>17</sup> From this perspective, Christians should mistrust scientists because they do not know what they claim to know.

Against the view of Moreland and Plantinga, I would argue that they underappreciate the epistemic abilities of non-Christians, for in practice Christians operate on the basis of secular scientific experts all the time. Most of the facts that we believe about the natural world—that water is composed of one hydrogen and two oxygen atoms or that we live in a solar system in a vast expanse of space—are beliefs that we

13. Peter Harrison, “Curiosity, Forbidden Knowledge, and the Reformation of Natural Philosophy in Early Modern England,” *Isis* 92 (2001): 267.

14. J. P. Moreland, “Theistic Evolution, Christian Knowledge and Culture’s Plausibility Structure,” *Journal of Biblical and Theological Studies* 2.1 (2017): 5.

15. *Ibid.*, 6.

16. Alvin Plantinga, “Science: Augustinian or Duhemian?,” *Faith and Philosophy* 13, no. 3 (1996): 370.

17. *Ibid.*, 369.



have accepted from scientific experts who often do not share my Christian worldview. Why trust scientists in one area (e.g., a new medical treatment or a new technology) but not another? Or to relate this to Paul's argument in First Corinthians, why assume that scientists represent the false wisdom of this world in the twenty-first century? Are doctors also the worldly wise? Stock brokers? Car mechanics? A generalized skepticism towards non-Christian learning leads to untenable conclusions that are inconsistent with how Christians live their lives. I would agree that one should not give scientific experts a philosophical blank check, but the evaluation of scientific theories is best done by Christians who have the skills and competence to assess the current state of evidence, rather than from those casting stones from outside the discipline. The idea that scientists represent the ignorant wisdom of the world is what needs to be proven, rather than automatically assumed.

Framing the issue as between the Holy Spirit/Bible and foolish human opinion oversimplifies complex issues and can give us false confidence in our opinions. In other words, we think we are trusting the Bible when in fact we are trusting our own "commonsense" view of the world. A student of Martin Luther reported him to say this about Copernicus' theory that the earth orbits the sun: "So it goes now . . . Whoever wants to be clever . . . must do something of his own. This is what that fellow does who wishes to turn the whole of astronomy upside down. . . . I believe the Holy Scriptures, for Joshua commanded the Sun to stand still, not the Earth."<sup>18</sup> Like Moreland, Luther frames the problem as whether one should believe human opinion or divine revelation. Upon retrospect, however, we can see that Luther should have been more open to the arguments put forth by Copernicus and other astronomers. Science should not dictate the meaning of Scripture to the church, but since nature is another book written by God, we should not expect places where they disagree. Whenever we have scientific results which conflicts with the Bible, it is the job of the interpreter to bring them back into alignment. Thus with the benefit of science and hindsight, we no longer have a problem recognizing the earth is stationary is not what Scripture teaches. Science can lead us to approach the Bible with new questions, making sure we are not imposing our own expectations onto the text.

I also do not think Augustine would be an advocate of "Augustinian science" as described by Plantinga. Augustine himself recognized that a strong skepticism to scientific inquiry could injure the faith: if Christians cannot be trusted on what can be empirically verified, then how can they be trusted on spiritual matters? Augustine left a rival religion to Christianity after he found its leader proffering bad science, saying, "It was providential that this man talked so much about scientific subjects, and got it wrong."<sup>19</sup> The inability to see truth in the publically-accessible physical realm, which

18. Owen Gingerich, *The Book Nobody Read: Chasing the Revolutions of Nicolaus Copernicus* (New York: Bloomsbury, 2009), 136. For questions about what Luther actually said, see Greenwood, *Scripture and Cosmology*, 171.

19. Saint Augustine, *Confessions*, trans. Maria Boulding (Hyde Park, NY: New City, 1996), 118.

was put forth by the scientists of Augustine's period, meant that this religious leader was not to be trusted about truths in the spiritual realm. More generally, Augustine recognizes that we can draw conclusions about nature based only on reason and experience, without the help of divine revelation. As he says,

Often a non-Christian knows something about the earth, the heavens, and the other parts of the world, about the motions and orbits of the stars and even their sizes and distances . . . and this knowledge he holds with certainty from reason and experience. It is thus offensive and disgraceful for an unbeliever to hear a Christian talk nonsense about such things, claiming that what he is saying is based in Scripture.<sup>20</sup>

It is not only disgraceful when Christians spread scientific misinformation to nonbelievers, but it can cause grave spiritual injury when believers discover they have accepted bad scientific information from their pastor or church. If Christians ignore what scientists and other expert communities have discovered about the world, they do so at the peril of the church. Unless the church can bring itself to trust in the best knowledge of the modern world, the modern world will have little reason to trust in return.

I thus would resist the call for Christians to start their own "theistic science." A better position is to affirm that secular scientists may not be wrong when they make empirical claims (i.e., inference drawn from reason and experience), yet they fail to see the true spiritual significance of what they study. In other words, they do not comprehend the spiritual realities to which the physical realm bears witness, making secular scientists often wrong when they try to construct a worldview based on science.

### **Question Three: How Far Does Science Reach?**

Scientists have a tremendous amount of prestige and authority in Western culture. But what is it, if anything, that makes science unique from other types of knowledge? By what criterion does one distinguish science from pseudoscience? These questions address what philosophers call the demarcation problem. The most common way to locate the essence of science has been to connect it to a theory of scientific method. One can have confidence that scientific knowledge is progressing towards truth because it is guided by a unique set of procedures for generating or evaluating knowledge. But four hundred years after the Scientific Revolution, there is no consensus about the nature of science or its methods, and there likely never will be one. There is not a single method that underlies all the different things scientists do, rather methods

20. Saint Augustine, *On Genesis: A Refutation of the Manichees, Unfinished Literal Commentary on Genesis, The Literal Meaning of Genesis* (Hyde Park, NY: New City, 2004), 186.

change from discipline to discipline, or even theory to theory.<sup>21</sup> What makes science “science” is not itself a scientific question, which is why most natural scientists do not waste time trying to answer it.

But it is nevertheless valuable for Christians to reflect on the nature of science, thinking especially about how much of the world is describable in scientific terms. This is what is meant by the question: “How far can science reach?” Instead of attempting to give a strict definition of science, I will identify two styles of doing science—rationalist and empiricist—that have different ambitions with respect to the scope of scientific theories.<sup>22</sup> Both styles are evident in modern science, even though they cannot be reconciled. And each has differing implications for the relationship of Christianity and science.

I take these styles from the work of Francis Bacon (1561-1626) and Rene Descartes (1596-1650), who were among the earliest advocates of new strategies for gaining knowledge of nature and were frequently celebrated by proponents of the Scientific Revolution. Contemporary accounts of scientific methodology often take as a starting point the work of the “two greatest philosophers of the scientific revolution.”<sup>23</sup>

Following Descartes, rationalist science has three distinctive characteristics. First, the goal of science is to provide a worldview. Placed in his historical context, Descartes was offering a cosmological system, the first complete alternative since the time of Aristotle.<sup>24</sup> Second, Descartes has confidence in the ability of reason to discern the hidden structure of reality, even if it conflicts with everyday experience. Because there is only one kind of matter underlying physical processes, phenomena were to be explained in terms of the discipline of mechanics: the shape, size, quantity, and motion of particles of matter.<sup>25</sup> Many natural philosophers found mechanistic explanations so intuitive that it became the dominant system of nature in the early modern period despite its puzzling consequences for biology—are the actions of one’s pet not, in principle, different from the action of a magnet? The third and final characteristic is that scientific explanations should be timeless, universal, and necessarily certain. If

21. Nancy Cartwright *et al.*, *Otto Neurath: Philosophy Between Science and Politics* (Cambridge: Cambridge University Press, 1996), 253.

22. Josh Reeves, “On The Relation Between Science and the Scientific Worldview,” *The Heythrop Journal* 54.4 (July 1, 2013): 554–62.

23. Gary Gutting, “Scientific Methodology,” in *A Companion to the Philosophy of Science*, ed. W. H. Newton-Smith (Oxford: Blackwell, 2000), 425.

24. Stephen Gaukroger, *The Emergence of a Scientific Culture: Science and the Shaping of Modernity, 1210-1685* (Oxford: Clarendon, 2006), 321.

25. John Henry, *The Scientific Revolution and the Origins of Modern Science*, 2nd ed. (New York: Palgrave, 2001), 69.

matter is extended in three dimensions, then Descartes believed that physics can be reduced to geometry, and thus physics can have the same deductive certainty.<sup>26</sup>

Francis Bacon helped to articulate empiricist science, which differs on all three points. First, for Bacon, the goal of science is not to give a worldview but to offer practical knowledge and “good fruits” such as technology.<sup>27</sup> Bacon went so far as to deny that there could be knowledge for its own sake, or truth that does not result in action. Second, empiricist science was suspicious of philosophical assumptions contaminating one’s observations. Instead of offering universal generalizations for what must happen, they focused on what had happened in particular cases. Members of the Royal Society embraced Bacon on this point and consequently tended to disdain large-scale theories and speculations about worldview in favor of close examinations of discrete, historical events.<sup>28</sup> Finally, knowledge claims must always be backed by empirical facts. Followers of Bacon promoted a philosophy that preferred facts over hypotheses, the former of which are adequately witnessed and theory-neutral statements of natural events, whereas the latter was conjecture, even if well-founded.<sup>29</sup>

Rationalist and empiricist styles of science differ on how much of the world can be explained from a scientific perspective. Rationalist science tends to equate knowledge with scientific knowledge and thus leads easily to scientism and atheism. For example, a rationalist might argue that those things humans find most significant in the world—such as the love of our parents or children—are “nothing but” blind chemical reactions in the brain.<sup>30</sup> They thus reject explanations for natural phenomena that do not fit with their explanatory principles, which leads them to postulate mechanistic accounts even on subjects where we still do not have a good scientific model of what is happening.

There are also many Christians who would favor an expansive view of science, even if they do not accept every aspect of rationalist science. When Christians argue that the Bible can be validated according to the exacting standards of contemporary science, they assume that science is the most rigorous form of knowledge. As the scientific creationist Henry Morris says, “‘Science’ is knowledge, and the Bible is a book of true and factual knowledge throughout, on every subject that it deals.”<sup>31</sup>

26. Margaret J. Osler, *Divine Will and the Mechanical Philosophy: Gassendi and Descartes on Contingency and Necessity in the Created World* (Cambridge: Cambridge University Press, 2004), 204.

27. Gaukroger, *Emergence of a Scientific Culture*, 164ff.

28. Perez Zagorin, “Francis Bacon’s Concept of Objectivity and the Idols of the Mind,” *British Journal for the History of Science* 34.4 (2001): 384.

29. Peter Dear, *Revolutionizing the Sciences: European Knowledge and Its Ambitions, 1500-1700*, 2nd ed. (Princeton, NJ: Princeton University Press, 2009), 62.

30. Steven Weinberg, “Without God,” *The New York Review of Books*, September 25 2008, <http://www.nybooks.com/articles/2008/09/25/without-god/>.

31. Morris and Morris III, *Many Infallible Proofs*, 238.

When Christians argue for theistic science, they are arguing for the melding together of science and Christianity into a single worldview.

For those who favor the empiricist style, the goal is not to show how theology can meet the standards of scientific evidence, but to keep science within its proper boundaries. For empiricists, science deals with reproducible phenomena, using terms and concepts that can be clearly defined. Because of this limitation, theological statements, along with most other aspects of human reasoning about the world, do not meet the standards of science. As the physicist Ian Hutchinson says, “the process of describing the world in reproducible terms appears to have limits, fundamental limits, that are built into the fabric of the universe.”<sup>32</sup> The empiricist style displays what John Polkinghorne calls “bottom up thinking.”<sup>33</sup> Bottom up thinkers try to start from experience and move from experience to understanding, even while recognizing the multi-level character of the world in human experience. In other words, there are many windows “through which we may look out onto the world of which we are inhabitants.”<sup>34</sup>

So how much of the world is describable in scientific terms? Does the word “science” extend only to those parts of reality that we can quantify or measure? Or does it refer to any belief rigorously grounded in evidence? The answer that Christians give to this question will dictate the type of connections that one attempts to build between theology and science. I myself favor the empiricist view as expressed here by the philosopher of science, Nancy Cartwright: “It is my underlying view that it is this quite reasonable demand that scientific claims be precise and unambiguous that imposes limits on how far the sciences can stretch, for not much of the world lends itself to this kind of description.”<sup>35</sup> If this is correct, then much of the science-faith discussion needs to combat overly ambitious scientific explanations, to prevent science from slipping into idolatry. As I see it, the job of Christians is not to tell scientists what they should discover in their research, but be a constant reminder of what they are not yet, and likely will never, be able to explain.

## **Conclusion**

Christians today live in an age of science. Whether we agree or not, from the perspective of an increasingly secular culture, science often represents one of the most powerful achievements of our species. If we thus are going to reach that culture for Christ, Christians need to have a balanced position about science, one that can celebrate and

32. Ian Hutchinson, *Monopolizing Knowledge* (Belmont, MA.: Fias, 2011), 39.

33. John C. Polkinghorne, *The Faith of a Physicist: Reflections of a Bottom-Up Thinker* (Princeton: Princeton University Press, 2014), 4.

34. John C. Polkinghorne and Michael Welker, *Faith in the Living God: A Dialogue* (Minneapolis, MN: Fortress, 2001), 101.

35. Nancy Cartwright, “The Limits of Causal Order, from Economics to Physics,” *Perspectives on Science* 7.3 (1999): 318.

affirm the successes of science as good gifts from God, while also resisting when it oversteps its boundaries to become a rival worldview. How can we engage science from distinctively Christian perspective without giving in to anti-intellectualism? When young Christians walk away from their faith because of science, as many polls show, was it because they were not taught strictly enough how to defend traditional beliefs about Adam or Eve or the age of the earth? Or is it because the church today is failing to accommodate itself to new evidence, making the same mistake that the Catholic Church committed against Galileo some four hundred years ago? And how can Christians without any scientific training be expected to speak with authority about the strengths or weaknesses of current scientific theories such as evolution, the big bang, the age of the earth, or climate change?

These are difficult questions that call for wisdom, humility, and discernment, traits that are easily lost in the culture wars. As a first step, at least, I hope Christians recognize the validity of the three questions addressed in this paper, and acknowledge that faithful followers of Jesus can answer them in different ways.