

SCIENCE AND SCRIPTURE

The intention of the Holy Ghost is to teach us how one goes to heaven, not how heaven goes.

GALILEO GALILEI, "LETTER TO THE GRAND DUCHESS CHRISTINA OF TUSCANY"

MANY CHRISTIANS WORRY that modern scientific theories and Scripture conflict. As we argued in the first chapter, the two books metaphor implies that apparent inconsistencies are the result of human misinterpretation rather than a fundamental disagreement. While this starting assumption helps, it does not resolve inconsistencies when they occur. In this chapter we cannot possibly address all the particular passages that raise questions pertaining to science. We will leave questions about how best to interpret individual verses to biblical scholars, and will instead provide general principles that can be applied to any passage.

PRINCIPLE 1: HAVING THE HOLY SPIRIT AS OUR TEACHER DOES NOT MAKE US INFALLIBLE

To state the obvious: Scripture plays an important theological role in the Christian life. It not only is the primary source of knowledge about the nature of God, but it shows us how to live as Christians. Second Timothy 3:16, for example, explicitly links the inspiration of Scripture with its ability to instruct and correct in righteousness. Moreover, the doctrine of Scripture plays an important role as well. For many evangelicals a strong doctrine of Scripture is the best safeguard against future generations slipping into unorthodoxy and even atheism. There is little room for compromise, therefore, if science is seen as undermining the Bible's trustworthiness and authority. But faithful Christian interpreters must also remember: an uncompromising commitment to the inspiration and authority of Scripture does not mean we should have an uncompromising commitment to our own interpretation of Scripture. Because we are sinners with imperfect knowledge and motives, we must always be open to the possibility that we have interpreted a verse or passage incorrectly.

Sometimes a lack of openness to other opinions is not rooted in pride but in the belief that the Holy Spirit will guide us to the right opinion, based perhaps on passages like John 16:13, where it is promised that the Spirit "will guide you into all the truth." A preacher on the radio once explained it this way: "Since the Holy Spirit is the author of Scripture, isn't he the best teacher to explain what it means?" The message stressed that we could be most

certain in our knowledge when we turn away from human opinions and obtain our teaching from God alone. This idea of the Holy Spirit as the perfect teacher lies behind the quarrelsomeness of the fundamentalist; if for some reason others have trouble perceiving the message of Scripture, one should doubt whether they are truly saved since it is only veiled to those who are perishing. If one's spiritual eyes have been opened to see Scripture as authoritative, then its meaning will not remain obscure.

Nobody is an infallible interpreter, and we must always stand ready to reconsider our interpretations in light of new information. We must not let our interpretations stand in the place of Scripture's authority and thus risk misrepresenting God's revelation. We are willing to bind reason if our faith calls for belief where reason fails. But we are also people who in faith seek learning. What we learn may cause us to reconsider interpretations of Scripture, but need never cause us to question the intrinsic authority or nature of Scripture.

John Walton, The Lost World of Genesis One

But this way of framing biblical interpretation as picking either the Holy Spirit or human opinion can lead to an overconfidence in one's own opinions. For example, a student of Martin Luther reported that he said this about Copernicus's 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." Luther frames the problem as whether one should believe human opinion or divine revelation. Put so starkly, why would any Christian not pick divine revelation? In retrospect, however, we can see that Luther's way of putting the issue made it difficult for him to give Copernicus a fair hearing. The larger point is that even though Christians have the Spirit of God, we still can err when reading the Bible.

PRINCIPLE 2: WE MUST READ THE BIBLE IN COMMUNITY

The second principle builds on the first. Our own fallibility means we should be open to the perspectives of other Christians, who also have the Holy Spirit as a teacher.² The assumption of some Christians is that human opinion can only interfere with a true understanding of Scripture. The solution to every theological controversy is thus to cast away human opinions and let the Bible speak for itself, letting there be "no creed but the Bible." The prominence of the "no creed but the Bible" tradition in American evangelicalism is motivated by the desire to remove all human influence from our interpretation of the Bible, letting the Holy Spirit alone speak to us through the text. To admit the role of creeds in the Christian faith is therefore believed to imply that the Bible is in some way unclear and to mistakenly assume that the biblical message needs to be restated and clarified so that others can grasp it.

¹Owen Gingerich, *The Book Nobody Read: Chasing the Revolutions of Nicolaus Copernicus* (New York: Bloomsbury, 2009), 136.

²Josh Reeves, "Theology and the Problem of Expertise," *Theology Today* 69, no. 1 (2012): 39.

This individualistic way of approaching Scripture influences the way some people think we should obtain our beliefs more generally. Institutions such as the church or the university, we are often told, are more interested in accumulating and holding power than finding truth. A frequent motif in Western culture is that the best way to find what is true is to "forget tradition, ignore authority, be skeptical of what others say, and wander the fields alone."³

Institutions like the church or university can often be corrupt, of course, but individualists fail to appreciate an equally important point: our minds are often too weak to find truth for ourselves. We accept beliefs for bad reasons; we accept too many answers that fit with our own biases; we accept easy answers when we should keep searching. Individualist epistemologies mistakenly assume a viewpoint of epistemic egalitarianism that all members of the community are equally competent and that there are no significant limits on each one's ability to investigate questions.4 Yet attention to real communities reveals that this is hardly the case—for a vast majority of church history Christians have lacked basic literacy, much less extensive knowledge of Scripture. It has even become something of a trend in evangelical literature to lament the lack of theological knowledge in evangelical communities. The source of the lament is regularly born out in surveys, such as a recent Pew poll showing that three out of ten evangelicals could not name all

³Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 69.

⁴Alvin I. Goldman, "Experts: Which Ones Should You Trust?," *Philosophy and Phenomenological Research* 63, no. 1 (2001): 85.

four Gospels.⁵ From a theological point of view, the same sin that infects and corrupts institutions also infects and corrupts individual hearts and minds.

The debate that has been conducted in terms of "creation versus evolution" has gotten caught up with all kinds of other debates (in American culture in particular), and this has provided a singularly unhelpful backdrop to the would-be serious discussion of other parts of the Bible.

N. T. Wright, Simply Christian

We should have little hope of interpreting the Bible well without the assistance of others, just as there is little hope of becoming a scientist on one's own. The best way to think about our relationship to Scripture is in terms of discipleship, where one's ability to read the Bible is slowly transformed under the guidance of others, just as Jesus gathered around him a community of followers in order to lead them to a fuller understanding of the truth. The analogy of discipleship suggests that reading Scripture is a difficult thing to do well and cannot be accomplished without gaining virtues such as humility, truthfulness and charity, which only come from interacting with those around us. As one seeks to puzzle out ways of reconciling science and Scripture, it is of the utmost importance to find quality teachers, those who combine intellectual rigor with the virtues that come from a life of Christian faith.

⁵Pew Forum on Religion and Public Life, *U.S. Religious Knowledge Survey* (Washington, DC: Pew Research Center, 2010), 21.

PRINCIPLE 3: NOT JUST A LITERAL INTERPRETATION

Sometimes Christians suggest we can avoid interpretative errors if we simply adopt a literal reading of the Bible, immortalized in the bumper sticker "God says it, I believe it, that settles it." Yet even if we ignored all the genres of the Bible that are inherently difficult to interpret (e.g., poetry and prophecy), the meaning we get out of the text is shaped by our background assumptions that we bring. In a famous metaphor of twentieth-century philosophy, gaining knowledge is like modifying a boat as we are sailing at sea; we can tinker with any piece of the boat we wish, but we cannot replace the whole without sinking. The metaphor's lesson is that our background assumptions provide the structure that makes reasoning possible. Thus when considering a passage of Scripture, we cannot separate our cultural and theological assumptions from the interpretation we make.

The same sort of simplistic interpretative scheme has sometimes been advocated in science. Some have argued that the job of the scientist consists mainly of collecting and arranging "facts"—nuggets of truth that are uncontaminated by our personal beliefs. As we discussed in a previous chapter, no philosopher of science seriously holds to this after the work of Thomas Kuhn, who showed how particular interpretations depend on larger paradigms to make sense. This does not mean that anything goes in what scientists claim about nature, but it does mean that scientific theories are hardly a "literal" reading of nature.

The recognition that interpretation is always an interplay between the text and our assumptions should drive us to interpret the Bible with humility and charity and motivate us to consider other positions with openness. Failure to read the Bible with humility might not only lead one to make interpretative errors, but it can also undercut the witness of the larger church. The explosion of denominations since the Protestant Reformation—where every Christian was encouraged to read the Bible for themselves—has often been a consequence of an inflexible approach to biblical interpretation, failing to acknowledge that equally faithful Christians might disagree. The ability to read Scripture for ourselves is undoubtedly a good thing, but the quarrelsomeness and factions that come with Bible reading have been a negative for the witness of the church.

The Holy Spirit had no intention to teach astronomy; and in proposing instruction meant to be common to the simplest and most uneducated persons, he made use by Moses and the other prophets of popular language that none might shelter himself under the pretext of obscurity.

John Calvin, Commentary on Psalms

An inflexible approach can also create unnecessary roadblocks for those considering the Christian faith. For example, insisting that only one interpretation of the opening chapters of Genesis is authentically Christian can push outsiders away—an unfortunate result given that Christians have always interpreted those chapters in multiple ways. As Christians in the first few centuries acknowledged, the variety of plausible ways of interpreting Genesis is attributable as much to the poetic nature of the text itself as to human sinfulness. Even Augustine argued over 1,500 years ago in his commentary on Genesis that an overly literal approach leads to interpretative problems. How, he asks, can the "days" of Genesis be solar days if the sun was not created until day four?⁶

PRINCIPLE 4: TO KNOW WHAT THE BIBLE MEANS FOR US TODAY, WE SHOULD FIRST UNDERSTAND WHAT THE BIBLE MEANT TO ITS ORIGINAL AUDIENCE

The most likely way to err with respect to biblical interpretation is to fail to interpret the Bible in its cultural context. In other words, we fail to recognize what the passage would have meant to those who first heard the message. Of course, sometimes a passage seems so straightforward that a consideration of context seems hardly necessary. The commandments "Do not steal" or "Do not murder," for example, seem to have a clear meaning across cultures, though it may be helpful to know how the principles were applied in ancient Israel and the early church. When we are trying to discern the meaning of a difficult or controversial biblical passage, however, the most important step is to consider the passage in its cultural context. As the Old Testament scholar John Walton says, "God's Word was written for us, but not to us. Bringing the ancient text to modern readers is not just a matter of word rendering; it's also a matter of understanding the culture in which the text was written."7

⁶Augustine, The Literal Meaning of Genesis, bk. 1.

⁷John H. Walton, *The Lost World of Genesis One: Ancient Cosmology and the Origins Debate* (Downers Grove, IL: InterVarsity Press, 2010), 9;

The reason modern readers have to understand the context of a biblical passage is that God's revelation is accommodated to the understanding of those who first heard it. The principle of accommodation says that God communicates revelation in terms that the audience of the day will understand. Theologians throughout church history, including Augustine, Aquinas and Calvin, have affirmed this principle. As Calvin said, Scripture "proceeds at the pace of a mother stooping to her child, so to speak, so as not to leave us behind in our weakness." Some truths would be too overwhelming or complex for the ancient Israelites or the first-century followers of Jesus to understand.

But because God chose to speak his work through human words in history, every book in the Bible also has historical particularity; each document is conditioned by the language, time, and culture in which it was originally written (and in some cases also by the oral history it had before it was written down).

Gordon Fee and Douglas Stuart, How to Read the Bible for All Its Worth

While the principle of accommodation is deeply ingrained in Christian theology, existing well over a thousand years before the Scientific Revolution, it has important implications

Kevin P. Emmert, "The Lost World of Adam and Eve," *Christianity Today* 59, no. 2 (2012): 42.

⁸John Calvin, *Institutes of the Christian Religion* (Peabody, MA: Hendrickson, 2007), 3.21.4.

for reading Scripture in light of modern science. One implication is that God did not give to ancient cultures a scientific understanding beyond the cultures around them. In other words, if the surrounding ancient Near Eastern cultures believed the Earth sat on pillars, then the Israelites did too (e.g., Job 9:6). If the surrounding cultures believed that the heart was the organ for thinking, then the Israelites did too (e.g., Gen 24:45).

Does this make the Bible untrue? Definitely not! Consider the opinion of Charles Hodge, a leading nineteenth-century theologian who is known for his defense of the Bible being "without error." 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. . . . We must distinguish between what the sacred writers themselves thought or believed, and what they teach. ¹⁰

Hodge himself argued, for example, that the writers of Scripture believed the sun moved around the earth but they nowhere taught this as part of Christian doctrine. To insist that the Bible writers had perfect knowledge of science is to assume that science gives us the most superior type of knowledge. By contrast, the purpose of the Bible was to convey spiritual knowledge,

⁹Alister E. McGrath, *Christian Theology: An Introduction* (West Sussex, UK: Wiley-Blackwell, 2011), 192.

¹⁰Charles Hodge, Systematic Theology: Volume One (New York: Charles Scribner, 1871), 165, 171.

especially the character of God as revealed in Christ Jesus, on which the Bible is the supreme authority.

There is so much more that can be said about biblical interpretation, of course. But as a general approach we hope these principles will orient you when dealing with difficult passages.



ARE SCIENTISTS MOSTLY ATHEISTS?

The fool says in his heart, "There is no God."

PSALM 14-1

THE ATHEIST, OF COURSE, thinks Psalm 14 is quite backwards: "The fool says in his heart, 'There is a God." Quite frankly, Christians are warned of the dangers of calling anyone a fool (Mt 5:22), and in any event it is not a helpful way to approach the differences in responses to the question of God's existence.

That those differences exist is obvious. Survey results involving members of the American Association for the Advancement of Science, for example, reflect them and also show that the religious beliefs of that group of scientists do not mirror those of the population at large. The perception of the atheistic tendencies of scientists is further buttressed by public stances

¹See David Masci, "Scientists and Belief," Pew Research Center, November 5, 2009, www.pewforum.org/2009/11/05/scientists-and-belief. Of course one might also wonder whether the preponderance of atheists in the AAAS merely means that atheists are more likely to join.

periodically taken by well-known scientists who are also atheists. In a recent book, Science vs. Religion: What Scientists Really Think, sociologist Elaine Howard Ecklund surveyed almost 1,700 scientists (including social scientists) at elite research universities. She found 50 percent of scientists in her sample to be members of a religious tradition, even though 34 percent were atheists and 30 percent were agnostics.² Despite the diversity of scientists' beliefs, her interviews and surveys revealed a strong social pressure to keep religious views private.3 In any case, among those scientists who are not atheistic, only some are Christian. Of course one might also conduct a survey to determine whether scientists are primarily male or female, or belong mainly to one ethnic group or another, but such questions do not seem nearly as significant as asking about the role of religion in their lives. There are several reasons for thinking this is the case.

In the first place, any scientist is going to be at least somewhat attuned to the prevailing climate of his or her discipline. As described earlier, no scientist can work in a true vacuum, and knowing that one's general opinions about any perceived reality are shared by peers provides a level of psychological comfort that extends far beyond the sciences. For the scientist, however, the differences between one's own religious beliefs and those of many in the discipline can be a source of major concern because the

²Elaine Howard Ecklund, *Science vs. Religion: What Scientists Really Think* (New York: Oxford University Press, 2012), 16. The disparity in numbers is attributable to scientists who identify culturally with a religious tradition without believing its doctrines.

³Ibid., 24.

presumed rationality represented in the sciences is often pitted against religious belief, and the conclusions derived from the sciences are frequently paraded as a substitute for any alternative forms of knowledge.⁴ Religiously inclined scientists can therefore be left wondering whether they might be mistaken about their religious beliefs or whether they are in greater danger of losing their religious faith than they would be in a different profession.

Now, asking whether one's faith in something rests on a solid foundation is a good question for anyone, theist or atheist.⁵ For the Christian scientist who perceives herself in the minority, however, it may also be helpful to remember that although scientific consensus is usually deemed the hallmark of a good theory, actual progress in science has frequently involved rejecting the majority view. When it comes to worldviews that potentially transcend science, this observation becomes especially significant. In other words, it does not logically follow that because individuals have mastered one limited domain of human understanding they are expert or even competent in other domains. A person may understand the concept or even the value of physical fitness, for example, without actually being physically fit. One might suppose the same applies to spiritual fitness, and that individuals who have developed significantly in their scientific understanding might yet be quite naive theologically. It is thus unnecessary to conclude that a scientist cannot be a Christian, or vice versa.

⁴See J. Wentzel Van Huyssteen, *The Shaping of Rationality: Toward Interdisciplinarity in Theology and Science* (Grand Rapids: Eerdmans, 1999). ⁵See Steve Donaldson, *Dimensions of Faith: Understanding Faith Through the Lens of Science and Religion* (Eugene, OR: Cascade, 2015).

A discovery of the divine does not come through experiments and equations, but through an understanding of the structures they unveil and map.

Antony Flew, There Is a God

Nevertheless, while the Christian scientist may find special reason to believe in God because of the view provided by science, agreeing with the psalmist that we are "fearfully and wonderfully made" (Ps 139:14), the fact remains that many scientists fail to see God in the natural order. It is important to try to understand this and to explain other factors that prevent scientists from being theists. Ultimately, however, the main reasons a scientist might be an atheist come down to too large a view of science, too tired a view of religion and too lofty a view of humans (and their success in science). These views are what lead to proclamations such as that by cosmologist Lawrence Krauss that science is "an atheistic discipline." We'll consider each view in turn.

TOO LARGE A VIEW OF SCIENCE

A common misconception is that whereas God was once needed to explain the operation of the universe, science has relentlessly taken over that task with the result that there is no longer any need to invoke deity.⁷ What non-scientists and scientists alike

⁶Lawrence Krauss, "God and Science Don't Mix," Wall Street Journal, June 26, 2009.

⁷This is the God-of-the-gaps view: "There are reverent minds who cease-

often fail to appreciate is that rather than destroying the mystery, science simply changed its locus. While it is clear that science has been eminently successful in establishing predictive and explanatory frameworks for the natural order, it is by no means clear that the mystery is gone. As Einstein famously noted, "The eternal mystery of the world is its comprehensibility." Failure to appreciate this has rendered science the new god for many. Coupled with the fact that nature is the old god for many others, one is left wondering whether there is in fact any such thing as a true atheist.

Perhaps the desire to make God into a domestic craftsman is because he is more easily tamed that way.

John Polkinghorne, The Way the World Is

In any case, rejecting God because of the success of science is the result of assuming that one of the primary purposes of science is to substitute for God. Yet there is nothing in either science or theology to suggest that should be the case. Nevertheless, when anything is unduly exalted, it can be made to serve any purpose one wishes. This was certainly the case with ancient deities and is just as true of science when given godlike status.⁹

lessly scan the fields of Nature and the books of Science in search of gaps—gaps which they will fill up with God. As if God lived in gaps?" Henry Drummond, *The Lowell Lectures on the Ascent of Man* (Radford, VA: Wilder, 2008), 171.

⁸Albert Einstein, "Physics and Reality," trans. Jean Piccard, *Journal of the Franklin Institute* 221, no. 3 (1936): 351.

⁹Donaldson, Dimensions of Faith, 192-200.

In the end, of course, one will serve whatever it is that has become his $\mathrm{god.^{10}}$

There is quite a paradox here because, despite its many merits, the science that would be god is in fact limited in a variety of important ways. First, we must acknowledge that science is a human endeavor and is hence constrained by its practitioners, who come to their tasks with imperfect cognitive capacities, relatively short life spans and susceptibility to logical missteps. Add to those restrictions the facts that observation, measurement and theory formation are never exact and always occur in a particular context, and that no one is capable of mastering and maintaining a comprehensive view of even a small piece of scientific knowledge, and it is no surprise that scientific theories have been a moving target. 12

In addition, a number of individuals, irrespective of their religious inclinations or lack thereof, have begun to call attention to the problems of placing an undue focus on the purely reductionist aspects of science as conventionally conceived.¹³ Despite

 $^{^{10}}$ As the author of 2 Peter put it, "People are slaves to whatever has mastered them" (2 Peter 2:19).

¹¹Donaldson, Dimensions of Faith, 79-90.

¹²Ibid., 57-63, 90-112. C. S. Lewis suggests that "when changes in the human mind produce a sufficient disrelish of the old Model and a sufficient hankering for some new one, phenomena to support that new one will obediently turn up." *The Discarded Image: An Introduction to Medieval and Renaissance Literature* (Cambridge: Cambridge University Press, 1964), 221. Although it is probably not quite so simple as that, Lewis's observation has much to commend it.

¹³See Thomas Nagel, Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False (New York: Oxford University Press, 2012); Terrence Deacon, Incomplete Nature: How Mind Emerged from Matter (New York: W. W. Norton, 2013);

these and other limitations, science has been successful enough to win the worshipful adoration of many. Sometimes this is not because science is viewed as exceptionally special but because religion is viewed as especially lacking.

TOO TIRED A VIEW OF RELIGION

It seems strange, but scientists who understand quite well the dynamic nature of the scientific process are frequently reluctant to grant the same grace to theological understanding. In other words, while our scientific conceptions of the natural world are allowed to grow and such growth is actively promoted, changing views of God, divine action or other "ultimate realities" are deemed a sign of weakness in religion in general and whatever religion is under consideration in particular.

Nothing in the nature of religious or general understanding, however, warrants such a position. Certainly the Judeo-Christian tradition reflects a growing understanding of God's attributes and his expectations for human conduct, much of which occurred long before the rise of modern science. Nevertheless, Christian and non-Christian alike sometimes fail to acknowledge the interpretive possibilities inherent in (for example) biblical exegesis, a state of affairs that may simply hinder Christian development but can also shut the door to atheists who might otherwise have made it into the kingdom by a more circuitous than normal route. It seems strange, for instance, that

Robert Ulanowicz, A Third Window: Natural Life Beyond Newton and Darwin (West Conshohocken, PA: Templeton Foundation Press, 2009); Sandra Mitchell, Unsimple Truths: Science, Complexity, and Policy (Chicago: University of Chicago Press, 2012).

someone like Darwin who was adept at perceiving new ways to interpret the biological record seems to have been unable to make comparable concessions to the interpretation of Scripture or his own preconceptions.¹⁴

The ultimate problem here eventually manifests itself as too small a view of God. Consider, for instance, the conveniently small god proposed by Neil deGrasse Tyson: "If I propose a God . . . who graces our valley of collective ignorance, the day will come when our sphere of knowledge will have grown so large that I will have no need of that hypothesis." Now, it is difficult to have a smaller view of God than none—the atheist view—but that view itself arises in large part either because it has become impossible for atheists to imagine how any god could answer the deep questions they have posed for him or because no such questions are being asked. Yet attempting to shrink God is perhaps not so strange for someone who overly exalts a reductionist approach to understanding.

TOO LOFTY A VIEW OF HUMANS

If God is made small enough, any human endeavors (and consequently the humans who undertake them) begin to look overly significant. Thus an undue pride in human knowledge

¹⁴See Karl Giberson, *Saving Darwin: How to Be a Christian and Believe in Evolution* (New York: HarperOne, 2008), regarding the impact the traditional doctrine of hell as well as his personal struggles with theodicy had on Darwin's theological convictions.

¹⁵Neil deGrasse Tyson, "Holy Wars: An Astrophysicist Ponders the God Question," in *Science and Religion: Are They Compatible?*, ed. Paul Kurtz (New York: Prometheus, 2003), 79. This should sound familiar to anyone who has heard Laplace's famous rejoinder to Napoleon.

and accomplishments can eclipse God, rendering him all but invisible, as a finger held too closely to one's eye can block the sun. We've already discussed some of the problems associated with a lack of intellectual humility, but it is difficult to imagine greater problems than those arising within an individual who imagines that she can discover God on her own terms, or who believes that his special gifts in scientific understanding somehow privilege him above others in obtaining a relationship with God—or that those insights simply remove the need for God altogether.

Humans persistently abandon their capacity for finding truth in favor of abuses that spring from idolatrous self-interest.

Mark Noll, Jesus Christ and the Life of the Mind

It is probably also a mistake to think that just because someone desires truth in one arena they are anxious or willing to pursue it in others. ¹⁶ Attempting to discover scientific truth is perceived as a discovery process that can undergird a career and lead to prestige as one masters a discipline, but trying to discover the truth about God can lead to worries about the need to sacrifice other things held dear, fear that one will be rejected by peers who don't share the same religious views, or concerns that one might actually find good reasons to believe in a God whose nonexistence is assumed to be more convenient. Courageous scientists are not necessarily courageous explorers in other

¹⁶Donaldson, *Dimensions of Faith*, 245-50.

domains. How many atheists, for example, are asking, If there is a God, do I want to know?¹⁷

A CASE STUDY

To illustrate the interplay of these three roadblocks to theism, consider the following famous quotation from the eminent evolutionary biologist J. B. S. Haldane:

My practice as a scientist is Atheistic. That is to say, when I set up an experiment I assume that no god, angel or devil is going to interfere with its course; and this assumption has been justified by such success as I have achieved in my professional career. I should therefore be intellectually dishonest if I were not also Atheistic in theory, at least to the extent of disbelieving in supernatural interferences in the affairs of the world.¹⁸

Despite the sound-bite appeal of such a proclamation or the scientific credentials of the speaker, this is a textbook example of employing lavishly loose logic to support a preexisting bias. Consider, for instance, the logic of such a statement with a few simple substitutions:

¹⁷The reverse question is only fair: How many Christians are willing to ask themselves, If there is no God, do I want to know? Difficult as these questions can be to ponder, they are critical to helping frame issues of faith and reason. A really interesting question thus arises in light of these considerations: Does being smart and knowledgeable work against knowing or believing in God? It would be easy to simply think that in discussing God and human wisdom in 1 Corinthians 1 Paul answers that question, but that would be to misunderstand Paul and also to ignore what he goes on to say in (for example) 1 Corinthians 2.

¹⁸J. B. S. Haldane, Fact and Faith (London: Watts & Company, 1934), vi-vii.

My practice as a runner is selfish. That is to say, when I run I assume that no one is going to interfere with my exercise and that no one but me is going to reap physical or psychological benefits from it; and this assumption has been justified by such success as I have achieved in my running life. I should therefore be intellectually dishonest if I were not also selfish in theory, at least to the extent of believing selfishness was justified in worldly affairs.

Now, it seems apparent that in virtually all of our activities (intellectual, physical, relational and so forth) we ignore those elements that we believe are extraneous to them, but that does not thereby render those elements meaningless in other contexts. The fact that music plays no role in his diagnosis does not lead a physician to conclude that music lacks value in other domains (although that may individually be true for him). Neither does a swimmer discard the idea that legs are useful for walking just because they have a different use while she is trying to swim the English Channel. In fact, because many of the successes we have had in our lives resulted without any influence from science, by Haldane's logic we would be justified in eschewing science in all areas. To put it another way, if I perceive no power in science to improve my tennis game, engender love for a particular musical genre or enhance interpersonal relationships, then why is it not reasonable for me to assume that it is useless in all other affairs of the world? Clearly all these conclusions are non sequiturs, but when one takes too large a view of science and humans and too small a view of God, conclusions such as Haldane's are not uncommon.

Certainly there seems little danger of God becoming any smaller for an atheist, but invariably something else will then be elevated into an object of devotion. When that turns out to be science, there is the potential for an interesting form of "science of the gaps" where the concern is to defend those areas in which scientific explanation is fundamentally inadequate. The resulting protectionist stance is reminiscent of that accompanying a lack of intellectual humility; indeed, it is an unwillingness to express such humility that can constitute the barrier that prevents the atheist from entering the kingdom.¹⁹

The skeptic was quite right to go by facts, only he had not looked at the facts.

G. K. Chesterton, Orthodoxy

WHAT DOES IT MATTER?

For a number of years it has been difficult for anyone driving across the Texas panhandle on Interstate 40 to miss seeing what is billed as one of the largest crosses in the Western Hemisphere. The metal structure is visible from miles away across the flat plains, but recently a large number of wind turbines have visually diminished its prominence. The spiritual significance of the cross remains unchanged, however, no matter how many structures of a different nature exist around it.

In an age when numerous individuals (including some prominent scientists) seem to represent something radically different from traditional Christian beliefs, it is easy to forget that many of the early and most famous scientists were devout Christians.

¹⁹See, e.g., Matthew 18:3: "Unless you change and become like little children, you will never enter the kingdom of heaven."

As we've seen, this included such figures as Galileo, Kepler, Newton and Boyle. In fact, there is good reason to think that modern science took root and grew best in a Christian setting, despite having had ample opportunity to do so in other environments.²⁰ But regardless of historic or current precedent, the Christian scientist is ultimately confronted with Jesus' claim that "wide is the gate and broad is the road that leads to destruction, and many enter through it. But small is the gate and narrow the road that leads to life, and only a few find it" (Mt 7:13-14). What, then, does it matter to the faithful Christian if many or even most of his peers are atheist, or just agnostic? Actually, as we are about to see, it matters a great deal, but not because the Christian should be worried about conforming to a strictly secular standard. The Christian scientist, it turns out, has a special opportunity to bridge the gap between Christian belief and that of a largely non-Christian world.

²⁰See Alister E. McGrath, *Science and Religion: A New Introduction* (West Sussex, UK: Wiley-Blackwell, 2010); Peter Harrison, *The Bible, Protestantism, and the Rise of Natural Science* (Cambridge: Cambridge University Press, 2001).



SCIENCE FOR THE GOOD OF THE CHURCH

Continue to work out your salvation with fear and trembling, for it is God who works in you to will and to act in order to fulfill his good purpose.

PHILIPPIANS 2:12-13

ALISON GOPNIK, A PSYCHOLOGIST and philosopher at the University of California, Berkeley, has claimed that "consciousness narrows as a function of age. As we know more, we see less." A variety of factors might make this true, including work-related expectations, paradigm blindness, comfort with existing beliefs, fear of change, basic human limitations, and pressure from social, religious and professional support groups. But Gopnik's "we" is not just restricted to individuals, and her statement can characterize religious communities and whole

¹Alison Gopnik, "Why Babies Are More Conscious Than We Are" (lecture at Toward a Science of Consciousness conference, Tucson, AZ, April 12, 2008).

societies as well. One result of narrowing consciousness is a tendency to select only evidence that supports what is already believed—one can end up accumulating cherry-picked knowledge that enhances certainty about something even though it is wrong. At one time there may have been a willingness to question something that has now become so entrenched as to be all but unassailable. The result? We see less.

Crises of faith can engender unquestioning acceptance of the current situation or lead us to abandon a belief altogether but they can also turn us into explorers.

Steve Donaldson, Dimensions of Faith

This need not, however, be a foregone conclusion. Although individual frailties can cascade into an entire culture such as the church, so can individual strengths. Thus as a church matures it may either be plagued with tunnel vision or become visionary. The ever-present danger is that today's vision becomes tomorrow's rut. There is no rest for those who would prevent an accumulation of knowledge and insight from becoming a prison. That Jesus' harshest criticisms were directed at the religious elite of his day should be adequate reminder of the vulnerability of any religious person—Christians included—to this threat.

Consequently, every church member is under obligation to understand and guard against a paralysis of perception and thought that can make spiritual progress impossible. What we would like to suggest here is that the Christian who is also a scientist is in a special position to recognize this as a potential

problem and also to help address it. For one thing, numerous intellectual issues that face modern Christians arise at boundaries where science and religion meet. Christian scientists will in many cases already have begun to struggle with melding what have often been seen as disparate disciplines, asking, How do we make sense of the various claims of science and the Christian faith? Fortunately the same critical analysis skills that enable a successful scientific career are also useful for helping to build bridges between the two areas.

In attempting to live out Paul's injunction, "Whatever you do, do it all for the glory of God" (1 Cor 10:31), the Christian scientist has a distinctive opportunity to use his or her unique gifts to be salt and light (Mt 5:13-16), both within and beyond a specific Christian community. Those efforts can in turn function as integral components in the overall growth and development of a congregation. It would be a serious mistake to assume that science and Christianity are somehow at odds or that how they interact is irrelevant to the church's real mission and ministry.

VENUES FOR FAITHFUL LIVING

In this section we'll consider a variety of ways in which the Christian scientist can positively affect the mission and ministry of the church.

Getting personal. If anyone, scientist or not, is to have a vibrant influence in their church, it must begin with how they conduct their personal lives. This seems so obvious as to deserve scant attention, but public perceptions about scientists make it an especially relevant issue for those who are Christian. It may or may not be true that most scientists are atheists, but it is especially

important that the Christian scientist is not mostly atheistic. It is possible for a scientist to profess a Christian commitment but to live in such a way that no one can tell.

One of the key ways to dispel the illusion that science is an atheistic discipline is to demonstrate that one can lead a faithful Christian life at home and at work—that a certain well-roundedness can be maintained that not only doesn't exclude God from family or career but positions him front and center. The Christian scientist must operate professionally under the assumption that there is an order to natural processes, but unlike Haldane feels no compulsion to act as though that somehow repudiates God.² Furthermore, although there will always be things outside the control of any individual, the scientist should model how to react to adversity with appropriate Christian responses no less than any other Christian. These attitudes and behaviors are the starting points for faithful Christian ministry.

Sharing the benefits of science. Despite the problems that have accompanied development of industrial and technological societies, even if it were possible to return to an earlier time, few individuals would be willing to do so—for the simple reason that the benefits made possible through science are deemed to outweigh the perils. Many of those benefits play directly into the ministry of the church, and scientists are in an ideal position to help make that clear (especially to those persons who seem to reject the idea that science can contribute anything positive to church practice).

Jesus, for instance, has been called the Great Physician, but many more people have been cured through the application of

²In formal terms, methodological naturalism does not entail atheism.

sound medical science than he ever healed in his earthly ministry—something he may have had in mind when he said his disciples would do greater things than he had done (Jn 14:12). As Christians have recognized since the time of Christ (and understand from his example), it is difficult to share a spiritual message with a starving, sick or hurting person. In other words, if something fundamental is absorbing a person's attention, it can block the deeper messages that the church wishes to bring. Yet science has provided a way to address many of the physical, mental and emotional ills that plague individuals and promises to address even more in the years ahead. Thus as technologies enabled by scientific understanding have contributed to increased food production, clean water and even an ability to spread the gospel through a variety of electronic means, science has partnered (perhaps, but not necessarily, unwittingly) with Christianity in some of its most significant ministry objectives.

Helping to educate ministers and congregations. In recounting his conversion experience, noted Watergate conspirator Chuck Colson describes how when he was at one of his lowest moments a friend reached out and took from a shelf a book that he thought might change Colson's life. The book was C. S. Lewis's Mere Christianity, and anyone who has read it can immediately understand why it had the impact on Colson that his friend had hoped. The key thing to note here is the perhaps surprising fact that it was not the Bible that was given to Colson. We relate this story not to discount the importance of the Bible—indeed without its message books such as Mere Christianity are meaningless—but to point out that God can speak in any number of ways.

Although Christian tradition maintains that the Bible provides the necessary knowledge about God's saving grace, any idea that the Bible is a complete source of all knowledge, even about God, is impossible to justify. A God of infinite attributes cannot be fully described in a finite book, and there is no reason to think that God would limit himself to a single source. If he did, there would seem to be little need for preachers or Bible teachers. But because God can speak in various ways, it is useful to ponder (in the context of this book) how he might do so through Christian scientists.

The fact is, modern science has provided a different view of the world than was available to the people who wrote and originally read the various parts of the Bible (which were different peoples at different times). The more informed and conversant Christians become in areas that are touched by both scientific and theological reflection, the more they can contribute from these particular vantage points to the overall ministry objectives of the church. Clearly not everyone will reach the same level, nor need they, but it would be a shame if all church members—and particularly ministers—did not have a basic understanding about the key issues and not merely some ill-formed opinions.

A description of science cast entirely in terms used by scientists would be incomprehensible to outsiders.

Bruno Latour and Steve Woolgar, *Laboratory Life*

Scientists in congregations can help provide insight into relevant areas both formally (via scheduled lectures, discussion groups, book reviews, addendums to Bible studies and the like) and informally as they simply interact one-on-one with members of the congregation and ministerial staff or share their perspectives in existing group settings. A good starting place is to address the fundamental question, Science and religion: are they compatible? (which is the title of at least two books reflecting a deep suspicion among many that they may not be).³ As described later, additional emphasis can be placed on other key questions at the intersection of science and religion in general and Christianity in particular.

It is disconcerting that there is an apparent disconnect between scientific and theological perceptions among members of many congregations. Furthermore, the general track record of many denominations and sects has not been especially attractive with respect to productively assessing the fruits of modern scientific thought as it pertains to theological perspectives, even though the rewards of doing so are potentially great. Cultivating a richer, deeper engagement between science and Christian thinking can help church members better understand the importance of integrating these areas, both with respect to their own spiritual development and to how they are perceived by those outside the church. In short, the goal is to make the mind a full partner with the heart, soul and strength in loving and serving God.

Reaching the intellectually disenfranchised. There are any number of reasons why people may have chosen not to accept

³Daniel C. Dennett and Alvin Plantinga, *Science and Religion: Are They Compatible*? (New York: Oxford University Press, 2011); Paul Kurtz, ed., *Science and Religion: Are They Compatible*? (New York: Prometheus, 2003).

the Christian message or to engage with a local church, but in an increasingly educated society one of those reasons involves the perception that there are intellectual barriers between scientific and religious ways of thinking that are simply insurmountable. A hunger for understanding can create a void that, for some people, has distracting results analogous to those that physical hunger has for others. Being able to show how science and Christianity are compatible is a way to knock down barricades and build bridges with such marginalized people who think science has somehow eliminated the need for God. If the Christian scientist does not attempt to address those concerns, who will?

Opponents must be gently instructed, in the hope that God will grant them repentance leading them to a knowledge of the truth.

2 Timothy 2:25

Not surprisingly, the best hope for reaching an atheist or agnostic may be the informed, caring, Christian scientist who is prepared not only for honest and educated discussion but also to pray for those whose ideas currently differ from her own. Many Christians see atheistic scientists such as Daniel Dennett, Richard Dawkins, Sam Harris and E. O. Wilson as the enemy, but even if that is the case, it would be prudent to recall that Christians are under injunction to pray for their enemies (Mt 5:44). In trying to instantiate Paul's vision of becoming "all things to all people" to win some (1 Cor 9:22), the Christian scientist is also living out the call to "always be prepared to give an answer to

everyone who asks you to give the reason for the hope that you have" (1 Pet 3:15).⁴

SPECIFIC WAYS THE CHRISTIAN SCIENTIST CAN HELP THE CHURCH

There are a variety of ways the Christian scientist can help church ministers, members and prospective members understand relationships between science and Christianity as they pertain to personal and corporate growth and development.

Clarifying the role of context in the development of religious and scientific faith. From table manners and marriage rituals to scientific and religious belief and practice, each person's location and date of birth put him on a cultural trajectory from which it is difficult to deviate with respect to insight or opinion. Even when such departures do occur, it is almost always to become fixed on another equally invariant course. This is not entirely undesirable because a reasonably high level of stability is necessary for productive lives, but it can become problematic when one forgets that his current trajectory may have no sounder basis

⁴The remark (previously mentioned) that is sometimes heard in Christian circles—"God said it, I believe it, that settles it"—is presumably spoken by devout theists who see themselves taking God's Word as evidence for the rationality of their belief in the assertions of Scripture. While it certainly seems illogical to disbelieve the words of a god (and if God did say it one would probably do well to believe it), there is an obvious circularity in such reasoning, and deciding what God actually said (or says) can be a challenge all its own. It is not as simple as equating everything one reads in the Bible with a direct saying from God (e.g., 1 Cor 7:12, 25-40)—hence the need to be prepared to give a reason. ⁵Steve Donaldson, *Dimensions of Faith: Understanding Faith Through the Lens of Science and Religion* (Eugene, OR: Cascade, 2015), 121-25.

than the fact that it is the one into which he happened to be born or stumble. There is superficial acknowledgment of this influence among most literate individuals, but it is usually expressed in generalities that tend to obscure the fact that no one is immune—and that includes scientists as well as theologians.⁶

Recognizing the potential for a contextually formulated bias is a prerequisite to any sincere exploration for truth. But even then it is possible to be deluded into believing that one has logically and freely chosen a particular path when in reality many of the bases for those choices are themselves beyond personal control. Nevertheless, scientists who desire to integrate Christian faith and science will find that their scientific training plus the fruits of scientific understanding can perhaps contribute to their ability to identify and confront such a plight, both in themselves and in others.

Helping with interpretive issues. Many (if not all) of the problems at the conjunction of scientific and religious views arise because it has been predetermined that there is one privileged way to read Scripture, or one way to interpret scientific or historical evidence, or that what is meaningful is obvious and should be apparent to everyone. As noted above, what people often neglect is an admission that such determinations are not unbiased and that they are sometimes a reflection of what is happening to the person

⁶Cf. Stephen Wolfram, *A New Kind of Science* (Champaign, IL: Wolfram Media, 2002), 633.

⁷Cf. Francis Bacon's idols of the mind; *The Great Instauration*, in *The Works*, vol. 8, trans. James Spedding et al. (Boston: Taggard and Thompson, 1863).

⁸See Daniel Wegner, *The Illusion of Conscious Will* (Cambridge, MA: Bradford, 2003); Michael Gazzaniga, *Who's in Charge? Free Will and the Science of the Brain* (New York: HarperCollins, 2012).

more than a sign of rational reasoning. This neglect would be difficult to excuse were it not for the fact that it too is culturally conditioned. But recognizing the power of cultural biases can serve as a starting point for possible reconciliation or, at the very least, communication, and it is the beginning of any semblance of genuine control over and responsibility for one's beliefs.

There is, for example, a frequent tendency to confuse beliefs about the presumed literal characteristics or actions of God (patterned after scaled-up human attributes) with beliefs about the existence of God.⁹ This confusion can lead to the literal claim that there is no God, but it can also distort what might otherwise be a clearer picture of God. Christian scientists who have wrestled with some of these issues might have an ideal opportunity to help others who are struggling with them.

Dealing with doubt. It is interesting to consider the idea that atheists and theists not only share mechanisms for how they arrive at their respective beliefs, but they frequently display comparable behaviors. Proponents of each side show signs of deep and fervent belief in their adopted perspective, although the actions of either can be a charade. People who appear to hold their beliefs with an iron grip may in fact be tiring from the effort or simply concealing withered hands behind a façade of invincibility. Much was made some years ago following the death of Mother Teresa about her private (at least until that time) "crisis

⁹Although many people can read biblical passages such as Isaiah 59:1 ("Surely the arm of the LORD is not too short to save, nor his ear too dull to hear") without thinking that God has literal arms and ears, they nevertheless act as though God is really just a glorified human. Thus everything from disaster to disease is sometimes attributed to God in the same way that we would attribute it to human agency.

of faith," particularly how someone apparently so devoted could entertain the doubts she did. 10 But for every Mother Teresa there is a public atheist who harbors analogous reservations about which his colleagues would be surprised to learn.

The real surprise would be to find that there actually are atheists or theists who have no doubts and have experienced no "crises of faith." Perhaps there are some, but unless one retreats into a protective shell, any exploration of the claims for and against God is sure to raise questions. C. S. Lewis once said, "Now that I'm a Christian I do have moods in which the whole thing looks very improbable: but when I was an atheist I had moods in which Christianity looked terribly probable."11 It is likely that even the most devout atheist (or theist) will admit some probability for the existence (or lack thereof) of God, but that probability shouldn't be viewed as some mysterious number that magically appears and exists on its own. The probability reflecting any person's belief about the existence of God is really just an amalgam of myriad competing and contrasting beliefs about all sorts of potential evidence. No wonder it can fluctuate by the moment for atheist and theist alike.

> To think in any way that faith is the problem or that, more specifically, faith is a religious problem is to entirely misunderstand both faith and God

Steve Donaldson, Dimensions of Faith

¹⁰David Biema, "Her Agony," Time 170, no. 10 (2007): 36-43.

¹¹C. S. Lewis, Mere Christianity (Westwood, NJ: Barbour, 1952), 119.

Christian scientists can play two key roles in this regard. First, they can help dispel the myth that Christianity is not based on evidence. Second, because much of their training has been involved with analyzing evidence they can help others learn to analyze claims about both Christianity and science (and their interaction). For any subject, doubt is almost always a response to concerns about evidence and rationality, and hence constitutes a rational component of faith. In fact, one could go so far as to say, "No doubt? No rationality!" In short, blind faith is not rational faith and there is no reason to think one form of it is better than another. 12

Confronting slippery slope fears. We use this phrase to describe the belief that acknowledging a possible mistake with respect to a single issue will inevitably lead to eventual abandonment of one's entire philosophical, scientific or theological position. The individual plagued by this concern is thus locked into a static mindset, afraid that loosening his grip on what he currently believes will send him sliding straight into a relativistic (in the sense of the absence of absolutes) if not literal hell. This fear is usually expressed as, If I can't believe X, then what can I believe (from my current belief set)? The implication is that if X is false, there is no reason to think previous belief Y might not also be false. Y is seen as inextricably linked to X so that, for example, if Adam falls off the cliff he must necessarily drag Jesus with him. Although this might be the case for some beliefs, concluding that it must be so for all is an inductive fallacy—a logic error without warrant.

¹²See Donaldson, *Dimensions of Faith*.

It should be noted that scientists are subject to slippery slope fears no less than religious folks. Usually people contemplate this fear in terms of the perceived potential to lose their religious faith, but it works both ways. Consequently, acknowledging even the possibility that his esteem for science, causal logic and his own reasoning powers might require more serious scrutiny could have put Haldane on a slippery slope at the bottom of which his atheism might have been jarred loose.

This whole enterprise takes great discernment, particularly since there is always the danger of abandoning a true belief and also because there are plenty of individuals who would like nothing better than to exploit this fear in order to drive a wedge into an existing belief set with which they disagree. Nevertheless, being afraid to question a belief because of this fear is worse. Christian scientists must be especially attuned to these concerns and prepared to confront them as they arise both within themselves and among church members and prospective members.

Discovering truth. Truth has a nasty habit of being inconvenient. Faced with the truth one may also be faced with the need to diet, exercise, study, travel or otherwise change habits, friends or points of view. In extreme cases the search for truth can be accompanied by controversy or outright hostility. More often, it may simply take a backseat to concerns that an existing and valued (though not necessarily valuable) relationship will be lost. Sacrifice of social standing or peer approval accompanying admission that a previously held view may have been wrong is for some a greater nightmare than not having the truth.

It is easy to think this is primarily a problem for certain religious viewpoints, but, as Kuhn suggests, scientists may cling so

tightly to their preferred paradigm that only death can tear it from their grasp.¹³ Thus, while those steeped in the Judeo-Christian tradition are encouraged by the likes of Francis Collins to relax their grip on a literal reading of Genesis, biologists are asked by Stuart Kauffman to loosen their hold on "Natural Selection, which we might as well capitalize as though it were the new deity."14 Both Collins and Kauffman, of course, advocate a change of view because they believe that doing so will promote greater understanding in their respective domains of interest and not because they are intent on creating untenable positions for those who take their advice. The issue here is not whether their specific suggestions are useful, but rather the potential similarity in responses by their respective audiences. Thus the scientist who is afraid that a consideration of self-organization might undermine the current status of natural selection responsible for the perceived order in nature shows traits uncomfortably reminiscent of the unflinching biblical literalist.

In the search for truth, the role of the Christian scientist is to help keep before others the image of a God who is capable of withstanding scrutiny and who "rewards those who earnestly

¹³Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1996); cf. Donaldson, *Dimensions of Faith*, 122. It is therefore noteworthy when a scientist publicly backpedals—for example, Bryce DeWitt's advocacy of Hugh Everett's many worlds interpretation of quantum mechanics, a position he had previously criticized; Peter Byrne, "The Many Worlds of Hugh Everett," *Scientific American* (December 2007): 98-105.

¹⁴Francis Collins, The Language of God (New York: Free Press, 2007); Stuart Kauffman, At Home in the Universe: The Search for the Laws of Self-Organization and Complexity (New York: Oxford University Press, 1996), 8.

seek him" (Heb 11:6). Of course, a god that cannot stand up to scrutiny does not deserve the designation any more than a god that can be fully scrutinized, but many individuals who assert God's omnipotence nevertheless act as though he has feet of clay that will crumble unless they protect him.¹⁵ Although God is assumed to be with them in "the valley of the shadow of death" (Ps 23:4 NKJV) he is somehow unable to protect them in the shadow of scientific evidence or theological thinking they find distasteful. Protection, of course, may not be his intention, but despite proclaiming that he has their best interests at heart they cannot see how this is possible if they must question and possibly abandon some of their cherished ideas. Eventually, the atheist ends up marginalizing religious belief while the Christian marginalizes science, but only because both have marginalized God. Christian scientists, then, must continually remind themselves and those they interact with of the natural human tendency to tie God's hands with the cords of our limited imaginations.

Contemplating big questions. A limited view of the scientific enterprise only sees the immediate problems facing the scientist and fails to recognize the potential for science to contribute to a growing understanding of big questions—those questions of meaning and value that have been asked by countless individuals for significant periods of time. But consider the following questions:

- · Where is the soul in a physical brain?
- What does modern neuroscience suggest about free will?

 $^{^{15}\}mathrm{See}$ Donaldson, Dimensions of Faith,~217, on the potentially adverse result of trying to protect God.

- What does it mean to be human in an evolutionary context?
- Will transhumanist endeavors change our understanding of being made in God's image?
- How does meaning arise from mindless mechanisms?
- How does the apparent randomness seen in nature relate to God's providence?

For each of these questions (and many others) modern science provides insights that can help frame understanding and stimulate thinking. Christian scientists who see their work in this larger context—and particularly those who have taken the initiative to examine the relationship between their work and relevant theological and philosophical perspectives—can help their fellow church members and others see such questions in a new and potentially useful light.

CONCLUSION

Christian scientists are under obligation to live faithful lives at home, work and church no less than any other Christian, but the scientific training they have acquired also equips them to demonstrate how science can serve as a window into the nature and action of God in ways that can extend the vision of those whose expertise lies elsewhere. That training can also pay dividends when helping current and prospective church members bridge the perceived chasm between theories of modern science and claims of Christian faith—a gap that has been unnecessarily imposed by Christians and non-Christians alike who have failed to see the possibilities of integration.