The Two Books Metaphor: A Critique and a Caution

Marty Folsom

Abstract: The two books metaphor gives equal weight to both Scripture and nature as God's means of self-disclosure. This article discusses historic problems, inherent even in our day, that occur whenever church, science, and culture fail to give authority to God's self-revelation. It concludes with cooperative proposals for faith and science to seek understanding that serves God and humanity.

picture held us captive. And we could not get outside it, for it lay in our language, and language seemed only to repeat it to us inexorably." The two books metaphor is such a picture. Metaphors have the capacity to enslave us or send

us down a wrong road as they determine our pictures of reality. At one time, an image of a flat world kept sailors from sailing west for fear of falling off the edge. The two books metaphor presents Scripture and nature as having a common author, hence both capable of revealing God. This image intends to open avenues of investigation in knowing God, and to bring value to both theology and science as providing valid data for this quest. Historically, however, this has proven to be a dangerous image, as the challenging book of Scripture was frequently abandoned in favour of the more accessible book of Nature.² Presenting them as equalopportunity avenues, or even parallel streets to the same end, confuses language about knowing God, and will ultimately and inexorably lead us to a dead end. I affirm the need for respectful dialogue between science

and faith, but critique the value of this one metaphor, which claims to adequately present two means of knowing God.

Science and faith were not always distant. It has been argued that science arose out of the God-world relation depicted in Christianity.³ But modern science claims an independent authority and manner of knowing, departing from the ancient unity of the sciences that regarded theology as the queen of the sciences. Mathematics, the language of science, is now the queen of the sciences. So how might science and theology become friends again? Can we envision a friendship and compatibility between the church and science, offering the two books metaphor as a platform to bring them together as complementary conversation partners? This is a worthy goal, but a dangerous approach.

The picture of two books of revelation is hardly new. John Calvin, the Belgic Confession, and Reformed thinkers all appear to advocate for this image.⁴ But, in actuality, Calvin did not see them as two equal books; the Bible, as a pair of enabling spectacles, was necessary to truly interpret what was otherwise indiscernible in nature.⁵ Ultimately, the Reformers affirmed the clarity of the written word and its priority over the natural order in knowing God.

Appeals to Romans 1:19 also seek to support the premise that knowledge of God is available to everyone through the natural world. But this interpretation neglects to note that in all of history no human got it right; all missed the glory of God. All needed God's personal revelation as the faithful way



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to know God. Human interpretations of the world and the human's place within it led people to abuse creation and miss God. One can only come to know God—and the nature of the world—retrospectively, after having been given the Spirit and the witness of Scripture.

Appeals to Romans 1:19 seek to support the premise that knowledge of God is available to everyone through the natural world. But this interpretation neglects to note that in all of history no human got it right; all missed the glory of the church. Many church leaders are afraid to discovered God. All needed God's personal revelation as the faithful way to know God.

Psalm 19 begins with a proclamation of the heavens recounting God's glory, but notes in verse 3 that because creation has no speech or words, its voice is not heard. Starting at verse 7, the word of the Lord is introduced as God's articulate speech, giving, in various ways, the means necessary to know God. While creation is a mystery that appropriately raises questions about the world, only God reveals God.

the current conversation regarding the relation between faith and science, the two books metaphor has again been given prominence as our guide to understanding the interrelating of science and theology in serving science in the church, and it is easy to understand why proponents of a healthy dialogue between science and faith might employ this image in an attempt to overcome their fears. Therefore, we must attend to the serious dangers implicit in using the two books

metaphor as a picture that guides us.

Books are wonderful tools for knowledge. Two books with a common author would seem to give us more knowledge. But they are not "authored" in the same way. Though Christians affirm that creation

has a Creator, nothing in creation gives a self-explanation regarding its author. Any religion or atheist can interpret as they please from within their frame of reference. There is nothing uniquely Christian about the design of the world. Nature's "text" is neither addressed nor signed. So it is difficult to defend a Christian critique that claims other religions have misread knowing the true author of the world. The fact that we can observe both the natural world and the Bible is not enough to assume that either adequately or equally reveals their Creator.

Recognizing they are different, we ought not to use the words "read" and "book" as though they mean the same thing in both cases. The two books metaphor, which presents both the book of Scripture and the book of nature as key texts to help us understand God and his ways in the world, is a perilous model in that it assumes both texts intend to communicate with similar clarity, though in different languages. But nature and the Bible are two radically different "texts." Nature's Creator forms and sustains, but does not embed into nature a message to be interpreted in knowing who God "is" or what God "wants."

The Bible, however, is a written text, conveying the definite sense of an author who desires to communicate. There is grave danger in construing a dualism between the spiritual world, known through the Bible, and the material world, known through human experience of nature. This dualism fractures the holistic view of a God who holds together one reality. Without divulging the mechanisms of how the created order works, the Bible reveals God and divine purposes in creating, sustaining, and redeeming it; this allows humans to maintain belief in a unified cosmos, even while studying in subdisciplines such as theological science and natural science. But we must remember that natural science is self-limited, because nature can only reveal to us its own character, but not God's character.

To our listening minds, Scripture and nature may easily appear equal in value and authority. But only the Bible claims to be

the Word of God, the authoritative text for faith and practice. There are no principles of interpretation to accurately hear God's voice through nature. Nature does not name the Christian God as its author, and many religions claim their deity is the creator. In the Bible, the Christian God makes claim to creation. But God nowhere attests any intention that nature function as a text that communicates to humanity God's character or God's will. The Bible tells us to be stewards of nature, to enjoy its fruit, to value it as God's handiwork, and to voice creation's praise since creation has no articulate voice.8 The Bible is like an owner's manual that explains how to drive a car, or a shop manual showing how to maintain a car. The mechanic does not go to the car to understand the creator; instead, he goes to the manual to learn how to fix or maintain the car. In the same way, God created nature to be lived in and enjoyed, but the Bible is the communicative text that guides us in stewardship, operation, and means of contacting the manufacturer.

Voltaire once said, "If God has made us in his image, we have returned him the favor." This practice has been greatly detrimental to the church over the centuries. Our tendency as humans to form idols by deifying nature is the basis of mythology—projecting ideas onto the divine based on one's experience of nature. Whenever humans try to read nature as "text," our sleight-of-hand move imports a human value agenda onto God. This is how the American dream subtly becomes "God's plan" for the blessed faithful.

In biblical times, the nations surrounding Israel sought to reach their gods through nature, worshiping on mountaintops and using sex and alcohol (the fruit of the earth) as "God's gift for worship." But Yahweh instructed Israel to worship only the Maker of heaven and earth. Many, in the history of theological and political thinking, have believed they could discern God's will in the "orders of creation." Reading nature as text, they "obediently" placed men over women, since "God made men stronger and smarter." The same errant interpretive logic was used of race to deduce that God

made white people superior to all others. In reality, this sleight-of-hand move, reading cultural values and hierarchies into nature and calling it God's will, is idolatry.

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mutation, adaptation, selection, and many chaotic wrong turns. But contrary to looking out for ourselves, the Bible explicitly directs us not to imitate the competitive "tooth and claw" process we observe in the created order. Science describes past actualities; theology presents divine possibilities within natural realities. We are saved by grace, not by following the laws of nature. We are to love and function as a collaborative body with God and one another divine p

beyond the herd instinct. The book of Scripture is a corrective to the impulses of nature.

Another human tendency is to select from nature only those texts that best serve our ends. In biblical interpretation, this is called eisegesis or "I-see-Jesus"—reading into the text what is not there, or considering only the parts that support our desired conclusion. Nevertheless, prooftexting from nature has all the same problems as prooftexting from Scripture. In this move, some may regard only what is pleasant as portraying God and his will, while intentionally

overlooking negative events, confusion, and ignorance in the world. Others will construe an earthquake or tsunami as God's act of judgment. Positive or negative, both project cultural values onto God.

Tragically, as science and theology battle for the authority to determine truth, science continues to dismiss Scripture while embracing the objective world. Since the Enlightenment, nature has become the book of truth, and science its priests. Whatever is still unproved by scientists is not considered

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true. In fact, whatever is outside the realm of objects is not considered even worthy of discussion, including personal relationships. Science originated with a foundational belief in an orderly world created by God. But through the two books mode of thinking,

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the book of nature usurped faith. God became viewed deistically, as watching from a distance, as a God who set up and then exited his self-sustaining, mechanical universe. God became merely an unnecessary hypothesis. The God of the gaps, who had explained the mysteries, shriveled up and blew away as humans felt enlightened by reason and rejected God's revelation as Creator and Sustainer of the world. Many Christians, when presented with the two books metaphor, ultimately dismiss the Bible as theoretical and difficult to understand. Once again they exchange the Creator for the creation in a contemporary mode.⁹ Indoctrinated by today's academic education process, most people will give preference to the study of nature as practical while considering the Bible an optional text, eventually abandoning it. Pastors know that younger

generations are losing their faith to secular science, and particularly to evolutionary explanations that dismiss God. The word "evolution" is attached to a metanarrative that has battled to replace the Christian story. Because of the conflict between our back-stories, it can be jarring, even for educated Christians, to hear a Christian scientist say that God facilitates evolution to perfect creation. It might be helpful to hear Christian scientists claim and defend that God created and is involved in the ongoing creative process, but that approach still defers to the book of nature as

providing the logic for interpretation.

Church leaders often indiscriminately embrace the scientific model, and run their churches like businesses, following the laws of nature based on what has proved to produce the numbers. When church growth is committed to scientific control, its proponents are often unaware that Scripture is inadvertently dismissed in favour of seeking guidance from "successful leaders." Their actions mirror those of the Hebrew people who followed Moses into the wilderness; in his absence, when he tarried on the mountain to meet with God, they made an image they could relate to, a golden calf, and called it Yahweh. They took what they valued in form and content, and labeled it God. We fall into the same trap when we deduce God's character from the conclusions of science.

Those who employ the two books metaphor seek to address a real concern, that many churches are afraid of science. But we must also note that science fears the field of the personal in church and therapy, and refuses to respect its equal place at the table of true knowledge. The scientist can speak from the pulpit, but is the theologian allowed to speak in the university classroom, or the pastor in his child's school?

Modern science has broken free from its original moorings, when, birthed in monasteries and universities of the Middle Ages, it studied the orderly world created by God. The Latin, *scientia*, properly refers to all human knowing. But modern science, refusing to engage with the subjective, or personal, dimensions of life, has hijacked the term to mean only objective knowledge, excluding the knowledge of subjects. Rather than sharing the word "science," natural science and its text have monopolized it.

Even Christian scientists with whom I have spoken are unwilling to apply the word "science" to the study of God or the realm of human relating that the Bible addresses. "The dwarves are for the dwarves," was C.S. Lewis's characterization of a people who disregard all but facts and proofs. ¹⁰ Modern scientists are for the world of hard facts. They rule out the

possibility that modern science could have anything to do with subjective relations—the personal (human) and theological (divine) dimensions of life. They concede those forms of study may have their place in private life. But to see theology as valid science degrades the meaning of the word "science" for those committed solely to objective science. Like King Midas and his golden touch, the character of objective science is detached and professional, metamorphosing into impersonal objects everything it contacts.

But pure objectivity is a myth. As Michael Polanyi points out, all knowers (scientists) are subjects or persons, so there is always a subjective or personal dimension of knowing both the objects of the world and other subjects. 11 Natural scientists, however, while acknowledging that pure objectivity is a myth, still protect the authority of science by excluding whatever realms they identify as subjective. This means that the two books cannot be equal; science is given priority, even by the scientist who is also a Christian. Science studies the book of nature: accepted as objective! As for the book of God's personal revelation: rejected as subjective! Knowing God and neighbour is not considered to be a serious discipline; only knowing the material world is considered valid science.

Thus, proponents of the two books metaphor might be said to offer an understanding of chess (God and the natural world) and study the chessboard, its pieces, and possibilities, but are restricted from discussing its strategies, great games, and personalities in history, and the subjective dynamics of playing the game (relating to God and neighbour). These are outside the realm of factual knowledge. Thinking one signed up to become a great chess player, instead one finds they have been brilliantly trained to dissect chess boards and expound the rules of the game.

Having this narrow knowledge doesn't mean one knows how to play the game. Studied through science, the mechanics of the world give us the kind of knowledge we need to live. Both nature and Scripture give us knowledge that helps us to live in

this world—to play the game. If we focus only on the rules of studying the world, we exclude from serious conversation the study of God and human relations.

However, the study of persons is the realm in which we most need insight and progress. The mission of the church is to know and love persons, starting with God. No one argues that science must study cancer to stop its destructive course in the body; that is a given. Nevertheless, we fail to acknowledge that whatever destroys marriages and international relations also needs serious attention and funding. The Bible calls us to healing in relationships with God, humanity, and the created order. This is the task of practical theology. But if we do not address the issues of personal relationships, we are bound to fail on many levels, including caring for the natural world as we abuse our natural resources.

To do theology means to listen to God, who re-centres our life to learn what love means for those reconciled to the Creator. If we think we understand love from our human experience, which we then apply to understanding God, we are no longer doing theology. We stand at a crossroads whenever we say, "God is ..." or "God wants ..." On one hand, we may listen to God through Scripture. But on the other hand, there is a real possibility we may make an image of God shaped by our own intuitions and interpretations. How quickly we forget that we are told in Romans 1 that everyone missed God's obvious nature so that all fell and did not know God. Therefore the Father sent his Son, so we could know God and be in relationship. That is the logic of Romans 1-3. Human ignorance and arrogance fail; divine grace and revelation save. Are we so much wiser now than then?

Science is at its best when it serves by living in a caring stance, both explaining and managing the created order. But we must not naively fail to recognize that science can just as easily exclude God and use nature for selfish gain. Scientific inquiry can be a great expression of faith seeking understanding. But all seekers of knowledge need to learn humility

so they may serve God and his creation. The church's history of arrogant control is certainly a real historical concern causing many scientists to resist the church's voice. But many modern scientists reject the church in order to singularly affirm the human place in dominating the world and using its resources. Together we must judiciously consider the future of science and technology with its potential for both good and evil. Both church and science must prophetically curb any dehumanizing dimensions of our existence in order to wisely serve God and humanity.

To understand and live within the material world as healers and stewards, the

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church needs to affirm the final authority of the Bible when properly interpreted, as well as support scientific findings for healthy living. But we require a much clearer interpretive strategy for the cooperation between science and theology than the two books metaphor provides. Pastors must teach that through the Bible we have tools to know and love God. Additionally, evolution, when properly interpreted, is not a threat, but is merely reflection based on human observation. Observation can teach us about the world, but

not about God. God will teach us about God; God's world will become understandable if, as good scientists, we pay attention. We cannot "listen" to its voice, but we can observe, hypothesize, experiment, and grow in understanding. We must work toward both good science and good theology.

I offer the following suggestions.

First, let us affirm that the task of the church is a seriously scientific investigation of knowing and being known by the Triune God. We stand within the task of the One Book. By scientific investigation or study, I mean that we know that the object of our study is a Subject, and we respectfully maintain a humble stance.

Humility is a requirement for all sciences. We must employ the tools appropriate to the task, namely the self-revelation of God in Christ as witnessed to in the Bible. Any claims as to who God is or what God wants must resonate with this authoritative text. The study must proceed in a humble community with consistent correction and improvement to communicate the things of God to the changing world. Its talk about God must be seen as unique to God. God, not human experience or culture, must fill out the definitions of love, grace, fulfillment, purpose, and other terms applied to God.

Second, knowing God as the Creator means we acknowledge that all creation is within the scope of God's care. Science appropriately studies the objects of the world, but must not dismiss the interpretive worldviews that make claim on origins and intentions. The church should cooperate with science insofar as both are called to stewardship through understanding. As a subset of the scientia (knowing) in which humans engage, natural science must be allowed to focus on its limited range of objects. While divisions of science further limit the field of attention within the set of objects to be studied, no discipline should claim final authority to make proclamations that encroach on other disciplines, nor exclude them. The church needs the natural sciences in order to fulfill its commission to love and tend God's world. And God, who causes rain to fall on the unrighteous, still cares for those ignorant of divine sustaining. "Father, forgive them, they do not know what they are doing" is a proclamation from the cross that we all act out of arrogance as well as out of ignorance.

Third, the church must acknowledge that the Bible affirms both personal growth and material decay. The biological lifecycle ends in death and separation. Our bodies grow old. Our families move out and away. We cannot depend on this world to sustain us forever, but it is our current home, the realm of God's activity to redeem and renew. God values this material world by creating it, by taking on flesh to reconcile it to him, and by promising

final redemption in a new creation. We live in the tension of the temporary nature of this world and the eternal nature of our spiritual being. Since God values both, so must we.

Fourth, we must remember that science is not objective; it is the work of persons with faith commitments. Some scientists acknowledge that it is impossible to fully accomplish the attempt to create an exhaustive "book of knowledge," entirely free from subjectivity, about the natural world. Many people are not educated in the humanities and become naively assimilated into the technological system. All of us have presuppositions that influence our thinking without knowing it. Christians must honestly admit that this is also true when interpreting the Bible. Thus, whenever either science or church demands authority that belongs to God alone, we need to call for correction. Humility is the mark of all scientific study that seeks to pursue the truth.

Finally, both church and science live as communities of "faith seeking understanding" for the purpose of serving God, humanity, and world, to create a community who lives from love, following the greatest commandment. We are not to live in fear, confined to dwell in Christian ghettos of ignorance, unwilling to talk about controversial aspects of life. Although science cannot show us God, it can help us serve God. I believe Christian scientists are not trying to lead us astray, but to draw the world together in understanding in order to be responsible to creation's needs. But the church must insist on the priority of the personal over the objective. God addresses us as persons, not as mere bodies, which are necessary but not sufficient for living life. Scripture interprets God's purposes toward us and gives meaning to science¹² as extending God's charge to Adam and Eve to care for creation. If this priority is not maintained, the power of technology, derived from nature, will supplant the biblical values that should inform technology in the first place. As Christ-followers, we are to be set

on a hill within churches, observatories, hospitals, universities, and all manner of wonder-filled communities of devotion who work for God and his world. X

Endnotes

1 Ludwig Wittgenstein, *Philosophical Investigations* (Malden, MA: Wiley-Blackwell, 2009), 98.

2 See Avihu Zakai, The Rise of Modern Science and the Decline of Theology as the "Queen of Sciences" in the Early Modern Era (London: Equinox, 2009), and Kenneth J. Howell, God's Two Books: Copernican Cosmology and Biblical Interpretation in Early Modern Science (Notre Dame: University of Notre Dame Press, 2002).

3 Harold Turner, The Roots of Science: An Investigative Journey Through the World's Religions (Auckland: Deep Sight Publishing, 1998).

4 Deborah B. and Loren D. Haarsma, Origins: A Reformed Look at Creation, Design, and Evolution (Grand Rapids, MI: Faith Alive, 2007), 58.

5 John Calvin, Institutes of the Christian Religion, ed. John T. McNeill, trans. Ford Lewis Battles (Philadelphia: Westminster Press, 1960), 1.6.1.

6 For example, the motif is highlighted at the Biologos website, "Since God is the author of both books, there are theological and devotional reasons to embrace science as a way of learning about God," http:// biologos.org/resources/cosmos-regent-college. The image is used affirmatively at conferences for pastors as an image to bring clarity to the faith-science dialogue. An advertisement for a conference in Texas states as one of its core purposes: "The 'Two Books' metaphor has long been a way to express the dual nature of God's revelation, in scripture and in nature, and this presentation will be helpful for the non-scientist to learn more about the methods and limitations of science in the quest for knowledge." The conference speakers, representing leading evangelical voices in the faith-science dialogue from around the world, appear to affirm this as a key metaphor (http://hillcountryinstitute.org/?p=424).

7 Robert P. Crease, "The book of nature," in Physicsworld.com, December 6, 2006, points out that for Galileo, "the signs of nature had their own self-contained meaning. To understand nature one did not need to rely on the Bible as an allegorical aid; studying nature was an independent activity best carried out by a separate, professional class of scholars." It was a metaphor of distinction, rather than collaboration or cross-reference.

8 Jeremy Begbie, Voicing Creation's Praise: Toward a Theology of the Arts (Edinburgh: T&T Clark, 2000), unpacks the role of the arts in articulating what the inarticulate creation cannot say.

 See humanity's downward spiral in Romans 1.
 C.S. Lewis, The Last Battle (1956; repr, New York: HarperCollins, 1984), 156.

11 Michael Polanyi, Personal Knowledge (Chicago:

University Press, 1974).

12 See George L. Murphy, "Reading God's Two Books," in *Perspectives on Science and Christian Faith* 58, no. 1 (March 2006), 64–67.

The Two Books Metaphor: A Response

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the dangers of the "two books" metaphor is an important caution. He is quite right to remind us that although both creation and Scripture convey knowledge about God. creation will not in itself lead us to a knowledge of the personal God, the God of Abraham, Isaac, and Jacob-the God revealed in Jesus. For that we need words. He is right as well to remind us that we cannot read ethical principles directly off of nature. The last century is littered with the wreckage of such attempts, ranging from Social Darwinism to the Nazis. And he's right to remind us that if eisegesis is a problem in reading a text with words, it is also a problem in "reading" wordless

arty Folsom's warning about

Folsom tells us in his title that he intends to provide a critique and a caution. Yet his caution itself needs to be read with great caution. What is missing is an appreciation of the two books metaphor—and without some appreciation of the value of the idea, it is hard to accept cautions or critiques that omit that value. The omission is clear in the opening paragraph, where we read:

nature, where it is also possible to twist the

"text" to fit our preconceptions.

The two books metaphor presents Scripture and nature as having a common author, hence both capable of revealing God. This image intends to open avenues of investigation in knowing God, and to bring value to both theology and science. One would expect that judicious beginning to be followed by some recognition of how seeing creation as a book has indeed "opened avenues" and can "bring value to both theology and science." The metaphor has certainly done these things. Yet we find no such appreciation. Folsom moves from his hopeful beginning directly to the critique: "Historically, this has proven to be a dangerous image."

Dangerous, yes—but in the wrong hands, all good things are dangerous, even the Bible when used or "read" in the wrong way. What we need is not an unqualified critique of the metaphor, but some guidance on how to use it.

Dennis Danielson's superb anthology The Book of the Cosmos is a rich source both for understanding the historic fruitfulness of the two books metaphor, and for guidance on it's proper use. Danielson is a professor of literature at UBC and thus trained in the reading of texts. In his own introduction, in defense of the use of the word "book" in the title, he writes:

It will be clear from Chapter 1 [which deals with Biblical texts] onward how persistent is the idea that we can hear the heavens speak, and that the cosmos is a book that we can read. The same profound analogy of verbal communication undergirds much cosmological writing, and, as my title intimates, informs the overall conception of The Book of the Cosmos itself.¹

Danielson is clear (and here he agrees

with Folsom) that it is an analogy to say that the cosmos communicates verbally. But it is, he insists, a profound analogy. In the same introduction, Danielson speaks of the whole "splendid evocation of the verbal," which, he says, contains order and meaningfulness—but also ambiguity. And he is speaking here of all verbal texts. Certainly "the book of nature" does not carry with it unambiguous meaning, as Folsom repeatedly warns us. But neither, always, does the book of Scripture. The two texts are often necessary in order to illuminate each other, to remove some of the ambiguity.

Folsom appeals to Calvin here, who did make use of the two books metaphor. However, he says, "Calvin did not see them as two equal books; the Bible, as a pair of enabling spectacles, was necessary to truly interpret what was indiscernible in nature." And certainly written Scripture does provide us with such "enabling spectacles" through which to bring a confusing world into focus. What Folsom overlooks, however, is that Calvin also recognizes that sometimes we need the book of nature to help us rightly understand Scripture. One of the selections in Danielson's anthology is a passage from Calvin's commentary on Genesis 1:16 ("and God made two great lights"). Calvin explains:

Moses makes two great luminaries; but astronomers prove by conclusive reasons that the star of Saturn, which on account of its great distance appears the least of all, is greater than the moon. Here lies the difference. Moses wrote in a popular style things which, without instruction, all ordinary persons endued with common sense are able to understand; but astronomers investigate with great labor whatever the sagacity of the human mind can comprehend. Nevertheless, this study is not to be reprobated, nor this science to be condemned, because some frantic persons are wont boldly to reject whatever is

unknown to them. For astronomy is not only pleasant but also very useful to be known; it cannot be denied that this art unfolds the admirable wisdom of God. (Quoted in Danielson, 123-24)

If we are concerned to know the size of

the planets, implies Calvin, we need to look through the "spectacles" of astronomy, an art which "unfolds the admirable wisdom of God." But the writer of Genesis was speaking in the language of ordinary folks, concerned with communicating greater truths. The purpose of the two books needs to be kept in mind. Of course they are not "equal"—but they need to be read through each other with discernment.

A little further on in his book Danielson cites Tomasso Campanella, a Catholic writer, in defense of Galileo. Galileo had written book of Scripture. eloquently in defense of the idea that God is the author of both Scripture and the heavens, and insisted that often necessary in "one truth does not contradict another truth." Campanella concludes, "wisdom is to be read in the immense book of God, which is the world, and to remove some of there is always more to be discovered. Hence the sacred writers refer us to that book" (quoted in Danielson, 176).

I suspect Folsom knows all this. I suspect too that the real target of his article is not the two books metaphor itself, or science itself, but a particular kind of science that reads only the book of the world and treats Scripture as irrelevant. As he says:

Science originated with a foundational belief in an orderly world

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created by God. But through the two books mode of thinking, the book of nature usurped faith. God became viewed deistically, as watching from a distance, as a God who set up and then exited his self-sustaining, mechanical universe. God became merely an unnecessary hypothesis.

But the idea of creation as a book containing news of God does not in itself

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lead to belief in a Godless universe. Among the epigraphs to the Danielson's Book of the Cosmos are these words from Bonaventure: "The whole world is a way, a shadow, a trace, a book with writing front and back." That Franciscan attitude opened the world to investigation in a new way, as these other words from Bonaventure's The Mind's Road to God make clear:

He, therefore, who is not illumined by such great splendor of created things is blind; he who is not awakened by such great clamor is deaf; he who does not praise God because of all these effects is dumb; he who does not note the First Principle from such great signs is foolish. Open your eyes therefore, prick up your spiritual ears, open your lips, and apply your heart, that you may see your God in all creatures,

may hear Him, praise Him, love and adore Him, magnify and honor Him.²

It is a tragedy that the science that resulted from such an understanding of creation as words from God has sometimes been closed to the written Word of God. But the source of the tragedy is not the two books metaphor itself. Tracing that tragedy is a long and complicated story, but the tragedy would be compounded if Christians—already somewhat suspicious of science—were further discouraged from the whole-hearted investigation of creation. Certainly for reading the book of creation we need Calvin's "spectacles" of Scripture. But equally, if we are to fully understand the cosmos God is creating and redeeming, we need to read Scripture through the "spectacles" of science.

The Jesuit poet Gerard Manley Hopkins was a great "reader" of both Scripture and creation. In a private meditation, he wrote,

God's utterance of Himself within Himself is God the Word; outside himself is this world. The world then is word, expression, news of God. Therefore its end, its purport, its meaning is God and its life or work to name and praise him.³

Hopkins's words express well the spirit in which the book of creation should be read, whether by the poet, the scientist, or the ordinary Christian. It would be a tragedy indeed if that book were to become closed to Christians through legitimate cautions about misreading it. X

Endnotes

1 Dennis Danielson, ed., The Book of the Cosmos: Imagining the Universe from Heraclitus to Hawking (Cambridge, MA: Perseus Publishing, 2001), xxvi. (Subsequent references to this book follow the citation in parentheses).

2 Bonaventure, The Mind's Road to God, trans. George Boas (Indianapolis: The Library of Liberal

3 Gerard Manley Hopkins, Sermons and Devotional Writings, ed. Christopher Devlin, S.J. (London, Oxford University Press, 1959), 129.