Hermeneutics for Reading the Book of Nature: A Response to Angus Menuge

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This response discusses Menuge's paper and areas of mutual agreement and dispute regarding distinct hermeneutics for science and natural theology; claims for Intelligent Design belong to natural theology, not to science. Reasons for clearly separate hermeneutics in science and natural theology are given by contrasting Aristotle's modern and harmful influence with a different alternative for biological science.

Angus Menuge's paper "Interpreting the Book of Nature" discusses ideas of design in nature and their historical relation to science. As referee of an earlier version, I urged the author to relate his arguments to existing debate in *Perspectives on Science and Christian Faith (PSCF)* on naturalism and Intelligent Design (ID). Since many of Menuge's arguments bear on my tandem article in the March 2002 issue, I mentioned it as material to which he could establish clear connections. Menuge has responded cordially to this invitation, bringing his own philosophical "take" to it. His paper ends by discussing my arguments for naturalism, marking points of essential agreement—and some unresolved issues—in his own presentation.

That nature (like Scripture) is a book with a divine Author, and that Christians who are scientists should read it with this understanding, is foundational to the American Scientific Affiliation and to *PSCF* as its house journal. How we are to interpret this book, and relate such an understanding to the meaning and conduct of the scientific enterprise, underlies some watershed debates in the ASA's history.[1] Menuge has aptly chosen to discuss design in relation to science in terms of the *hermeneutic(s)* we choose (or use) to read the book of nature.

The Philosophical Tradition in Relation to Design and Scientific Enterprise

Menuge develops a philosopher's history of how people began to think about rational order in nature and *the part belief in, and concepts of, design played in sustaining such thinking*. While it has familiar elements, many of us would not trace this story in quite the same way. For example, the author sees Aristotle's influence on scientific thinking much more positively than many scientists would.[2]

In arguing for naturalism as a policy in science, Part I of my March 2002 article pointed out Robert Boyle's pioneering role in proposing the "mechanical philosophy": a naturalistic discourse clearly separated from theology in its presuppositions and terms of reference. Boyle argued for *two* quite distinct *hermeneutics* for reading the

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book of nature. One, the *limited* discourse of the mechanical philosophy, concerns itself with secondary and proximate causes of things, in particular their mechanisms, and is quite properly naturalistic. However, this is sustained and informed by a second, *broader* discourse in which the larger meaning of nature, its *telos* and/or final causes, is an important theme. This broader "reading" is concerned with philosophical ideas transcending the subject matter of science and its explanatory paradigms; for the Christian, it necessarily has *theological* terms of reference. Ideas of design or order in nature, for example, belong to this discourse and indirectly affect our thinking about science. Whether such ideas have meaningful *surrogate* representations within the naturalistic terms of reference for science is an open question, only resolved in scientific enterprise itself. (We may say, for example, that the notion of "laws of nature" in physical science, which has scientific meaning, is a naturalistic surrogate in science for essentially *theological* ideas of God's purposive and faithful sustaining of creation.)

Menuge's paper sketches how a multiple set of hermeneutics for reading the book of nature has emerged with the rise of modern science. He mostly concurs with my argument for naturalism in science: Naturalism *means* that in *scientific* discourse we deliberately refrain from introducing divine agency (or direct surrogates for it) into explanatory paradigms and subject matter. More fundamentally, we agree that the limited hermeneutic principles of science require support by a broader interpretive framework. Adequate hermeneutics for this broader reading may properly involve presuppositional beliefs about design, order, purpose, etc., which creatively inform scientific thinking. Hence *natural theology* is entirely legitimate. Menuge and I both believe that the *materialist* world view informing most modern thinking about science—particularly as manifest in dogmatic claims about evolutionary theory—likely will be unable to sustain scientific enterprise in the long run.

Design and Natural Theology

Menuge's paper deals with natural theology. I claim discussion of design properly belongs to that interpretive hermeneutic, and Menuge's general agreement with my arguments for naturalism in science mostly concedes this. Even where he disagrees (on whether evidence for an attenuated divine agency could be discerned scientifically), his arguments still concern natural theology—not how research might clearly demonstrate such evidence.

Menuge discusses implications of design in the world-picture given by modern *physical* science (the standard cosmological model and its "fine-tuning" aspects); but this too is natural theology.[3] The inference of design in the physical world is not *essential* to physical science itself, no matter how surprising are the "coincidences" we find in its physical parameters. The anthropic principle and similar arguments belong to natural theology, not to physics. That design plays no essential role in explanatory concepts of physical science, but belongs to natural theology, suggests to many of us a similar conclusion about ID in biology. This is reinforced by examining thematic concerns of many ID proponents.

Menuge's discussion suggests some discomfort with the emergence of distinct hermeneutics for science and natural theology—particularly where these appear to be rivals rather than mutually related. I believe the separation is healthy—and also theologically instructive.

Perhaps Menuge has not appreciated the real aims of my tandem article. I was not *only* "raising a red flag" about confusing science and natural theology. I further argued that a proper understanding of naturalism offers scope for new paradigms in science, which need not be limited to the *mechanistic* paradigms of physical science. While I agree with ID proponents that a materialistic world view fosters a sterile dogmatism in evolutionary theory, I have argued *against* ID as science. Instead, Part II of my article proposes that a *logic of function* offers a relevant naturalistic paradigm for biology.[4]

Reasons to Keep the Hermeneutics of Science and Natural Theology Separate

1. Aristotle's Baneful Influence. Medieval thinking about science was blocked by Aristotle's notion of the *Forms,* inherent *telos* or final cause determining the destiny of each thing in nature. Bacon and Boyle showed how to escape Aristotle's influence on physics; but for many Christians, Aristotle's view (suitably baptized) remains the determining truth for biology. Belief in the fixity of biological species may claim biblical authority in the characterizing phrase "*after its kind*" in Gen. 1:24–25—but this is *Aristotle's interpretation* of the text. For Aristotle, fixity of species provides the operative means by which a sovereign divine reason as final cause controls the world order. Medieval philosophy insisted "true" explanation of anything must link its essence/behavior to its necessary final cause or *telos*.[5] Other explanations (secondary causes/mechanisms) "*merely save the phenomena*."

Since biosystems *do* manifest a kind of goal-directedness in their development and behavior, Boyle realized their proper explanation lay outside the limited competence of the mechanical philosophy—which could accommodate no concept of *telos* in its heuristic terms of reference. Even though he and his contemporaries saw that mechanism played some part in secondary causes, they believed a true understanding of living things necessarily entailed theological explanation. Menuge describes

how Darwin's claim that the variety and complexity of living things is the result of a purely *mechanistic* process challenged this tradition at its foundation and provoked major controversies.

But the biblical account of creation does not really support Aristotle's doctrine—or the fixity of biological species. For Genesis 1, the sovereignty of God is foundational; but the narrative *actually describes* an unfolding of God's generosity, expressed in an increasing freedom and potentiality given to creation. Divine blessings conferred on living creatures and then specially on humans are important clues. This unfolding leads to human beings in God's image—able to choose freely in personal relationships to each other and God. In Scripture, the challenge to divine sovereignty posed by creaturely freedom is only resolved by God's involvement in the contingency of creaturely suffering, with its evil and irrationality. It is *not* resolved by the intrinsic *control of destiny* which Aristotle's doctrine of the *forms* asserts.

As argued by many ID proponents, ID means God's agency is the effectual explanation for biological origins. If a *telos* is manifest in living things, it must be linked to divine agency. Mechanism has perhaps a limited part to play in the later development process, but ID has guaranteed the emergence of life as it is. Considered as *scientific explanation*, ID is far too closely tied to Aristotle. It preempts the possible *further meanings* to be discovered in living things.

2. A Creaturely *Telos*. Menuge mentions Kenneth Miller's belief that divine purpose and agency are expressed "in ways consistent with scientific materialism" (p. 97, note 48). Significantly, he does not debate Miller's thesis: If a mechanistic theory of biology *were* proved adequate, it would still be consistent with rational belief in divine purpose and agency.[6] I think Miller is mistaken in believing a purely mechanistic theory can explain biology, but this is a matter of *scientific* judgment.

However, there is another possibility: If (as Genesis describes) creation is an increasing development of creaturely liberty, a *creaturely* goal-directedness or embodied *telos* is just what we should find.[7] Even the most rudimentary biosystems manifest logical organization directed to certain (limited) achievements. As Part II of my article proposed, this logical organization according to function can be explored on its own terms—as an objective aspect of a naturalistic *science*; interpretation in terms of divine agency is not essential. By such a naturalistic study of creation in its own contingent terms of reference, we would only discern the embodied logic of creaturely things themselves, not their transcendent divine purpose or design.[8] This is characteristic of science.

While such a naturalistic enterprise necessarily remains open to the question of biological evolution, it does *not* intend to explain the *origins* of life, but only to understand the logical organization of biosystems as they *now* exist, develop and change. The mystery of life's origin may properly be left to natural theology,[9] at least for now. ✦

Notes

[1]For example, see Ronald L. Numbers, *The Creationists* (Berkeley, CA: University of California Press, 1992). Numbers discusses the history of active participation, in the ASA's earliest days in the 1940s and 50s, by recent-earth creationists and others who believed literal readings of Genesis could be supported from scientific evidence—and the eventual secession of these creationist movements and their adherents from the ASA after it became clear that under the influence of its pioneering leaders ASA's terms of reference were committed to the legitimacy of scientific evidence and scientific methods of inquiry.

[2]Of course, Aristotle's original classification of various notions of "cause" helps support the author's argument that design as a concept contributed foundationally to science.

[3]This is also true of every attempt I have seen by ID proponents to extend their argument for design to the findings of physical science.

[4]Daniel Dennett's notion of an *artifact hermeneutics* for biology (*Darwin's Dangerous Idea* [New York: Touchstone, 1995], 212–20.) tacitly acknowledges that such organization is evident in biosystems and may even offer some utility in forming explanatory paradigms—even though Dennett does not believe the organization is real. In this essentially postmodern way, Dennett rationalizes the inability of even *scientific* language about biology to avoid some notion of a limited *telos* manifest in organization/behavior of living things.

[5]T. F. Torrance, *Theology in Reconstruction* (London: SCM Press, 1965); reprinted in paperback (Grand Rapids, MI: Wm. B. Eerdmans & Co., 1975). Compare esp. section I, chapter 4 and some related discussion in other early chapters.

[6]Menuge has given some attention in his paper to theological problems posed by such an outcome. Such problems (and also their possible resolutions) are always entailed for natural theology by scientific discovery—and rightly so.

[7]Divine blessing to living creatures on the fifth day confers a limited freedom to innovate and fill the space given. In effect God is saying: *"Do your thing!"*

[8]Theologically, such a situation invites the idea that God's work of creation, like his work of redemption, may be seen as the expression of a self-giving, self-emptying love: that is, creation seen as *kenosis*. While this view poses some difficult questions, it deserves serious consideration. See John C. Polkinghorne, "God in Relation to Nature" in "The 1998 Witherspoon Lecture" (Princeton, NJ: Center of Theological Inquiry, 1998); cf. also Polkinghorne's essay in *The Work of Love: Creation as Kenosis*, J. C. Polkinghorne, ed. (Grand Rapids, MI: Wm. B. Eerdmans Publishing Co., 2001); and a few related comments by other contributors to that volume.

[9]Some proponents of ID who focus on the problem of life's origin (i.e. the origin of information in genetic material) provide a sound scientific criticism of the fallacies in all mechanistic theories to the present time; Stephen C. Meyer's negative critique of "chemical evolution" theories is particularly acute. I suggest that Meyer's proposal of design as the best logical inference to explain the problem of origins is a reasonable argument—in *natural theology*.