

these Christians interpret a particular text, they perceive science as anti-Scripture and anti-God.

In contrast, *Reconciling the Bible and Science* provides a context for how both books of God should be embraced by believers. It reveals how the philosophical contributions of Plato, Aristotle, Augustine, and Aquinas underpin modern science as well as religious concerns among current creationists, the intelligent design movement (ID), and theistic evolutionists (chaps. 1-2). The book then traces the history of modern astronomy through Copernicus, Galileo, and Newton (chap. 3) before focusing on Charles Darwin and his successors in the field of biological evolution, who have verified, corrected, and expanded upon many aspects of his theory (chaps. 4-6).

The book proceeds to identify the roots of the current debate between those fearful of science because of their faith and those disdainful of religion on account of science, effectively defining important terms such as "falsifiable," "theory," and "myth." The authors then trace the more recent history of the controversy through the court cases involving attempts by ID to place its curriculum in public schools. While the authors agree that God is the intelligent designer behind the universe, its great age, expansion, and the evolution of its inhabitants, they are not convinced that ID is science (p. 248). The authors treat fairly both scientific creationists and ID with whom they disagree, showing how some within those camps have a nuanced acceptance of scientific discoveries, such as the age of the universe, while still attempting to find science in the Bible and to build upon it (chaps. 9-10).

Mitchell and Blackard reveal early on their stand with theistic evolutionists, and then demonstrate why in Part II (chaps. 11-14). Although they are sympathetic to Stephen Jay Gould's "non-overlapping magisteria," they prefer theistic evolution's recognition of God as the creator who works through evolution (p. 145). They believe the latter involves more dialogue between "scriptural revelation and the testimony of the created universe" (p. 149). They boldly assert that biblical literalism "turns attention away from the central religious concerns of the Bible's authors. Much religious language was not intended to be read literally ..." (p. 172). Indeed, to expect the ancient Scriptures to reveal or to be concordant with modern science is a cheerless failure of the imagination.

Knowing when, where, and how the perceived science-theology conflict arose and mutated is crucial to realizing that the conflict does not have to be. Nonetheless, some readers may find tedious the sheer length of material leading to the discussion of biblical interpretation in chapters 12-14. The material in chapter 12, which includes the section "Reading the Bible for what it is," could have come much earlier in the book.

Also, the authors may have feared that further citations would have made *Reconciling the Bible and Science* less accessible, but readers would benefit by more of them, as well as a short list of resources for further study at the end of each chapter. For example, what is the textual evidence for their claim that, at the beginning of the seventeenth century, people began to see the Bible as an infallible source of information about science, and that the Bible had been "dictated" by God? (p. 49).

I have a few other quibbles. The authors repeat that the purpose of the biblical creation stories is to oppose polytheism (p. 25), but the accounts have other functions. They are etiological; they explain the world as we see it—farming, marriage, shame and modesty, the trials of parenting, and adversarial relationships between spouses and between brothers. Regarding the order of the Hebrew Bible, the authors assume that Malachi is the last book and that between Malachi and Matthew were "silent years" (p. 23). Actually, Chronicles is the last book in the Hebrew Bible and 400 BC to 0 were anything but silent in terms of Jewish literature. Daniel was, in fact, written during these years, and seemed for a time to reside in the prophetic division. In addition, regarding the New Testament canon, Mitchell and Blackard claim that "Marcion began the process," but this gives him too much credit. Scholars of the New Testament canon know that Marcion created a canonical list around AD 140, but most of the books of the New Testament were already being transmitted as authoritative at that time, or else Marcion would have had no books to excise from his list, even though, as they note, a list identical to the present New Testament is not found until the late fourth century.

All in all, I recommend this book to all who cannot ignore the wonder of God's universe as revealed through science; who are convinced that Scripture permits us to hear how our ancestors in the faith met God; and who recognize that it is the means by which our walk with God is illuminated.

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Letters

Humans: The Supernatural in Nature

Michael L. Peterson, "C. S. Lewis on Evolution and Intelligent Design," (*PSCF* 62, no. 4 [2010]: 253) presents a comprehensive study of C. S. Lewis on the theory of evolution, the argument from intelligent design, and how Lewis would distinguish the philosophical arguments for a Transcendent Mind from the current claims of the intelligent design (ID) movement.

The central issue in all arguments and discussions regarding the scope of science is based on the distinction between the notions of methodological naturalism in science from those of philosophical naturalism. Methodological naturalism is the scientific approach of restricting the explanation of *natural phenomena* to *natural causes*. Philosophical naturalism, on the other hand, is the metaphysical view that nature alone is real, that the supernatural does not exist. However, it is not often clear what one means by "natural phenomena" and "natural causes." For instance, is human reasoning a natural phenomenon based on natural causes? Lewis considers human reasoning to be supernatural.¹ Therefore, it seems that methodological naturalism presupposes physicalism, which can only deal with the physical aspect of human beings, and so can never give a complete description of what a human being is.

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Note that physicalism implies that purely physical devices can collect, in principle, all the data that form the assumed reality. Therefore, methodological naturalism equates the real with the physical. Of course, what is real ought to be the totality of all that can be “detected” directly by human beings together with data collected with the aid of purely physical devices, the latter data encompassing only the subject matter of science and not the whole of reality.

In evolutionary theory, one applies the results of the experimental sciences to construct a temporal development, connecting cosmic evolution and biological evolution supporting the appearance of human beings. However, it is hard to understand how Lewis would subscribe to such a theory that leaves out the true essence of human beings, namely, their ability to “detect” God, which is Lewis’s “argument from reason.” The “detection” is based on the supernatural nature of human reasoning in which the inferior supernatural being “detects” the infinitely superior supernatural Being. Purely physical devices cannot accomplish that. Accordingly, one can do experimental science and develop theories summarizing the data without invoking God; however, the true nature of humans, who are the doers of science, will remain hidden from studies that assume methodological naturalism.

Peterson indicates, “ID views itself as reviving and updating the eighteenth-century argument for God which assumes that science can discover traces of a designing intelligence in the natural world” (p. 256). The enterprise of science involves using collected physical data together with prior information that allows humans to make Bayesian inferences. Of course, if one begins with physical data, then such inferences relate to the physical aspect of reality only and not to the supernatural aspect. The whole of reality, that is nature, involves, in addition to the purely physical data, nonphysical data “detected” by humans. Note that human (supernatural) reasoning is used to make scientific inferences from purely physical data, that is, the doing of science itself requires the supernatural.

It is clear that attempts to answer questions of what constitutes nature must be based on the kinds of knowledge one uses to make sense of the whole of reality. William Oliver Martin characterizes kinds of knowledge as being autonomous or synthetic.² The latter are reducible to two or more of the autonomous (or irreducible) kinds of knowledge. Martin considers six autonomous kinds of knowledge: history (H), metaphysics (Meta), theology (T), formal logic (FL), mathematics (Math), and generalizations of experimental science (G). Metaphysics and theology constitute two domains of the ontological context. Martin indicates the role that autonomous kinds of knowledge play in synthetic kinds of knowledge, namely, instrumental, constitutive, and/or regulative. For instance, historical propositions are constitutive of G, metaphysical propositions are regulative of G, and propositions in formal logic and mathematics are instrumental to G. Theological propositions are not related to G.

Notes

¹C. S. Lewis, *Miracles* (New York: The Macmillan Company, 1971), Appendix A.

²William Oliver Martin, *The Order and Integration of Knowledge* (Ann Arbor, MI: The University of Michigan Press, 1957).

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Taking Neuroscience Seriously

Mihretu P. Guta accuses me of neuroscientism, claiming that I assert that the proper knowledge of human nature is only attainable via neuroscience (*PSCF* 63, no. 1 [2011]: 69–70). This was most certainly not the intention of my article (“Peering into People’s Brains,” *PSCF* 62, no. 2 [2010]: 122–32), and I am surprised that he considers this to be my position. More importantly though, we cannot dismiss neuroscience and the role of the brain in human life as readily as Guta does. The thrust of the developments outlined in my article is that neuroscience, in some circumstances, is beginning to claim that it can provide something akin to first-person descriptions. The adequacy of these is a matter for debate, and I questioned some of the claims.

However, Guta’s example of the hurtfulness of pain is not entirely convincing. I readily accept that neuroscience can tell us only a limited amount about how I (or someone else) experience pain. Nevertheless, when sitting in the dentist’s chair, it is comforting to know that the dentist has an intimate knowledge of nerves such as the inferior alveolar, when injecting an anaesthetic into the appropriate one prior to working on my tooth. Pain is objective, regardless of whether my experience is slightly different from yours, and neuroscience is indispensable in understanding some aspects of it and controlling it, at least to a degree.

The dramatic, and sometimes appalling, pathologies that result from brain injuries or drug-based manipulations of the brain, show that the gulf between first- and third-person descriptions can become exceedingly murky and ill defined. Whether we like it or not, neuroscientists can peer into ever more intimate aspects of our thought life, and on occasion, can even manipulate it. Christians should not close their eyes to what is going on all around them in neuroscience laboratories.

Similarly, my description of the color “blue” may or may not be the same as someone else’s, but this does not make redundant attempts to determine which parts of the visual cortex are responsible for the perception of color. There is a powerful personal element to all our conscious responses and reactions, but this in no way invalidates the point I made in my article about the centrality of the brain (and other parts of the nervous system) for many facets of what makes us what we are.

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