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Religion and Science in the Context of Church History: Recent Developments

“Science-religion studies” appear to be growing with great rapidity. Over the past few years, a significant infusion of funds from the John Templeton Foundation, in particular, has fostered the growth of college courses, regional centers of study, and a body of literature—all suggesting the emergence of a new interdisciplinary field. Yet there remains some uncertainty about how this field of study might fit established programs of *theological* education, despite the explicit aim of Sir John Templeton to foster “progress in theology.” With these developments in mind, this review examines some of the recent literature in the field with an eye toward assessing its relevance for church history.

HOW AND WHY CHURCH HISTORY?

Arguably, the science-religion field originated as an exercise in church history. Indispensable historiographic essays on the subject are in James R. Moore’s exemplary monograph *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America, 1870–1900* (Cambridge: Cambridge University Press, 1979) and David C. Lindberg and Ronald L. Numbers’ extremely useful anthology *God and Nature: Historical Essays on the Encounter between Christianity and Science* (Berkeley: University of California Press, 1986).

The seminal texts are two, each written by Anglo-Americans of the Victorian age: John William Draper, *History of the Conflict between Reli-*

gion and Science (New York: D. Appleton & Co., 1874) and Andrew Dickson White, *A History of the Warfare of Science with Theology in Christendom*, 2 vols. (New York: D. Appleton and Co., 1896). Draper and White described a historic relationship between science and religion as a battle between free thought and dogmatic faith. In Draper's view, Roman Catholicism epitomized repressive religion while the Protestant Reformation set the groundwork for open-minded inquiry. White extended the critique of dogmatism to encompass the sectarian Protestantism he saw impeding the progress of higher education. In sum, historical discourse about science and religion emerged as part of a polemical tradition, and much of the historical work since Draper and White has been a response, in one form or another, to a story line of warfare.

Admittedly Draper and White are not current works; however, the recent republication of White's text (by both Prometheus Books in its Great Minds Series in 1993 and by Thoemmes Press in 1997) indicates the ongoing appeal of the "Conflict Thesis." More pointedly, one recent version of the thesis has added a forceful if controversial feminist perspective to the historiography. Margaret Wertheim's *Pythagoras' Trousers: God, Physics and the Gender Wars* (New York: Random House/Time Books, 1995) describes the discipline of physics, in particular, as "the Catholic church of science" because it has historically excluded women from positions of "epistemological power."

HISTORY OF SCIENCE AND HISTORY OF THE CHURCH

Most of the recent revisions of the conflict thesis (and its complement of harmony) have come from the pens of historians of science intent upon freeing their discipline from polemics. Preeminent among these is British historian John Hedley Brooke. His *Science and Religion: Some Historical Perspectives* (Cambridge: Cambridge University Press, 1991) reviews several major themes in the science-Christianity relation, describing multiple ways these two complex social systems have interacted in different contexts. Although generally confined to Anglo-American Protestantism, the book does raise issues of general interest in church history, including the role of natural theology, the connection between reform in religion and reform in science, and the emergence of alternative, secular forms of piety among the educated classes.

More recently, Brooke has teamed up with fellow historian Geoffrey Cantor to offer further "historical commentary" on specific areas of debate in the science-religion field. Their 1995–6 Gifford Lectures (a typical, initial forum for works in this field) appeared as *Reconstructing Nature: The Engagement of Science and Religion* (Edinburgh: T & T Clark, Ltd., 1998). The authors criticize "master narratives" that presume to tell how abstract, timeless entities of "science" and "religion" interrelate.

They suggest, instead, that the ongoing cultural task of “reconstructing nature” occurs in many ways over time, involves a multifaceted “engagement” between scientific and religious discourse, and can be studied by different approaches. For the church historian, the book provides additional keys and tools for understanding how social context shapes public discourse about God.

Several recent works have done a similar service for the history of the Church in America—with a similar suggestion of significant themes for the church historian and a predominantly Protestant focus. The works of Ronald L. Numbers, in particular, have carefully explored the depths of conservative Protestant response to evolution. His definitive treatment of twentieth-century creationism, *The Creationists: The Evolution of Scientific Creationism* (New York: Alfred A. Knopf, 1992), highlights the influence of Christian millennialism in this characteristically American movement. His more recent book, *Darwinism Comes to America* (Cambridge Mass.: Harvard University Press, 1998), follows the complexity theme of historians of science, analyzing the varieties of anti-evolutionism since Darwin. Once again, little attention is paid to the Catholic response. For that, one should consult R. Scott Appleby, “Exposing Darwin’s ‘Hidden Agenda’: Roman Catholic Responses to Evolution, 1875–1925,” in *Darwin’s Reception: The Role of Place, Race, Religion, and Gender*, ed. Ronald Numbers and John Stenhouse (New York: Cambridge University Press, 1999).

Additional, recent works on science and religion in the American context offer the possibility of developing a rather full case study of Church and society in the twentieth century. Two particular books stand out: Edward J. Larson *Summer for the Gods: The Scopes Trial and America’s Continuing Debate over Science and Religion* (Cambridge Mass.: Harvard University Press, 1997) and James Gilbert, *Redeeming Culture: American Religion in an Age of Science* (Chicago: The University of Chicago Press, 1997). Larson analyzes the cultural meanings of the Scopes Trial of 1925 while Gilbert looks in greater detail at public discourse about science and religion in the decades following. Together, they move the discussion beyond intellectual history and paint a complex picture of Christianity in American culture perhaps more useful for the minister.

SURVEYS

At this point, theologians making use of the revised history (and of changing paradigms in scientific explanation plus sociological and philosophical critiques of scientific rationality) are providing the basic textbooks for science-religion studies. As a theological enterprise, this study generally aims toward the fashioning of “theologies of nature” in light of the new sciences. The historical dimension of this project has

tended toward portraying the complexity of the relationship so as to clear away obstacles to dialogue created by any sense of inherent conflict.

Ian G. Barbour's own Gifford Lectures epitomize this theological project. Recently revised and published as *Religion and Science: Historical and Contemporary Issues* (New York: HarperCollins Publishers, 1997), Barbour's book has become something of a standard text in the field. His rich and rather challenging analysis of the relationship now contains a few chapters of historical background. Beginning with a sketch of medieval cosmology, Barbour shows how developments in scientific explanation in succeeding centuries compromised that worldview. The historical contingency of the sciences-theology relation is then used to support his principal aim: to reformulate Christian doctrine in light of current scientific knowledge. Barbour argues for a theology of nature that is true to the tradition, informed by evolutionary science and by Alfred North Whitehead's process metaphysics. While Barbour's conception of "natural theology" seems too tightly confined to a nineteenth-century Victorian version of the design argument, his text, on the whole, can be taken as a worthy test case in the new theology.

With somewhat less investment in process thought, and more indebtedness to Catholic sources, John F. Haught's *Science and Religion: From Conflict to Conversation* (Mahwah, N.J.: Paulist Press, 1995), nevertheless voices a similar interest in moving from conflict to creative engagement. His description of "contact" and "confirmation" emphasizes present-day opportunities to move beyond antagonisms that are historically conditioned and philosophically rooted. His most recent book, *God After Darwin: A Theology of Evolution* (Boulder, Col.: Westview Press, 2000), is a more fully developed exercise in the theology of nature. In it, he acknowledges the problems for an argument from design created by the theory of evolution. In general, Haught, like Barbour, highlights eschatology and hope as Christian themes of central value in the current dialogue. His works contain an historical dimension that could be developed in history courses.

Creating texts to facilitate the framing of a theology of nature is most recently exemplified by Christopher Southgate, et. al., *God, Humanity and the Cosmos: A Textbook in Science and Religion* (Harrisburg, Pa.: Trinity Press International, 1999). The book is the result of a collaboration of several British scholars from different disciplines who themselves embody a characteristic drive for "consonance" between theology and science that motivates individuals in this field. Written explicitly for undergraduates, though certainly useful and challenging for graduate students engaged in theological studies, the book examines a range of fundamental issues at the nexus of science and theology. These include cosmology, evolution, psychology (views of human nature), ecology,

and bioethics (cast in uniquely theological terms as a matter of wisdom). Though focused on the present, the book does contain an historical perspective. It attends first to the obligatory cases of tension (Galileo and Darwin) but also communicates an historical sense throughout, noting that “relations between different sciences and any one religion—even any one branch of any religion—will be different at any give time, and will alter through history” (11). As a whole, the text points to ways historical study can contribute to an essentially theological project.

A similar contribution is suggested in two additional surveys, each written by noted scholars with backgrounds in both the sciences and theology and each raising issues that call for further historical study. John Polkinghorne’s readable and concise survey, *Science and Theology: An Introduction* (Minneapolis: Fortress Press, 1998), points to avenues of historical investigation that include but go beyond the archetypal causes célèbres. His examination of human nature—of reductionist vs. holistic accounts, of understandings of consciousness and of soul and spirit—points, for example, to the relevance of Aquinas and Irenaeus. In a similar but more conscious fashion, Alister D. McGrath’s *Science and Religion: An Introduction* (Oxford: Blackwell Publishers, 1999) conveys an historical dimension throughout his survey of the theological and philosophical issues in the science-religion relation. His concluding chapter offers vignettes of twentieth-century writers, including Teilhard de Chardin, thereby suggesting the value of biographical approaches.

ONE LEGENDARY EPISODE AND ONE CENTRAL ISSUE

Historical accounts of a modern sciences-Christian theology relation typically revolve around episodes that have gained legendary status. The historian of early modern Catholicism, especially, can hardly avoid examining the “Galileo Affair.” The resource material here is overwhelming with classic studies still relevant and new works continually emerging. Particular mention should be made of *Galileo’s Daughter: A Historical Memoir of Science, Faith and Love* by Dava Sobel (New York: Walker & Company, 1999). The book offers an intimate view of the “trials” of Galileo from the perspective of one of his illegitimate daughters, Suor Maria Celeste, who entered the convent at age thirteen and remained a faithful correspondent with her father until her death at age thirty-three.

In addition, a useful compendium has recently appeared called *The Cambridge Companion to Galileo* edited by Peter Machamer (Cambridge: Cambridge University Press, 1998). Like the other works in this Cambridge series, the book brings together established scholars of the subject to create a collection of rather specialized studies of the many dimensions of the Galileo case. Ernan McMullin, for example, offers his

careful examination of the central issue of biblical interpretation. His treatment is nicely complemented by Pietro Redondi's discussion of Galileo's theology and its importance to his physics, noting the relevance of the Church Fathers and especially of Augustine to the mindset of the mathematician.

One additional note on the pivotal topic of biblical interpretation and, in particular, on the persistent analogy of the Book of God's Works to the Book of God's Words can be found in *The Bible, Protestantism and the Rise of Modern Science* (Cambridge: Cambridge University Press, 1998). Peter Harrison advances the interesting thesis (interesting in light of ongoing conflicts between Bible-believing Protestants and evolutionary scientists) that the Protestant way of reading the Bible affected the way people in seventeenth-century England read the book of Nature in a way which encouraged the development of the natural sciences. Harrison reaches back to the Patristic period to trace the transformation of the medieval fourfold sense of Scripture to the modern, more literal and historical reading preferred by the Reformers and argues how this development of biblical exegesis provided a congenial context for scientific explanation. Along the way, Harrison also raises a related and often ignored issue of the demise of the medieval-sacramental worldview.

CONCLUSION

This selective review of an emerging literature in science-religion studies suggests a place for church history that goes beyond a study of the celebrated cases. Recent survey texts, in particular, indicate critical and fruitful topics for historical study with the context of a fairly clear theological enterprise—topics such as changing conceptions of revelation and public images of God. At the same time, the tendency toward intellectual history, the predominant Anglo-American focus and the lacunae of Catholic material suggest areas for further research. In general, the current state of scholarship has moved a powerful story line away from conflict, harmony and apologetics, directing church history toward reflection on the complexity of and possibilities for the interaction of faith and culture.

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