Reflecting on Kevin Sharpe, Taede Smedes, and the Dialogue

with Nathan J. Hallanger, "Science and Serious Theology"; Varadaraja V. Raman, "Changing Landscape in Science-Religion Dialogues"

SCIENCE AND SERIOUS THEOLOGY: TWO PATHS FOR SCIENCE AND RELIGION'S FUTURE?

by Nathan J. Hallanger

Abstract. Although they take different approaches, both Taede A. Smedes and Kevin Sharpe have challenged the theology-and-science enterprise and raised important questions about theological and scientific assumptions behind this work. Smedes argues that theology should be taken more seriously, and Sharpe believes that theology should be more scientific. A proposed middle way involves engaging in the dialogue itself and exploring the questions and methodological implications that arise in the context of problem-focused interactions.

Keywords: divine action; rationality; Kevin Sharpe; Taede A. Smedes; theology and science

The scientific method, particularly in the natural sciences, has proven wildly successful in describing the universe. So successful are the sciences that its method is taken as the paradigmatic example of rational thinking. Can theology—or any of the humanities, for that matter—hope for anything like the descriptive successes of the natural sciences? If science is the dominant model for rational knowledge, and theology strives to be a rational discipline, what is the theologian to do? Should a theologian alter her or his theological method to account for this apparent fact of contemporary Western culture? If so, how should one go about this task?

Nathan J. Hallanger is Special Assistant to the Vice President of Academic Affairs and Dean of the College, Augsburg College, C.B. 136, 2211 Riverside Avenue, Minneapolis, MN 55454; e-mail hallange@augsburg.edu.

Two recent treatments examine such questions and come to strikingly different conclusions. In what follows, I explore these two works and offer critical commentary on their conclusions. One author argues that theology's major shortcoming is its failure to align its methods with the scientific method. The other argues that scholars in religion-and-science need to take theology seriously and not submit theological method to the criteria of the scientific method. In light of their work, I conclude with some reflections on what may lie ahead for future collaborative interactions between religion and science.

WHITHER SCIENCE AND RELIGION? TWO APPROACHES

The question at hand seems to center on whether theology can view itself as a rational enterprise and, if so, how that rationality is similar to or different from scientific rationality. Ian Barbour and others have explored this question and have argued that indeed there are parallels between the rationality one uses in theology and the rationality one uses in the sciences (Barbour 1990, ch. 2). Their methods, these writers argue, are analogous, sharing key features such as theories that attempt to account for data and observations, philosophical assumptions that influence observations, and criteria for choosing between theories (Russell 2008, 23). Note the careful use of the term analogous; one should remain keenly aware of the similarities and differences between method in science and method in theology. For example, even if one accepts the rationality of theology, key questions remain: How can theories be tested in theology, and what count as data? Nevertheless, there do seem to be strong parallels between theological and scientific reasoning, and this remains so regardless of the metaphysics one chooses to develop (Russell 2008, 4-5). Whether the emphasis is on divine transcendence or divine immanence, one cannot avoid developing theological theories and models in a manner analogous to science.

Where does this leave theology and science, and what might it mean for future interaction? Kevin Sharpe and Taede Smedes, each in his own unique way, remind scholars engaging in dialogue between science and religion what is at stake, and, indeed, the stakes are high. In what follows, I attempt to occupy a middle ground between Sharpe's desire to make theology scientific and Smedes's desire to reject scientism and take theology more seriously. Whether such a middle ground exists remains to be seen, but I hope to show that an attempt to locate a position that takes both concerns seriously would be well worth the effort.

There are stark contrasts between Sharpe and Smedes. Smedes writes that "while the logic of scientific discourse is bound to the natural order, the logic of God-talk is not, because God transcends the natural order" (Smedes 2004, 27). This emphasis on God's transcendence is for Sharpe exactly the problem for theology. Instead, Sharpe believes that any attempt

to posit a God distinct from the world, thus "isolating a safe place for God," moves theology further away from the scientific method and thus from contemporary relevance (Sharpe 2006, 213). What are we to make of these two arguments, and what import might they have on future directions for interdisciplinary engagement between science and theology?

Kevin Sharpe's The Science of God (2006). Sharpe wants theology to "hold ideas of God fully responsible to the life people experience and to the world in which they experience it" (p. 41). Theologians

need to face the challenge [of the confrontation of religion by modernity] head on with theological constructions that answer secularity's challenge and that still center on the reality of God. That is, theologians need to do theology fully scientifically without losing the wisdom gathered over the past many millennia of human experience and the moral critique necessary to guide and admonish how people live: a difficult, but not impossible, challenge. (p. 5)

From the start, it is clear that Sharpe is unafraid of facing what for others may be an impossible challenge.

To meet the challenge as Sharpe sees it, theology "needs to follow a scientific method, and think of its language as descriptive and responsible to the world outside the human" (p. 23). Theology therefore "must accept the findings of science in all realms, including geology, biology, and cosmology. If a theology wishes to call itself a science, it must enter into discussions and accept observations that may lead to the undermining of cherished beliefs. Absolute certainty will go" (p. 15). He concludes that "a theology that calls itself a science must accept observations of the world and intersubject experience" (p. 15).

To get at what an empirical theology might look like, Sharpe engages his main interlocutor, philosopher Kai Nielsen. Nielsen, Sharpe tells us, has articulated consistently and carefully "the empiricist challenge to theology" (p. 46). If theology can withstand the critiques leveled by Nielsen, Sharpe believes, it can be considered truly empirical and scientific.

Thus, Sharpe expends a great deal of energy in describing Nielsen's challenge to religious and theological language, along with previous responses to Nielsen. He argues that Nielsen serves as a "guide" to the debates because his "championing the empiricist challenge to theology raises a large number of questions that theology ought to heed if it wishes to develop an empirical method; his prolific publications probably cover every skeptical attack in the debate" (p. 46).

As Sharpe makes clear, Nielsen argues that theological language is not descriptive and thus cannot be examined according to empirical criteria. Even theologians who aim for descriptive theological language "retreat into a nondescriptive fideist cave when hard pressed" (p. 110). According to Nielsen, Christian theism is by definition not empirical, for it offers no conditions by which one might abandon one's faith. To attempt a rational

construction of such faith would "remove its mystery" (p. 110). Consequently, religious and theological language should be abandoned, Nielsen concludes.

Although he finds Nielsen's critiques accurate, Sharpe does not view theology's situation as hopeless. Nielsen has challenged theology to become empirical, something he does not believe is possible. Sharpe, in contrast, believes that theology can indeed be reconstructed using descriptive language and scientific methods. If successful along the lines of empirical reconstruction, theology would not only respond successfully to Nielsen's critique but also regain its voice in a secular society often deaf to fideistic theology.

Sharpe calls his own efforts toward a scientific theology *key-theology*—"key' in the sense of the key in the door opening into a new vista for theology to explore" (p. 148). Sharpe begins by noting that "everything humans perceive is ultimately mysterious and unknowable, but people do have tools for knowing something about every one of them, including God" (p. 35). Yet he notes that even key-theology must begin with an assumption: "the vital importance of God ideas" (p. 205). Beginning with that assumption, key-theology looks at all areas of human knowledge through the "God-lens." It adopts a scientific approach to questions relating to theology, but not scientific in terms of emulating "the details of the technical laboratory method of some sciences." Instead, Sharpe means for theology to adopt "science's general approach to questions: the belief, roughly, that an idea has truth if many people, maybe everyone, can unequivocally experience it. In theology, it means openness to ordinary experience" (p. 129).

One may wonder why empirical and scientific method should dictate how theology operates. The answer, Sharpe argues, "lies in the secular nature of contemporary society and its elevation of the scientific method to the arbiter of truth. As said above, theology must face this directly, accepting (while commenting on) the modern worldview rather than hiding in a religious or linguistic ghetto of the past" (p. 50). In addition, Sharpe argues that science provides "truthful knowledge" (p. 238) about the world and its processes; in other words, sciences helps one understand, in Arthur Peacocke's words, "What's There?" and "What's Going On?" (Peacocke 1993, 29, 44). Theology, then, must not only take account of the results of science but also incorporate science's "general approach to questions" (Sharpe 2006, 129).

Sharpe explains that although "no irrefutable deductive argument will prove theology must adopt the scientific method," there are three justifications for this move (p. 123). First, because it is interested in the truth, theology should be rational and empirical. In the Western world, "science speaks the voice of contemporary truth," and theology should adopt the

scientific method if it is to speak the truth (p. 124). Second, if it is to communicate with society, theology must speak the language of science in order to effect change among individuals and institutions. Traditional religious moralities seem to be losing ground in society, owing in part to theologies that appear detached from other forms of meaningful knowledge. Sharpe goes so far as to suggest that the failure to make God relevant to everyday existence by adopting a scientific method for theology may well lead to the failure of any religion based on such a theology (p. 124). Finally, Sharpe describes the psychological and social needs that require a scientific method for theology. Among them he includes a laundry list of societal problems relating to science and technology, from environmental problems to terrorism to genetic technology. To navigate these difficult waters, society needs the guidance of religious traditions, yet these traditions will have no relevance and meaning if they do not speak the language of scientific truth.

Having adopted a scientific method, key-theology proceeds by inquiring "of the universe . . . to find out about God vis-à-vis humans" because "the universe presents the only face of God people can see or comprehend" (p. 246). Science provides the best means by which one can understand the universe, and the most striking feature of the universe for key theology is human spiritual characteristics. In short, "Key-theology discovers the nature of God from the spiritual nature of human beings and it discovers that with science" (p. 246).

Sharpe writes eloquently on the need for theology to adopt a scientific method. Theology, he argues, shares science's desire for truth, and if it strives to speak to society it must speak with an authority based in the scientific method. In addition, the world faces a host of societal and personal ills for which theology can contribute to potential solutions.

To help make the world a better place for humans and humanity's kin, theology... ought to embrace modernity and guide secularity's latent spirituality. Theology might take a first step in this direction by developing and following a truly scientific method for itself. A theology resulting from this may stand a better chance than current candidates of creating a meaningful and powerful theology to help solve, for example, technology-produced social problems. (p. 125)

One recognizes a hint of irony here—theology's method should align itself more closely with the method of the sciences that have *produced* the technology leading to some of our social problems. Why should theology adopt the method of the sciences when those very sciences have contributed to practices we need to counter or overcome?

Taede Smedes's Chaos, Complexity, and God (2004). Like Sharpe, Smedes is unhappy with some of the widely read efforts in science and religion, particularly as such efforts strive to understand divine action. John Polkinghorne and Peacocke both receive ample space in Smedes's treat-

ment, for each represents a "scientistic impulse" in his theology of divine action. Interestingly, the objects of Smedes's critical comments are individuals who are hybrids—scientist-theologians who began their careers in the sciences and subsequently received theological training: Polkinghorne, Peacocke, and Barbour.

Smedes notes that both Polkinghorne and Peacocke object strongly to being characterized by such "scientistic tendencies" (2004, 209), about which Smedes writes, "I got the impression that both assume that I accuse them of being naturalists, reductionists, plain materialists, or worse" (pp. 207–8). In fact, Smedes does accuse them—and Barbour—of subjecting their theological work to the standards of scientism, which he defines broadly as "a pervasive cultural mode of thinking" that believes "that we must follow science for what is possible and what is impossible in our universe, and between what exists and what does not exist" (p. 14). He goes on to argue that one of scientism's key presuppositions is that nature is a closed causal system, governed only by natural laws.

It may seem absurd to argue that Polkinghorne, Barbour, and Peacocke have ceded their belief in God to the authority of science, particularly when all three have written volumes against such reductionistic understandings of knowledge in relation to science and theology. But by defining scientism as a mode of thinking that influences our understanding of what is possible in the universe, Smedes creates a category broad enough to encompass all three (and many others). The question remains, however, whether science is a reliable tool for uncovering what creation is truly like and whether scientific knowledge offers some insight into one's understanding of God.

Smedes, unlike Sharpe, argues that "it is *not inappropriate* to use personal language about God, or more positively, we are entitled to use personal language when speaking about the relation of God to the world and God's creatures" (p. 8). Although theologians are justified in using personal language when speaking about God's relationship to the world, Smedes argues that when it comes to God's *action*, theologians should not speak as though God's actions can be so understood. Divine action is "incommensurable" with human concepts and language. This seems to me slightly different than placing a greater emphasis on the "is not" aspect of analogy, which is also one of Smedes's points (whereas I would put greater emphasis on the "is" aspect of analogy in this context).

These concerns with the work of Polkinghorne and Peacocke stem from an argument about the distinction between logical possibilities and physical possibilities. Smedes argues that any attempt to understand divine action within the scope of science capitulates to the scientistic ideology that permeates Western society. Scientism, he says, talks only of physical possibilities, whereas theology speaks of logical ones. Collapsing the logical into the physical is an inappropriate theological move: "Since God is creator of

the universe, and as such transcends the natural order, it cannot be excluded as logically possible that God acts in the world without infringing the integrity of the natural order, even though for us such action may be inconceivable" (p. 204). The theological problem of this "reductionism" involving logical and physical possibilities is that it threatens God's status as the one who should be worshipped.

Furthermore, Smedes's emphasis on the religious language's internal logic and questioning the explanatory and rational features of theology threatens to distance theology from any constructive dialogue with the natural sciences, and perhaps for Smedes that is an acceptable outcome. Certainly it would preserve theology's ability to speak about God's action in a way not influenced by science's descriptions of the natural world. But it also would lead theology further down a path toward potential cultural irrelevance, if Sharpe is to be believed. In addition, why be concerned with understanding noninterventionist divine action if theology need not concern itself with the physical possibilities described by the sciences?

Calling it a "category mistake," Smedes also challenges the use of compatibilism/incompatibilism in the divine action discussion. He writes that the "set of physical possibilities is a subset of the broader set of logical possibilities" (p. 184). Therefore, even if one is unable to find a physically possible route for it, God's noninterventionist action remains a logical possibility. Barbour has previously rejected the relevancy of this argument in discussions of divine action (Barbour 2008). One might even view Smedes's move as a recognition of the importance of the question of compatibilism or incompatibilism, for one might view the argument about physical and logical as in some respects similar. Smedes may well fit into the incompatibilist camp—God's actions cannot be harmonized with the workings of the natural world. In addition, Smedes does not address the fact that the realm of the physically possible has been altered radically by the quantum revolution, and he offers only passing dismissal of proposals for divine action that are compatible with quantum physics.

Two aspects to scientism, as Smedes broadly defines it, may not be viewed as problematic for theology. First, a healthy respect for the accomplishments of science in describing the world does not lead necessarily to an overly confident faith in science. Certainly, one can respect the new knowledge that science has uncovered while simultaneously recognizing science's limits. Smedes suggests that such respect is dangerous, for it may lead theologians down a path toward attempts to incorporate scientific methods into theological construction. One might ask, however, if the effort to incorporate other "ways of knowing" the world always has been part of theology's task. Even efforts to restrict theological method to what is appropriate to the object of theology are responses to other disciplines' efforts at describing reality. Second, if one affirms the universe as God's creation, theology should adopt methods that assist it in uncovering new

knowledge about the universe as creation. Far from dangerous, approaching science as a tool for uncovering the truth about creation serves as a key theological move.

Despite concerns about how far theology's engagement with science may take us, Smedes suggests that dialogue with the sciences is important, and he offers as an example possible discussions about the evolutionary origins of religious impulses and behavior. He notes that for atheists such data show that religion is illusory but that this conclusion is unwarranted. Instead, he says that "just as the Big Bang theory resonates with the Christian notion of *creation ex nihilo* (creation from nothing)—without the claim that the Big Bang confirms *creation ex nihilo*, which would be a theological category mistake—so the data for the apparent naturalness of religious behavior resonate with theological notions like Calvin's *sensus divinitatis*" (Smedes 2008, 275). In this respect, Smedes does not appear far from those who approach science using a "theology of nature" in ways that do not suggest theology's ceding ultimate authority to scientific data.

Smedes notes as well that theology needs to apply a hermeneutics of suspicion to its methods. Here, it seems, theology can learn something from the sciences. In some respects, the natural sciences represent an ever-humbling and always-suspicious method of examining the natural world. The constant quest for proper data, appropriate methods, and new knowledge results in continual feedback and criticism, with a clear and in principle commitment to such feedback regardless of its source. Once scientific data enter the community of discourse, any scientist anywhere in the world is able to examine and criticize the method, data, and conclusions. That is truly humbling, even if scientists and theologians themselves occasionally lack humility.

Smedes would have theologians go to greater lengths to take theology seriously. I argue that if theologians are truly to do this, they should engage an aspect of theology that does not figure prominently in Sharpe's or Smedes's works: Christology (see for example Shults 2008). Although this is no easy task, can one speak of taking theology seriously without engaging Christology or, further, the Trinity, even if only as a historically important component of theological construction? Such an exploration would serve to underscore the vital importance of understanding divine action.

A WAY FORWARD

Both Sharpe and Smedes express a certain level of discomfort with the current science-and-religion dialogue. What they see as the status quo, captured in works by Polkinghorne and Peacocke, has reached a dead end. Sharpe believes that theology "has yet to apply a critical voice to some of [its] most fundamental beliefs" (2006, 2). Smedes says that the field is facing a "midlife crisis," with the goals and methods of dialogue called into

question (2008, 236). After a half-century of dialogue and critique, science-and-religion finds itself at a crossroads, and Sharpe and Smedes provide two paths down which one may travel.

Smedes reflects on the future tasks of science-and-religion by noting that "the most basic of questions, which are in dire need of answers but seem never to be asked, are these: Why do we need an interaction between science and religion? What is the use? and for Whom?" (p. 255). Although I disagree with Smedes that there has been a lack of methodological reflection in science-and-religion, even if that were the case it would not be the pressing problem that Smedes and others make it out to be. Instead, desperately required are additional interactions and collaborative efforts between theologians, natural scientists, and social scientists. There are dynamic developments and new knowledge created when theologians and scientists engage one another on problems of mutual interest.

Sharpe believes that an empirical key-theology is the best route for promulgating this type of interaction. Although that may be the case, his method accomplishes integration between science and religion at a cost of the abandonment of history, tradition, and revelation. For some this may be an acceptable route for Christian theology to take, but such an approach would alienate many orthodox believers willing to engage constructively with the sciences if only given the proper vocabulary and tools.

Often the methodological questions arise organically in the course of ongoing work, not as a preamble or necessary condition for the commencement of work. (Besides, no amount of methodological sophistication will persuade unwilling participants to engage one another in dialogue!) I am suggesting not that discussions of method are unnecessary prior to engaging in such work but that, if Smedes is correct that different methods will apply in different social locations, collaborative work on different problems will require different methodologies. Furthermore, such differences may not be clear until shared work commences and is well underway.

Although there is inherent value in engaging in such dialogue, it may prove its worth only in its instrumental value to society at large—by providing new models and frameworks for human and nonhuman flourishing, by fostering new insights into perennial problems, and by stimulating new research, both collaborative and discipline-specific. Nevertheless, the ultimate value of dialogue rests in the potential to enrich *both* disciplines and to do so in terms accepted within each discipline.

This engagement is valuable to theology as it reflects on its own method and the scientific method in two respects. First, theology is a rational discipline, and although it shares some methodological elements with the sciences, ultimately the level of commitment in theology means that it differs in important ways from the sciences. As a result, theology cannot become an *entirely* empirical discipline. But, I argue, neither can science meet the standard of becoming entirely empirical; belief and commitment

play a role in the scientific method even at the basic level of belief in the intelligibility of the universe.

Second, as is widely recognized, there is an interpretive element to all knowledge. That knowledge is hermeneutical does not mean that the hermeneutical circle is vicious. We do have criteria for adjudicating competing theories. Here the sciences can offer theology a model for a community of knowledge whereby knowledge is shared, examined, and explored for its coherence, its fit with data, and (occasionally) its beauty. Theology and science, therefore, should be open about their presuppositions. This is one gift that philosophy of science and theology can offer to the natural sciences, a gift that can improve the public reception of science and may assist the process of scientific discovery. Robert John Russell argues that theology not only can challenge the philosophical presuppositions that undergird scientific theories but also can provide new insights resulting in scientific research programs (Russell 2008).

One way of looking at the relationship between science and theology involves asking the question about what lies at the core of one's faith. Are there theological commitments about which science can provide constructive insights or offer possible constraints? For Smedes, God represents the kind of core commitment about which science cannot provide constructive insights. Sharpe would like to place all faith commitments into dialogue with the natural sciences and to examine such commitments using a scientific/empirical method. Both are viable positions to take when engaging in such dialogue, and it remains to be seen which path will prove more valuable to the various publics with whom we interact. However, although there is much work to do if religion-and-science dialogue in general—and theology-and-science in particular—is to achieve greater awareness among theologians and scientists, the fact that theology-and-science is currently being ignored by many scholars is not adequate evidence for suggesting that all past efforts may lead us to a dead end on the road to dialogue.

Science has given us confidence in our ability to find things out. When we find ourselves facing the unexplainable, we may be unable to marshal any meaningful explanatory resources. This represents an opportunity for theology, I think, in two respects.

First, theology that critically engages the natural sciences can offer insights into both the stunning clarity of scientific knowledge and the sometimes surprising limits to scientific inquiry. Science is far from a value-neutral and objective endeavor, and it is often only as theology engages science in dialogue that this becomes explicit. The loudest voices for science in the public sphere admit to very little of this. They may fear that the public's confidence in science may be weakened or that ideological forces related to Creationism and Intelligent Design may wedge their way into even the slightest opening. Although understandable, these fears are unfounded and may stoke the fires of ideology that some scientists are working hard to

snuff out. Focusing only on external factors, there can be no doubt that political concerns and funding availability play roles in the directions the natural sciences take or fail to take. Even more, individuals engaged in the sciences are people with histories, preunderstandings, and social locations, not unfeeling, purely objective robots. I find it striking that in spite of these external factors, to say nothing of the process of scientific theory construction itself, science works. Scientific observations, data, and theories tell us something meaningful about the planet we inhabit and the universe that birthed us. But one of theology's important roles is to remind us that we should not expect science to tell us everything.

Second, a theology engaged with the sciences can offer greater insight and more coherent responses to such problems than theology that does not engage the sciences. By engaging with the natural sciences, theology offers a more coherent picture of the world and God's relationship to the world. In the process it recognizes that there are limits to what can be known and boundaries beyond which we rely on tools other than merely empirical observation. It can thus help in making meaning out of the seemingly meaningless by showing that there are truly limits to what we can know because we have not created ourselves or the world. Theology reminds us that we rely on something external to the self and the universe for our being. At least as described by those unversed in philosophy, science recognizes no limits in principle to what it can know. If science fails to explain something, these scientistic individuals may be left disappointed, even angry, especially when confronted with instances of natural evil. Why is there no cure for cancer? Why can't we protect ourselves from natural disasters?

Theology engaged with the natural sciences affords us an opportunity to enrich theology while supporting science. One important example is the question of theodicy raised when theology affirms evolution as in some fashion God's way of working, shaping, or developing the world. Evolutionary biology describes a world characterized by a great deal of waste in terms of death and extinction. These appear to be not incidental to the process but part of what drives it forward. If that is the case, theology needs to develop a response to understand why the loving God whom Christians worship would choose or allow the process of evolution to result in pain, suffering, death, and extinction. Behind this lies the assumption that all life, not only human life, matters to God in important respects. Even if one were to argue that only human life matters, one would need to explain why the emergence of human lives is worth the evolutionary cost.

In engaging one another on shared problems, scientists and theologians need not decide between taking theology more seriously and making theology more scientific. Both Smedes and Sharpe are deeply committed to the importance of this work, even if they come to different conclusions about how that work should be undertaken. In the ongoing conversations to discern what future efforts might look like, they have offered two clear options for where theology and science might choose to go. Examining these options affords us an opportunity once again to ask the question why such dialogue matters and where it might lead us. These are important questions for theology and deserve ongoing dialogue and debate.

REFERENCES

- Barbour, Ian G. 1990. Religion in an Age of Science. The Gifford Lectures, 1989–1991, Volume 1. San Francisco: HarperSanFrancisco.
- 2008. "Taking Science Seriously without Scientism: A Response to Taede Smedes." Zygon: Journal of Religion and Science 43:259–69.
- Peacocke, Arthur R. 1993. Theology for a Scientific Age: Being and Becoming—Natural, Divine, and Human. Enlarged ed. Minneapolis: Fortress.
- Russell, Robert John. 2008. Cosmology from Alpha to Omega: The Creative Mutual Interaction of Theology and Science. Minneapolis: Fortress.
- Sharpe, Kevin. 2006. The Science of God: Truth in the Age of Science. Lanham, Md.: Rowman and Littlefield.
- Shults, LeRon. 2008. Christology and Science. Grand Rapids, Mich.: Wm. B. Eerdmans.
- Smedes, Taede A. 2004. Chaos, Complexity, and God: Divine Action and Scientism. Studies in Philosophical Theology 26. Leuven, Belgium: Peeters.
- 2008. "Beyond Barbour or Back to the Basics? The Future of Science and Religion and the Quest for Unity." Zygon: Journal of Religion and Science 43:235–58.