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THE FRUITS OF PLURALISM: A VISION FOR THE NEXT SEVEN YEARS IN RELIGION/SCIENCE

by Philip Clayton

Abstract. This article offers a vision for work at the intersection of science and religion over the coming seven years. Because predictions are inherently risky and are more often than not false, the text first offers an assessment of the current state of the science-religion discussion and a quick survey of the last 50 years of work in this field. The implications of the six features of this vision for the future of the field are then presented in some detail. Rather than bemoaning the current diversity of approaches and conclusions as a negative result, I endorse it as a healthy sign—if acknowledged honestly and managed well.

Keywords: Ian Barbour; comparative religious studies; history of science and religion; intelligent design; New Atheism; Alvin Plantinga; religious pluralism; Robert John Russell; "Science and the Spiritual Quest"; theology

I suppose it's a bit unusual for an academic article in a learned journal such as *Zygon* that it would have been born in the hallways of the American Academy of Religion. (Or perhaps more articles are born in the hallways of the AAR than one might suspect.) If you attended religion—science sessions at the 2013 meeting in Atlanta, and if you were prone to eavesdropping in the hallways outside the sessions, you might have overheard attendees at that august convention complaining that the religion-and-science debate today:

- "contains far too little theology..."
- "contains far too much theology..."

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- "doesn't acknowledge the Lordship of Jesus and undercuts the affirmation of Christian truths..."
- "illicitly imports Western materialism into the thought-world of the Qu'ran and Islamic thought..."
- "doesn't acknowledge that many important scientific ideas were already present in the Vedas..."
- "has come to represent a new master narrative. These hegemonic claims are damaging to the pursuit of good science..."
- "needs to give a way to good empirical work . . . "
- "is too preoccupied with the ideas and patterns of the previous generation. The field needs to start over if it's to be relevant to the needs of today . . . "
- "... is stuck."

One gets the sense that the state of the field today is perhaps not fully satisfying to all participants.

Whatever one might say about these various comments, here I wish to take issue primarily with the final one. The pace of change is so rapid—not only within the various sciences, but also with the nature of religiosity in the United States and around the world—that statements of impossibility, that "nothing will change," are highly implausible. It is far more likely that the coming seven years will see the emergence of major new paradigms, topics, and conclusions than it is that the field will remain "stuck" in *any* aspect of its past.

First, the assumptions. I take it as obvious that both science and religion will be around for the foreseeable future and equally as obvious that, as long as both exist, discussions will take place between them. My own informal surveys suggest that each person is most likely to project a future for this field based on his or her own convictions. Those convinced of the "conflict" model project future conflict, whereas defenders of the "independence" model project growing independence. Those who are enthusiastic about current integrations of religion and science project increasing success for such programs, while lovers of dialogue see more productive dialogues on the horizon.

Given these patterns of projecting the present into the future, it would be foolhardy for me to make a series of concrete predictions in these pages. Two trends, however, are so pronounced that it would be irresponsible to leave them unnamed. First, the empirical study of religion and its effects will continue to expand. Seven years ago, we had much less data on religion and biological evolution, the cognitive science of religion, religious experience and neuroscience, and a host of similar topics. Over the coming seven years, the growth of this data set will be exponential.

Second, over the coming seven years, it will become more and more difficult to define either science or religion in sheer opposition to the other. Total warfare and battles to the death are not inevitable. Thus I challenge Sam Harris's claim, "The truth... is that the conflict between religion and science is unavoidable. The success of science often comes at the expense of religious dogma; the maintenance of religious dogma always comes at the expense of science" (Harris 2006, 63). It's just not true, as he suggests, that "it is ... in the very nature of faith to serve as an impediment to further inquiry" (2005, 45f.).

Of course, you can win headlines and sell books if you take the most extreme viewpoint possible: "Faith can be very, very dangerous, and deliberately to implant it into the vulnerable mind of an innocent child is a grievous wrong" (Dawkins 2006, 308) or, even more venom-laden:

Religion has caused innumerable people not just to conduct themselves no better than others, but to award themselves permission to behave in ways that would make a brothel-keeper or an ethnic cleanser raise an eyebrow.... *Religion poisons everything.* (Hitchens 2007, 6, 13)

It's also true that few believers who publish on the topic of science and religion can write vivid, memorable prose, which is an allegation you would not direct toward Richard Dawkins:

The God of the Old Testament is arguably the most unpleasant character in all fiction: jealous and proud of it; a petty, unjust, unforgiving control-freak; a vindictive, bloodthirsty ethnic cleanser; a misogynistic, homophobic, racist, infanticidal, genocidal, filicidal, pestilential, megalomaniacal, sadomasochistic, capriciously malevolent bully. (Dawkins 2006, 31)

Unfortunately, extreme claims from the one side merely serve to draw forth the venom from the other, as in Alvin Plantinga's response to the Dawkins quote just given: "Dawkins seems to have chosen God as his sworn enemy. (Let's hope for Dawkins' sake God doesn't return the compliment.)" (Plantinga 2007).

Whether one reads academic publications or online bloggers and their respondents, it's hard to deny that public disputes concerning science and religion of late have not exactly met the standards of "discourse aimed at mutual understanding" defended by Habermas. In fact, they sometimes make Washington, DC look gentle by comparison. Still, we can hope that the missiles launched from one enemy line toward the other—"I am not attacking any particular version of God or gods. I am attacking God, all gods, anything and everything supernatural, wherever and whenever they have been or will be invented" (Dawkins 2006, 36)—will serve primarily to decimate the two flanks, allowing the interesting work to be done by those who are still around when the dust settles.

Leaving partisan politics behind is as important for this topic as it is in Washington if, as I think, the field has an immensely important role to play in the coming seven years. Given the rise of religious fundamentalism, the "trade school" mentality in higher education, the concomitant decline of the humanities, and the growing effects of global climate disruption, there is no dearth of potential contributions the field can make. What ties these various concerns together is the potential for cross-fertilization between the knowledge resources of the various sciences and the moral and ethical resources of the various religious traditions. Here, I suggest, lies the heart of the vision of what the field might contribute over the coming seven years if it lives up to its full potential.

WHAT LED US TO WHERE WE ARE TODAY?

"Progress, far from consisting in change, depends on retentiveness.... When experience is not retained..., infancy is perpetual. Those who cannot remember the past are condemned to repeat it."

- George Santayana

Even if the field is *not* stuck, it is fair to say that the advocates of science and the advocates of religion have reached rather an impasse today—an impasse that remains visible even through the various efforts to paper it over. (Sadly, much of the papering effort looks like attempts by one side or the other to declare a premature victory.)

The first thing to do when confronted with an impasse is to attempt to learn how one ended up where one is. We can discern five stages over the last 50 years or so, each one roughly identifiable with a decade:

- 1960s: The collapse of positivism and the rediscovery of the questions. The 1950s were still dominated by positivist thinkers in the philosophy of science such as Hans Reichenbach and Carl Hempel. But by the mid-1960s, a series of challenges to the traditional model (Stephen Toulmin, N.R. Hanson, W.V.O. Quine), popularized in Thomas Kuhn's (1962) Structure of Scientific Revolutions, had begun to change the paradigm. Changes in the understanding of science opened the door to a re-engagement of religion and science, and a series of books in this genre began to appear.
- 1970s: The search for a method. Ian Barbour and other scholars began to outline the parameters for the disciplined study of relations between the sciences and religion. It's not that early works in this genre—Ian Barbour's Myths Models and Paradigms, Thomas F. Torrance's Theological Science, or Wolfhart Pannenberg's Theology and the Philosophy of Science, and soon thereafter the early works of Arthur Peacocke and John Polkinghorne—were all in agreement.

But each of these authors shared the drive to establish a disciplined mode of scholarship in this field.

- Late 1980s and early 1990s: why (and how) it's rational. By this point the early methodological proposals had given rise to a series of works on methodology, epistemology, and rationality. Nancey Murphy and I offered competing models for the emerging field; historians of religion and science provided the first detailed expositions of the history of the debate; and several scholars advanced "critical realism" as a framework for the field as a whole.
- 1990s: Templeton funding and the rapid expansion of the field. A decade of ambitious and well-funded projects followed. The Center for Theology and the Natural Sciences hosted almost \$30 million of projects, including the CTNS/Vatican Observatory series of conferences on divine action, Science and the Spiritual Quest, and the Science and Religion Course Program. Other centers sprang up with similarly ambitious projects. The engagement between the scientists and theologians began to appear publicly within major science departments; courses were established at hundreds of universities; dozens of conferences took place each year; and the discussions began to spread beyond Christian theology and beyond the English-speaking nations.
- By September 11, 2001: Entrenchment. The debate between Intelligent Design and the New Atheists had commenced by the end of the 1990s, but it exploded into public attention around the turn of the century. Scientists began to feel that the very possibility of science was under attack from the religious right, and an increasing number of religious people became convinced that science was out to destroy their faith. Multiple factors played a role in the changing attitudes of scientists: having to go to court to teach evolution in the schools (as in the much-publicized Dover, Pennsylvania trial); the increasingly inflammatory prose of the New Atheists; and the tendency to equate religion with religious fundamentalism of the kind that motivated the 9/11 bombings. With the death of Sir John Templeton in 2008 and a two-term conservative Republican president (2000–2008), the period of sustained support for bold exercises in bridging across the science-religion divide ended. It is probably most accurate to construe the last ten years primarily in terms of warring factions.

WHERE HAS THIS ALL LEFT US?

Historians will be able to nuance this brief historical reconstruction and to augment the data. In the meantime, what interpretations of the field are

suggested by this brief sketch, rough as it is? The early work on methods—say in the twenty years after Ian Barbour's (1974) *Myths Models and Paradigms*—gave rise in the 1990s to a heated debate over what should count as the most adequate methodology for this emerging field. Multiple options were put forward in those debates, including what should be the standards for this field, the central topics, the criteria for quality research, and the qualifications of its leading contributors. Myriad suggestions were advanced, defended, and debated. Instead of producing a unified field, however, as most of the participants seemed to expect at the time, *each of the major suggestions in turn became the core premise for one of a broad range of subfields*.

Instead of producing a single discipline, then, the 1990s produced a vast diversification of approaches to the study of possible relations between science and religion. Multiple forms of empirical study were born at this time, such as the evolutionary psychology of religion, the cognitive science of religion, the neuroscience of religion, and sophisticated studies of the history of science—religion relations. But theological interpretations of the scientific method and of myriad specific scientific theories were also advanced. In 1998 the fact that the Berkeley physics department would sponsor a conference of 23 Jewish, Christian, and Muslim physicists to talk about science and faith was shocking enough that it made the cover of *Newsweek* (July 7, 1998) and garnered over a million media impressions. By 2001, the existence of such discussions was commonplace enough that more substantial results were needed to attract public attention.

Of course, in scholarship pluralism is a good thing. Instead of settling into a comfortable orthodoxy, as happens in many fields in the humanities, a vast range of work began to appear at the intersection of religion and science. But pluralism in turn gives rise to its own disturbing question: in what way, if any, does this cacophony of papers, books, and conferences constitute an identifiable discipline? How, if at all, does a huge collection of opinions and conference results aggregate to constitute a single field?

The urgency of the question is even greater in the case of the sciencereligion discussion than in other fields because it includes such a surprising collection of competing responses. These include:

- the call to find at least one interpretation of each major scientific theory that is consistent with core Christian belief commitments;
- the call to find interpretations of scientific theories that are consistent with *each* religious tradition;
- the call to find "scientific" arguments to disprove one religion or all religions, as in the "new" atheism;

- the call to emphasize above all else the *functions* of religious belief and practice, whether positive or negative, placing far less emphasis on theological *beliefs*;
- the call to study and, to the greatest extent possible, to explain religious phenomena in purely scientific and empirical terms (proponents and opponents fight bitterly about whether this work is motivated by the desire to destroy religious beliefs or merely to understand them; probably both are true);
- the call to engage in careful descriptive studies of comparative religious thought and practice, as in the religious studies model;
- the call to provide scientifically based functional accounts of religion;
- the call to find "traction" between religion and science. Should science "test" religious claims? Should theological proposals be "brought before the bar of science"—in some sense or another? Are there any shared standards for excellence in such discussions?
- at the other end of the spectrum, the attempt to immunize one's own position from any possible criticisms from "the other side."

What's the net result of all these developments? Scholars who speak of science and religion today have inherited a stack of unresolved battles. Six come immediately to mind:

- descriptive vs. normative approaches;
- science-based vs. theology-based;
- serving the growth of science vs. serving theological interests;
- single religion vs. comparative religions;
- theology and metaphysics (to do or not to do, that is the question);
- and, to my mind, one of the more tragic failures: liberal Christian vs. evangelical Christian.

Surely each reader will have different levels of concern about, or interest in, each of these battles. I acknowledge particular concern about the last. During the last third of the twentieth century, most of the investment in science–religion research came in Christian-majority countries; hence Christianity was better represented among the participants than any other religious tradition. Much turned on whether the Christian scholars involved would be able to separate their role in forming a new discipline, a new type of discourse, from their commitments to particular theological beliefs or their location along a particular stretch of the theological continuum.

They didn't. The last 15 years have seen a virtual bifurcation of the field into evangelical research programs and "liberal" research programs. (One can't help but notice that the same period has seen a major shift in Christian-oriented portion of Templeton Foundation funding from the latter sort of research program to the former sort.) Whereas once the breakdown of communication happened when scientists wouldn't talk with theologians (or vice versa), today the breakdowns are occurring because the two halves of Christianity are failing to find common ground.

EVOLVING FAITH: A VISION FOR THE NEXT PHASE

It doesn't take a particularly astute reader to recognize that the evolution of the field over the last 50 years hasn't manifested perfect rationality and cooperation. The developments in these years have been, as Nietzsche aphorized in a different context, "human, all too human." One could easily focus on the darker sides:

- Leaders in the field have attained scant agreement on any set of standards (historical, theological, comparative, even empirical).
- What might have become a unified discipline became instead a battleground of competing interests. The actual course of history looks less like Karl Popper's perfect falsifications or Imre Lakatos's progressive research programs, and more Feyerabend's Against Method or the "sociology of knowledge" advanced by Karl Mannheim, Peter Berger, and the Edinburgh School (Barry Barnes and David Bloor).
- One repeatedly observes academic jealousies, infighting between one-time collaborators, competition rather than cooperation—all darkened by the increasingly abysmal job market for PhDs in this field.
- Many now pursue their separate projects with (more or less) incommensurable goals and arguments.

But I prefer to focus on the brighter side. The "science and religion discussion" as such has not converged on a single answer. But what interesting conversation ever does? The history that I have so briefly sketched here has led to a greatly increased scientific interest in the phenomena of religion, as well as to a greatly increased sense on the part of more and more religious people that they need to pay attention to science (even if sometimes the attention is primarily negative). Both empirical work and scientific work on these questions has increased exponentially over the years. That is certainly one measure of success.

Let me try to formulate this vision in the form of a thesis:

Those interested in the topics of science and religion today are far more likely to "own" the faith commitments that they bring to the discussion, to comprehend

the broader dimensions of the issues, and to hold themselves to higher standards of professional knowledge. They are also more likely to pull back from attempts to prove the truth of their own tradition over all others and from claims to quasi-scientific status for their own religious beliefs. In short, the groundwork has now been laid for a creative mutual interaction, even if we have not yet quite left behind the "two camps" mentality of the last dozen years.

Each of the six components of this thesis deserves at least a brief comment:

(1) In earlier phases of the history, it was far more common for religious participants to offer (what they believed was) a scientific justification for the particular religious beliefs of their tradition. Science-based apologetics of this sort involved not only a more rationalistic view of the justifications for religious believing, but also the rather strong claim that one's own religious tradition could be rationally justified over one's competitors.

The much-publicized tensions between science and religion over the last decade have severely curtailed approaches of this sort. It's now far more common for religious believers to clearly identify the faith commitments that they bring to the discussion (Clayton and Knapp 2011). Believers who enter the conversation in this fashion are more likely to acknowledge the equal right of believers from other traditions to engage in discussions with science from the standpoint of their own tradition's beliefs. When starting assumptions are made explicit, others participants know where the ensuing discussion can, and cannot, go. Consider the kind of discussion you know you can have with persons who begin with one of the following assumptions:

- Infallibility of the Bible
- Evolution has to be false
- Evolution is unguided
- Holy Qu'ran is unsurpassable
- God is Trinity
- Must preserve reincarnation of the soul
- Ultimate reality is ineffable
- (2) Participants in discussions today are more likely to command a broader perspective on the issues than was true in the past. Several decades of publications and teaching experience in the field means that scholars entering the field have access to a more synoptic perspective on historical and theological topics. They can draw on a rather extensive set of specialized research: Judaism and bioethics,

- Buddhism and conscious mind, Native traditions and human enhancement, and so on. Of course, when discussions turn to "what it all means," differences arise. Still, participants on both sides of the debates today have access to a far wider range of studies and results than was true in the past.
- (3) As a result, it is possible now to hold scholarly participants in these discussions to higher standards of professional knowledge. Individual traditions are learning to cohabitate with the sciences, even if their means of cohabitating are markedly different. Scholars can be expected to know efforts at constructive engagement that have been successful in the past, and efforts that have not yielded fruit. Deeper and better informed modes of comparative study have also become possible. We are seeing new kinds of research into the diverse ways that religious thinkers and traditions appropriate and integrate—or (as it may be) ignore and attack—scientific theories and results.
- (4) Of course, knowing the plurality of approaches doesn't preclude attempts by some traditions to explain The Whole Thing exclusively in their own terms: karma or salvation history, naturalism or supernaturalism, Qu'ranic science or Vedic science, evolutionary religion or "the Truth once given." But comparative knowledge does tend to raise questions and demand answers in ways that mono-cultural and mono-religious approaches could not do. Participants today are more likely to pull back from science-based attempts to prove the truth of their own tradition over all others. Comparative studies across traditions can demonstrate in some detail why apologetic ("my tradition over yours") arguments generally work only for those who accept the assumptions of the speaker's own tradition.
- (5) In the earlier phases of the religion—science dialogue, the freedom to "begin with my own location" was sometimes accompanied by the conviction that "my religion answers scientific questions as well as science does"—which often meant that the individual's religion was *functioning as* science. What was particularly painful about the Intelligent Design (ID) movement, for example, is that it arose just as the scholarly community was succeeding in formulating the different "logics" of religious and scientific language.

In more recent years, scholarship in the field has helped religion scholars avoid conferring on their own religious beliefs a quasi-scientific status. The support of evangelical scholars for the BioLogos project, which presupposes both Darwinian evolution and historic Christian beliefs, represents a major step forward from ID. One finds similar progress in other traditions. Books like Nidhal Guessoum's *Islam's Quantum Question* (2011) set new

standards for fruitful interactions between Islam and contemporary science; the enthusiastic support for scientific research by the Dalai Lama has had positive effects across much of the Buddhist world; and Hindu appeals to neuroscientific research are now linked to increasingly sophisticated understandings of the contrast between the scientific components and the traditional religious interests.

Further, religious accounts of what science "really" is appear less credible in a multireligious and increasingly secular context. Religious scholars today are more likely to freely admit the interests that they bring to a specific scientific question or topic, rather than equating their religious interests with science as such. Grappling with the vast variety of religious and secular perspectives, speakers today are less likely to universalize their own tradition and more likely to grant its status as one set of interests and convictions alongside others.

(6) In short, the groundwork has now been laid for a creative mutual interaction between science and religion. "Creative mutual interaction" is a gutsy term that Bob Russell coined some years ago and has made central to the research program that he and others are pursuing (Russell 2001, 2006, 2008, 2012). Many of us, including the present author, may resist the full symmetry that Russell intends with his particular understanding of "creative mutual interaction." But when, instead of full symmetry, the term is used to express a bidirectional gain, with each side profiting from the very different insights of the other, it does indeed express the standard that the field should, and can, achieve over the coming seven years.

ON NOT PUTTING ALL THE PIECES TOGETHER

Both senior scholars and graduate students just entering into the field bemoan the lack of a fixed definition for what the field should be. In these pages, I have challenged that negative judgment. In retrospect, we never should have expected consensus on methodology and results. The vastness of our topic and the fundamental differences between sciences and religions make settledness, not to mention consensus, impossible.

It is a privilege to think and write about these two great spheres of human civilization. But the agonistic nature of their relationship rules out a single "theory of everything," a God's eye point of view that is able to synthesize all the pieces into a single harmonious system. Scholars with the need for such unifying resolutions will find themselves more at home in traditional metaphysics or traditional Christian systematic theology. Field workers slaving away at our central topics, by contrast, need to place a premium on the skills that are necessary for achieving local and often transitory

comprehension, while on the mountains around them the conflagrations continue to burn.

Over the course of the history of this field, both sides have been guilty of attempting premature closure. Theologians were confident that they already resided on the lofty mountaintop, which the scientists in their various disciplines were still struggling to ascend. The messianism of scientists in these same years has been no less pronounced. Repeatedly they have proclaimed to the reading public that either all knowledge falls within their domain (Wilson 1998), or at the very least that they alone are fated to be on the winning side of history. Countless are the subtle techniques by which the parties on both sides seek to establish their claims to superiority and to downgrade the contributions of the other side.

In the end, my optimism stems from the younger scholars who are now completing their education, submitting their first presentations and publications, and beginning to make their mark on the field. Those who identify with a particular religion, or who are advocates of the value (and values) of spiritual practices, are far more likely than the previous generation to know, and practice, the discipline of empirical research and studies that are sensitive to data. Those who come primarily from the science side are less likely to be satisfied with the sweeping claims of hegemony or with the slash-and-burn approaches of the previous generation. These scholars are already establishing closer collaborations across the metaphorical aisle than their teachers were (by and large) able to achieve.

Above all else, it is the habit of pluralistic thinking that provides the deepest grounds for optimism. I hypothesize that scholars who, both personally and professionally, have grown up in a religiously pluralistic context, which clearly includes the pluralism of religious and nonreligious or secular, will react differently to the sharp differences that define our field. Is it that far-fetched to think that those who walk comfortably with religious pluralism will find therein the skill sets and the orientation to live and work more comfortably with the great contrasts that exist between the worlds of science and the worlds of religious belief?

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