Peter Harrison's Territories of Science and Religion*: A Symposium*

with Peter C. Kjærgaard, "Why We Should Care about Evolution and Natural History"; Kaspar von Greyerz, "Early Modern Protestant Virtuosos and Scientists: Some Comments"; Nathan J. Ristuccia, "Peter Harrison, Ludwig Wittgenstein, and the Problem of Pre-Modern Religion"; Michael Fuller, "Into Terra Incognita: Charting beyond Peter Harrison's The Territories of Science and Religion*"; and Peter Harrison, "The Modern Invention of 'Science-and-Religion': What Follows?"*

INTO TERRA INCOGNITA: CHARTING BEYOND PETER HARRISON'S *THE TERRITORIES OF SCIENCE AND RELIGION*

by Michael Fuller

Abstract. Peter Harrison's *The Territories of Science and Religion* throws down a serious challenge to advocates of dialogue as the primary means of engagement between science and religion. This article accepts the validity of this challenge and looks at four possible responses to it. The first—a return to the past—is rejected. The remaining three—exploring new epistemic frameworks for the encounter of science and religion, broadening out the engagement beyond the context of the physical sciences and Western culture, and looking at ways in which scientific and theological practitioners may collaborate on practical problems—are all offered as potential ways in which science and religion may engage with one another, in ways which move beyond Harrison's critique.

Keywords: contextualization; dialogue; ecumenism; epistemology; Peter Harrison; rationality

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Peter Harrison's *The Territories of Science and Religion* (2015), based on his Gifford Lectures delivered at the University of Edinburgh in 2011, already has about it something of the feel of a contemporary classic. Historians will doubtless wish to debate the details of his analysis of the ways in which, historically, the things to which we now apply the labels "science" and "religion" have changed through time, from the medieval concepts of *scientia* and *religio* through the paradigm changes of the Reformation

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and beyond. Nevertheless, Harrison's central thesis sounds a stark note of warning for scholars of science and religion, because Harrison believes that these concepts in their modern form have a division between them built in from the ground up. As he puts it,

> advocates of positive relations between science and religion, who argue that science supports religious belief, also act to reinforce the modern boundaries of "science" and "religion." . . . Their urging of a consonance between science and religion has the potential to reinforce the very conditions that make conflict possible. *Advocates of constructive dialogue are thus unknowingly complicit in the perpetuation of conflict*. (Harrison 2015, 197–98, my emphasis)

Ever since Ian Barbour advanced his celebrated "fourfold paradigm" concerning the possible ways in which science and religion might interrelate (Barbour 1998, 77ff; 2000), science and religion scholars who have rejected the "conflict" model have tended instead to adopt that of dialogue, as the very titles of their works confirm (cf. Polkinghorne 1995; Richardson and Wildman 1996; McGrath 1998). Indeed, it has been said that dialogue has become "the default stance for those working in the science-and-religion field who wish to affirm that the engagement is a truly two-way one" (Re Manning 2013, xlv). If Harrison is right—if attempts over recent decades to build bridges between science and religion by dialogical means are ultimately doomed to failure, given that the modern concepts of "science" and "religion" are effectively circumscribed by ways of thinking which see them in oppositional terms—then it would appear that the modern project of the dialogue of science and religion is indeed doomed.

This article assumes the validity of Harrison's thesis that "advocates of constructive dialogue are . . . complicit in the perpetuation of conflict" (although the possibility must be acknowledged that more nuanced readings of the historical material may arise to challenge, or indeed to overturn, that thesis in due course). If this is so, what ways forward might exist for the field of the study of science and religion? To extend the metaphor used by Harrison: what may lie in the *terra incognita* beyond the territory currently occupied by the modern construction of "science and religion"? This article puts forward four suggestions: a re-appropriation of the original understandings of "science" and "religion"; the construction of new epistemic spaces which might free "science" and "religion" from their historical constraints; an extension of the dialogue as it has been pursued in recent decades into religious and sociopolitical contexts where Harrison's critique may have less force; and a movement of the dialogue from purely theoretical to mutually identified practical concerns.

Recovering the Past: "Science" and "Religion" as Virtues

When faced with a present-day crisis, an immediate reaction can be to turn to the past as a time of relative stability, from which lessons might be

learned for the present context. In considering this option, we are fortunate in having Harrison's own analysis of that past to use as a starting point.

Harrison notes (2015, 11) that "For Aquinas ... both *religio* and *scientia* were, in the first place, personal attributes." Moreover, "When the term [religion] was used in the premodern West, it did not refer to discrete sets of beliefs and practices, but rather to something more like 'inner piety' ... *religio* was understood on the Aristotelian model of the virtues as the ideal middle point between two extremes—in this case, irreligion and superstition" (2015, 7–8). In the same way, *scientia* was understood as an "intellectual virtue" (2015, 12), and it was "not only a personal quality, but also one that had a significant moral component" (2015, 13). There is, clearly, a significant difference between these premodern, "interiorized" concepts of *religio* and *scientia* and their modern descendants. In essence, a religion is now most commonly thought of as a system of beliefs and practices, whereas a science might be considered to be a method of investigating some aspect of the physical world together with an accumulation of data and theories relating to that aspect of the physical world which has been gleaned through this method. The premium placed by Enlightenment thinking on objectivity has stripped out the significance of personal engagement from science—although some scientists may still feel a deep personal investment in their discipline, of course (and thinkers such as Michael Polanyi have emphasized the ongoing personal participation of the scientific practitioner in the generation of scientific knowledge through experimental methods (cf. Polanyi 1958)). Might it be possible to recover these past understandings of *religio* and *scientia*, in which immediate parallels between science and religion presented themselves? Might we return to an understanding of these aspects of human endeavor which sees them in harmonious, rather than conflicting, terms? To adapt Harrison's cartographical analogy: can we, as it were, journey back up the road to reach the point at which a parting of the ways took place, and move beyond it to a place where practitioners of "science" and "religion" moved without difficulty along the same path?

A glimpse of this vision may perhaps be seen in the establishment by Arthur Peacocke of the Society of Ordained Scientists, envisaged as a group "held together by prayer and sacrament ... to represent the Church in science and science in the Church" (Peacocke 1996, 17). However, as a strategy to be pursued more widely by scientific and religious practitioners, such a vision is unlikely ever to be realized. On the scientific side, it is surely the case that too much is invested institutionally in the notion of science as a generator of objective knowledge (and in scientists as generators of grant money for the pursuit of their research) for an understanding of science as a means of inculcating virtue in the scientific practitioner to gain much traction. Put crudely, an application for funding which explains that the research to be carried out may have future benefits in terms of the treatment

of an organic disease is rather more likely to receive funding than a grant application explaining that the research to be carried out will make the researchers better people. On the religious side, much religious practice continues to have as an aim the inculcation of virtue in the individual believer; however, the modern construction of "religions" may mean that devotees feel too invested in the doctrinal content of their particular faith tradition to revert readily to seeing their own religion as simply a means to that end (although see Barrett 2011, 134 ff. for an account of the extent to which "theological correctness" is, or is not, carried over into an individual's personal faith in practice).

Whilst a recognition of the commonalities shared between *scientia* and *religio* in medieval times, not least that of the "interior dimension" (Harrison 2015, 14) possessed by both, might appear attractive as a means of facilitating their ongoing relationship in the future, it appears to the present author unlikely that many present-day scientists or followers of religious traditions will be inspired or motivated to pursue such a path.

Changing the Rules of Engagement: Toward a Rational Pluralism

A key aspect of Harrison's critique of the present state of play in discussions between religion and science is that those discussions take place within a particular "epistemic space" in which "supposedly neutral rational considerations trump all others" (Harrison 2015, 190). Although this space was initially constructed by those who wished to offer rational defenses of religious belief (Harrison argues), it was gradually and inevitably ceded to science in the course of the nineteenth century, since it is founded on precisely those standards of reasoning on which science is based. "Religion," on the other hand, is properly understood as a broad concept extending beyond natural theology which finds its home in this epistemic space, and not all aspects of religion are susceptible to discussion in these terms (an idea which is beautifully caught in Blaise Pascal's famous aphorism, that "the heart has its reasons, of which reason knows nothing" (Pascal 1966, 154)). It is therefore not possible to offer an account of religion within this epistemic space which does justice to this broader understanding of it. Since the continued conduct of dialogue between "science" and "religion" within this space may thus be seen clearly to favor the former at the expense of the latter, then an obvious question presents itself: might some alternative, "fairer" epistemic space be possible? In particular, might some measure of neutrality be restored to the dialogue by acknowledging the existence of plural rationalities, rather than assuming the superiority of one?

Wenzel van Huyssteen has pursued the quest for precisely such a "safe epistemological space" in which the dialogue of science and religion might

be conducted (cf. van Huyssteen 1998, 2). He notes the challenges of postmodern critiques of science and of theology, which reject "foundationalist" bases for scientific or theological knowledge: "The postfoundationalist challenge always to critique our own foundationalist assumptions certainly means that there are no universal standards of rationality against which we can measure other beliefs or competing research traditions" (van Huyssteen 1999, 267). The sociologist Christian Smith makes an important complementary point in discussing the various narratives which people use in order to structure and impart meaning to the worlds which they inhabit: "it is difficult rationally to adjudicate between divergent stories . . . what *is* evidence is itself largely made significant, if not constituted for us, by our narratives" (Smith 2003, 87, emphasis in original). Not only do different perspectives employ different rationalities: those rationalities are self-reinforcing, since they themselves determine what counts as evidence in their favor. It is hardly surprising that a view of science which has an assumption of its rational superiority over religion built into it as a part of its story will insist on definitions of terms such as "rationality" and "evidence" which reinforce that superiority.

Van Huyssteen helpfully points toward a way out of this impasse. He suggests that an "evolutionary epistemology" which takes account of the ways in which human rationality originates in our evolved biological makeup might direct us toward a "safe space" for dialogical engagement. Such an approach leads to "a style of enquiry [which] can provide a way of thinking about rationality that respects authentic pluralism—it does not force us all to agree or to ever share the same assumptions, but it finds ways we can talk with one another and criticize our traditions while standing in them" (van Huyssteen 1999, 268). This in turn leads van Huyssteen to develop the notion of "transversality" as a means of achieving effective dialogue between systems which embrace different sets of meanings and different reasoning strategies:

> What is at stake in this notion of a transversal rationality is to discover, or reveal, the shared resources of human rationality precisely in our very pluralist, diverse assemblages of beliefs or practices, and then to locate the claims of reason in the transversal passage or overlaps of rationality between groups, discourses, or reasoning strategies. (van Huyssteen 1999, 247–78)

In other words, transversality is "a heuristic device that opens up new ways for crossing boundaries between disciplines, and for identifying those interdisciplinary spaces where the relevance of scientific knowledge can be translated into the domain of Christian theology, and vice versa" (van Huyssteen 2006, xv). Such spaces have been helpfully glossed by Pat Bennett as "*shared rational spaces* located at specific points of intersection between disciplines—for example common interests or research foci. As such, I believe that they can appropriately be conceived as liminal spaces

with all the openness of outcome possibilities which this implies" (Bennett 2015, 195, emphasis in original).

It must be acknowledged that there are difficulties in pursuing an interdisciplinary vision such as that of van Huyssteen, perhaps the greatest of which will be an inertia on the part of individuals and institutions wedded to research within the paradigm of a particular discipline, with the rationality appropriate to that discipline embedded within it. The shackles of modernism are not readily thrown off. Even if momentum for such a change in the terms of engagement between science and religion could be generated within the academy, the extent to which such a change could be established in wider public discourse is questionable, given the complexity of the arguments involved and the extent to which such discourse has for so long been predicated on the "conflict" model. Setting to one side any lingering questions about the practicability of such an approach, however, we may see here the potential for another way of addressing Harrison's warning that "Advocates of constructive dialogue are . . . complicit in the perpetuation of conflict." If that complicity comes from the fact that dialogical engagement is taking place within a supposedly neutral epistemic space which, in fact, significantly favors one dialogical partner over the other, then an alternative space or spaces must be found for that engagement, and van Huyssteen's work valuably points toward ways in which such spaces might be perceived, or constructed.

Extending the Boundaries: "Science" and "Religion" as More than "Physical Science" and "Christian Theology"

It is undeniable that there has been a "tendency, until recently dominant in Western scholarship, to equate 'religion and science' with 'Christianity and science'" (Clayton 2008, 1). Indeed, given the focus by many science and religion pioneers on Christian *theology* and on the *physical* sciences, it might be argued that the territory under surveillance by scholars in this field has been narrower still. This situation is now rapidly changing, and it is greatly to be hoped that, as it does so, the engagement of science and religion will come to embrace different sciences, different religions, different geographical locations, and different cultural contexts, all of which may then contribute their distinctive voices to a heterogeneous mix. As the tight grip of Western post-Enlightenment thinking on the dialogue of science and theology starts to diminish, it may be that Harrison's critique of the plight into which it has led the dialogue of science and religion will become less acute, as fields of interaction open up which do not share the same historical and geographical burdens which have been carried by that dialogue thus far.

The interaction of religious ideas from within the Christian tradition with a rich variety of different scientific disciplines, from astrophysics and

mathematics to psychology and evolutionary biology, is well established and ongoing, as a perusal of standard science and religion textbooks soon reveals (cf. Clayton and Simpson 2008; Southgate 2011; Stump and Padgett 2012). Moreover, as new scientific disciplines and subdisciplines emerge, it is to be expected that these interactions will grow and proliferate. For example, the present author has pointed to a number of ways in which the emergence of a new science in the interrogation of extremely large data sets, "data science" as it is known, offers rich new possibilities for interaction and cross-fertilization (Fuller 2015, 2016). It may be that, at least in the short term, dialogues with new sciences conducted within the current "framing" of science and religion will continue to be subject to the same constraints, and hence the same critiques, as those which Harrison has identified; but as our understanding of what can fall within the purview of science widens, so too the possibility of engagement which escapes such constraints may emerge.

Looking beyond the Christian tradition, it is again noteworthy that textbooks in science and religion (e.g., Clayton and Simpson 2008; Southgate 2011) are starting to contain essays exploring science and religion from other religious perspectives. These, together with Brooke and Numbers's *Science and Religion around the World* (2011), are signposting important future directions for science and religion research. For further examples of this broadening of the science and religion dialogue across different religious traditions, one need look no further than the pages of this journal, in which articles by Nidhal Guessoum (2015), by Anindita Niyogi Balslev (2015), and by Seung Chul Kim (2015) have recently addressed the relationships of science with Islam and with Indian and Japanese religious traditions and concepts, respectively. In taking the dialogue of science and religion into these new contexts, which may be more or less free from the historical baggage of Western Christianity (depending on the influence on them of Western colonialism), it is clear that new insights and possibilities for that dialogue may emerge. For example, Balslev notes that

> in order to appreciate science-religion samvada (communication/conversation) in the Indian context, it is crucial to know the distinction between what is described in the Upanisads as "higher knowledge" (*para-vidya*) and "lower knowledge" (*apara-vidya*) . . . both science and religion—as conventionally understood—belong to the category of "lower forms of knowledge." . . . It is tempting to observe here that the Indian cultural heritage being what it is, the debate of "science versus religion" is bound to be considered pretty much a useless endeavor if reasoning, logic, observation, thought-experiment, and so on are taken to be exclusively part of scientific methodology, whereas religion is seen as based on mere dogmas, belief, or blind faith that cannot be questioned. (Balslev 2015, 882–83)

Many Western proponents of the dialogue of science and religion would doubtless similarly balk at seeing "science" and "religion" characterized in this manner; nevertheless, this is how they have often come to be

perceived in the West. Balslev makes it clear that in other contexts, such a characterization simply does not fit.

In the same way that recent editions of *Zygon* have addressed the study of science and religion in different religious contexts, so they have also looked at the ways in which scholarship in science and religion may be affected by the particular local culture in which it is carried out, with articles reviewing the development of the study of science and religion in (*inter alia*) Germany, South Africa, and Latin America (see Evers 2015, Conradie and du Toit 2015, and Silva 2015, respectively). In these different contexts, issues such as the partitioning and reintegration of Germany, the appreciation of indigenous knowledge systems in post-apartheid South Africa, and the difficulties presented by isolation from other scholars can all be introduced to add richness to the science and religion discourse. The nuanced historical approach to science and religion exemplified by Harrison's work is being echoed by nuanced sociopolitical approaches looking at the development of this interdisciplinary field in different geopolitical contexts. This granular approach is clearly more faithful to the realities of what "science" and "religion" are than earlier, more broad-brush approaches possibly could be. Its taking account of the historical and geopolitical factors that have shaped our understandings of science and religion in different contexts may ameliorate to a significant extent the force of Harrison's thesis, that "advocates of constructive dialogue are . . . complicit in the perpetuation of conflict." Taken together with the broadening of that dialogue to encompass a variety of sciences and a variety of religions, it is to be hoped that the force of Harrison's critique may be significantly deflected.

Making It Real: Science and Religion in Practice

A very different, but potentially far more wide-reaching, way forward for science and religion is suggested by Harrison's placing of the divergence between them in a space that originated with the Reformation and the consequent divisions within Western Christianity. Here Harrison is building on his earlier work, which noted the changes in the ways in which texts were read: at the time of the Protestant Reformation, a priority came to be given to the literal sense of texts, as opposed to symbolic or allegorical readings (Harrison 1998, 107 ff.). Might the ways in which Churches which parted company at the time of the Reformation (and, indeed, at other points in history) have sought to re-address their relationships offer useful lessons for science and religion?

The last century or so has seen a great deal of interest in ecumenism within Christianity, two significant events in the establishment of the modern ecumenical movement being the Edinburgh Missionary Conference of 1910 (cf. Stanley 2009) and the establishment of the World Council of Churches in 1948 (cf. World Council of Churches 2005, xi). A great

deal of ecumenical energy has been spent in discussion of those theological issues which led to the separation of the churches in the first place, leading to the production of agreed statements of various kinds between different denominations (for examples of these statements, see Meyer and Vischer 1984 and Gros, Meyer, and Rusch 2000). These might largely be seen as text-based ways of addressing problems that have their origins in text-based debates.

However, it has increasingly been recognized that a major driver in bringing together those of different denominations has been their shared involvement in practical projects. This is exemplified by the framework set up by the World Council of Churches to guide its activities following its 1998 assembly in Harare. The priorities set out in that framework address such questions as: 'How do we serve human need? . . . How do we promote peace, human rights and justice round the world? . . . How do we . . . respond to the economic, social and cultural challenges of globalization?' (World Council of Churches 2005, 3). The emphasis in these priorities is on taking joint action on issues of which all can recognize the importance, irrespective of denominational allegiance. Doctrinal differences are, perhaps, seen as secondary issues; churches are genuinely brought together through their mutual recognition of, and action with regard to, pressing issues for humankind.

In his discussions of the medieval concepts of *religio* and *scientia*, alluded to above, Harrison suggests that a Thomist view might be that "science is an intellectual habit; religion, like the other virtues, is a moral habit" (Harrison 2015, 16). When all is said and done, "science" and "religion" are not bloodless, abstract concepts: they are participatory activities, requiring the personal, body-and-soul commitment of human beings. Might it be the case that, as has been found in the ecumenical engagement of churches, the most effective way forward for those engaged in science and religion is not through their patient engagement in discussion and dialogue around theoretical matters, but rather through their shared participation in practical projects, of which both acknowledge the value and the importance?

Some examples may serve to illustrate how such an approach might be developed. A recent paper by Gillian Straine explores the ways in which science and pastoral theology might intersect in ministering to those affected by cancer (Straine, in press). Work by Rita Brock on post-traumatic stress disorder (PTSD) and moral injury in military combat veterans similarly draws together insights from neuroscience and from religious traditions in exploring suitable therapies for those afflicted with these conditions (Brock and Lettini 2014: Brock 2016). In a broader context, Fraser Watts has suggested that theological and psychological insights can both be of great value in exploring human emotions such as empathy, guilt, and shame: he suggests that such explorations may lead to new appreciations of some traditional religious doctrines, for example in the field of soteriology

(Watts 2016)—and, one might assume, they might also be of significant therapeutic benefit for people experiencing negative affects stemming from those emotions. In all these cases, the possibility is raised that insights from scientific practitioners, clinicians, pastors, and theologians might come together in ministering to people in need. Priority is given to addressing the need: more theoretical issues, such as the methodological or epistemological congruity of different approaches to that need, are set to one side.

Here it is possible to see the outlines of a new kind of engagement of science and religion: exploring the resources offered by each in engaging with issues of profound human significance. In the face of practical issues which affect all people, such as issues around suffering, it may be that science and religion can find common ground, fruitfully uniting their insights to serve the common good, in a way which is less likely to emerge from the purely rational engagement of the two which has characterized their dialogue thus far. In addition to issues around medical and psychological work, issues of major importance such as the environmental crisis and global economic (mal)practices might also be significant fields in which the shared insights of scientific and religious practitioners could yield fruitful results. Such co-operative work might then in due course lead to a fresh approach to the discussion of "science" and "religion" at a more theoretical level, with new insights and new energies being given to debates which can currently appear to be in danger of becoming stale—in the same way that practical inter-church collaborations may generate fresh impetus for more formal kinds of ecumenical engagement between church hierarchies.

Conclusion

Peter Harrison's *The Territories of Science and Religion* is not just a fascinating historical analysis of how science and religion, and the relationship between the two, have come to be seen as they are today. It throws down a major challenge to those who see dialogue as the primary means of building bridges between these two forms of human understanding and endeavor, because it exposes the biases which are built into the very foundations of such dialogue. The interaction between science and religion is of such significance, however, that suitable responses to Harrison's challenge must be found for it to be enabled to continue in a fruitful way. This article has outlined four possible responses.

The first—an attempt to return to the past, and to understandings of "science" and "religion" that are more congruent than the way they are generally comprehended today—is felt to be unrealistic. The remaining three all offer considerably more potential. Recognizing the problems built into the dialogue as it is currently undertaken, on account of the epistemic space in which it is located and re-framing it within broader epistemic

parameters (such as those offered by van Huyssteen's model of transverse rationality), would seem to be a way of escaping the trap identified by Harrison (although it is likely that this approach will find favor more in the academy than in public discourse). Similarly, recognizing that the dialogue of science and religion ought properly to involve a range of sciences and a range of religions enables us to see that the encounter of science and religion need not be confined to the spaces in which Western sociopolitical concerns have hitherto constrained it; and this expansion of the engagement of science and religion should remove some of the force of Harrison's critique. Finally, it is important to recognize that science and religion alike are not simply theoretical fields of discourse, but that both ought ultimately to share the same goal, which is human flourishing. In the mutual identification and pursuit of concrete targets which may be pursued with that end in mind, it is to be hoped that science and religion may find a common purpose which the increasingly sterile practice of setting them in opposition to one another would appear to deny them. Progress toward such targets may then lead naturally to a more amicable conversation than can possibly be generated by a dialogue which is constrained by a Western post-Enlightenment framework, given Harrison's identification of this framework as deeply problematic.

Whether the dialogue between science and religion is epistemically reframed, expanded to involve sciences and religions seen from global rather than Western perspectives, or diverted into projects involving both dialogical partners in practical action, this author anticipates that that dialogue has a rich future, and that it will survive the serious challenges set before it by the critique of Harrison's *The Territories of Science and Religion*. Nevertheless, the stimulus to creative thought provided by that critique could be exactly what is needed to move the dialogue of science and religion beyond the impasse which it appears presently to have reached.

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