

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?"

THE MODERN INVENTION OF "SCIENCE-AND-RELIGION": WHAT FOLLOWS?

by Peter Harrison

Abstract. I am grateful to the four reviewers of *The Territories of Science and Religion* for their careful and insightful readings of the book, and their kind words about it. They all got the central arguments pretty much right, and thus any critical comments are not the result of fundamental misunderstandings. While there are some common themes in the assessments, each reviewer, happily, has offered a distinct perspective on the book. For this reason I will deal with their comments in turn, but with a focus throughout on a generally expressed concern about the broader implications of the book's historical analysis, and what positive or concrete proposals might follow from it.

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OBJECTIVITY AND THE OBJECT "RELIGION"

Peter Kjærgaard has provided a thoughtful and generally positive account of the book, but has also set out a number of challenges. Rather than rehearse the significant points of agreement, let me address three of his main concerns.

First, Kjærgaard notes that I have restricted myself to what in his estimation is a relatively "safe" historical perspective, and one that avoids

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direct intervention into contemporary debates about science and religion. He wonders whether this is the best strategy to adopt. One good reason for my adopting this stance, which he acknowledges, has to do with maintaining a degree of distance and disinterestedness from the subject matter. An explanatory story of the kind I have tried to tell will only be credible if it seeks to be genuinely objective—this all the more so because the history of science has been particularly prone to distortion and partiality, with Whiggish histories providing unhelpful and misleading narratives about the triumphal march of progress. The myth of a perennial conflict between science and religion is a paradigm instance of the way in which history of science can be hijacked for ideological purposes. So my concern here, as is true for most of the recent generation of historians of science and religion, is to avoid replacing one ideologically motivated myth with another.

It is also important to stress that the role of the historian is different from that of someone charged, as is Kjærgaard in his role of director of a significant national museum of natural history, with scientific practice, science advocacy, and promotion of the public understanding of science. I am not seeking to solve some putative ongoing conflict between science and religion, or specific contemporary manifestations of it, but rather to understand how it has become possible to think in terms of conflict (and indeed in terms of dialogue and harmony). I also suspect that I am less distressed than he about the prevalence of religiously motivated evolution-sceptics. In the larger scheme of things these scientific heretics strike me as relatively harmless. By way of comparison, few of us are exercised by the fact that most people have not the vaguest familiarity with quantum mechanics and would most likely find it difficult to accept. (Admittedly, we are not faced with vocal anti-quantum mechanics movements either.) Far more worrying is skepticism about climate change, which has significant implications for public policy. The latter context also provides a helpful analogy for the importance of disciplinary distance. The work of a climate scientist not explicitly engaged in environmental advocacy is likely to provide the basis for a stronger and more plausible argument than the work of one who has such involvement. Somewhat paradoxically, then, when attached to knowledge claims, the qualities of disinterestedness and objectivity make possible more powerful ideological deployments of the relevant knowledge.

I should add that I am in complete sympathy with the arguments put by Steven Shapin, and endorsed by Kjærgaard, about the problems of hyperprofessionalism and overspecialization in the history of science and elsewhere. It is partly for these reasons that this book was not actually a “safe” book for a historian to write. It flaunts the conventions of disciplinary specialization; it has a large chronological range and deals with a considerable variety of subject matters; and while it might not be strictly interdisciplinary, it takes in the history of science, religion, philosophy,

theology, and more. This makes it vulnerable within a highly specialized profession although, admittedly, responses to date by my colleagues have been largely positive. On the same note, the book is also intended to be accessible to those outside the history discipline and responses to date suggest that I have had some success here. So my hope was that its broad scope and accessibility will allow it to be understood and utilized by a larger group than had it been more narrowly focused or more explicitly partial and polemical.

Moving to a second area of disagreement, Kjærgaard has significant reservations about my claim that “the only legitimate explanation of religion is the kind that historians offer—that is, a history of its appearance as a category.” This does appear to be a strong claim, but I am not convinced by Kjærgaard’s objections to it, which seem to rest on a subtle equivocation between the concept “religion”—a historically contingent artifact—and the various empirical phenomena that are now arbitrarily grouped together under that concept. A central argument of the book is that our modern conception “religion” is not a natural kind, but an idea that emerges for the first time in the modern West. I take it that Kjærgaard accepts this basic line. If so, it necessarily follows that there can be no scientific or social scientific account of religion in this sense, because religion thus understood cannot be an object of scientific investigation. It is true, of course, that we can study the various empirical phenomena that we currently lump together and label “religion” (albeit problematically) with whatever tools we have at our disposal. But these endeavors will not constitute the study of religion, but the study of a group of phenomena that have been arbitrarily aggregated through the contingent processes of history described in the book. The jade analogy to which Kjærgaard alludes is relevant here. The point is not that we can’t give naturalistic explanations for the formation of jadeite and nephrite. We can, but that these are *different* explanations of two *different* objects, which are popularly but mistakenly thought to be the same thing—jade. It would be a basic error to think that these were explanations of a single phenomenon simply because an erroneous folk-category conflates the two things (Harrison 2015, 4–6, cf. 83–4, 116). On my analysis attempting to provide an evolutionary explanation for religion is a little like attempting to provide an evolutionary explanation for capitalism, or orchestral symphonies, or English literature. This is not to deny that evolutionary theory, at some remote distance, might be vaguely relevant. Just that it is unlikely to be deeply informative. And even on the assumption that there is a legitimate object of study—religion—surely to say, as does Kjærgaard (and many others), that religion is an evolutionary by-product, is really just to say that evolutionary mechanisms are not directly relevant. Along with evolutionary accounts of religion, much social scientific study of religion is characterized by numerous uncritical statements of the kind “religion is” No, religion isn’t.

Finally, there is something to Kjærgaard's closing remarks about the persistence of "natural history" into the present, and the need for me to rethink my suggestion of its eclipse by a more scientific "biology." The ngram that Kjaergaard provided was rather striking, and adds an interesting new dimension to my own word frequency distribution that looks at the relative frequency of "natural history" and "biology" (Harrison 2015, 166). It might be argued that the institutional identifier "natural history museum" is just a hold over from a past golden age of public scientific institutions, and that scientific activities that now take place there actually concern biology and not natural history in the older sense. But I am persuaded by his suggestion that citizen science projects and public participation in educational programs actually signal an important survival of natural history that needs to be taken seriously.

PHYSICO-THEOLOGY AND DISENCHANTMENT

Kaspar von Greyerz's essay can serve as a useful stand-alone account of aspects of the development of physico-theology in early modern Europe and has considerable value for that alone. I learned a lot from it. In relation to my work, much of its attention, it must be said, is focused on arguments found in earlier books (Harrison 1998, 2007), although modified versions of these arguments reappear in chapter three of *The Territories of Science and Religion* and have been integrated into a larger diachronic narrative. While Greyerz and I are in general agreement about the need to do away with mythical ideas about unremitting conflict between science and religion in the past, there are some areas of apparent disagreement, beginning with some of my earlier claims about connections between Protestantism and disenchantment. I am happy to dispense with "disenchantment" (with some qualifications), and note that this term is not used anywhere in *Territories*. There is too much evidence of the persistence of belief in contemporary miracles, prodigies, witches and astrology in the seventeenth century (see Greyerz 1996; Clark 1997; Walsham 2008; but cf. Eire 2016) for us to claim a direct line between a Protestant this-worldly orientation and a dramatic contraction of belief in supernatural or preternatural events in the sixteenth and seventeenth centuries. Indeed if we compare early modern populations with our own contemporaries it is striking how persistent some version of enchantment remains. A Gallup poll conducted just ten years ago established that 25% of Americans, Canadians, and Britons believe in astrology, while one in five Americans (21%) say they believe in witches, compared with 13% for both Canada and Great Britain.¹ Do we now still live in an enchanted world, then? My point is that from the perspective of what we might loosely call "a scientific worldview" we do not, and that the origins of this scientific worldview lie in the seventeenth century. In other words, *something* has happened between now and then,

whether we want to call this disenchantment or not and irrespective of the persistence of popular beliefs in the paranormal.

If not disenchantment, then what? One major development, stressed throughout the book, is the concerted attempt to banish Aristotelian teleology by key figures in the development of early modern science. The explanatory functions of Aristotle's intrinsic qualities, powers, and virtues are replaced by externally imposed laws of nature, understood as God's immediate casual control of nature and its mutations. This is nothing less than a radical *supernaturalization* of nature, but has the fateful consequence of flattening all causation to a single level. This establishes the conditions for a nineteenth-century (earlier in France) redescription of laws as purely natural—a redescription that was completely at odds with the intentions of the natural philosophers of the seventeenth century. “Secularization,” for all its problems, may be a better expression for this than “disenchantment,” in this sense at least.

A second development is that physico-theology represents a quite different way of reading meaning into the natural world than that implied by medieval allegorical reading of scripture. This “demise of allegory” described in detail in Harrison (1998) is consistent both with typological and moralizing readings of scripture and nature, and also with the symbols and allegories used in alchemy. The latter do not require the kind of ontological commitments assumed by a thoroughgoing allegorical approach to scripture and nature. Accordingly, the visible things of the world become bearers of a different kind of theological message—one to do primarily with the wisdom of the laws that God has instantiated and with his design of structures of living things. This is not inconsistent with paying attention to putative parallels between natural processes of transformation—insect metamorphosis and transmutation of metals, for example. But, overall, the world loses its capacity to communicate “thick” theological meanings in a robust way. This is the thrust of Pascal's famous remark about “the eternal silence” of the vast universe, of John Donne's “all coherence gone” and, rather later, John Keats's lament of the unweaving of the rainbow. “Disenchantment” does seem a more apt expression here, since it is more suggestive of the incipient alienation that ensues from a now silent universe.

Again, though, this goes hand in hand with the demise of Aristotelian teleology, for outside of revelation God is now known through neither his semiotic structuring of the cosmos, nor the powers that he has implanted in things that direct them to their natural ends, but rather more indirectly through the (arbitrary) laws that he has imposed on the physical universe and the manner in which he has engineered living things to act *as if* they were motivated by interior purposes and goals. Is “the literalist mentality initiated by the Protestant reformers, and sponsored by their successors” *the* most significant factor in the rise of modern science (Harrison 1998, 8)? Along with Greyerz, I would now hesitate to make so strong a claim.

Nevertheless, I remain committed to its central importance, and add that renewed emphasis on the literal meaning of the Genesis narratives is crucial for Bacon's appeal to the motif of dominion over nature, and to the way in which the fallen condition of the human race can be appealed to as a justification for a new experimental natural philosophy (Harrison 1999, 2007).

Finally, a comment on the counter-instances represented by the cases of Gisbert Voetius and Johann Jakob Scheuchzer in relation to my general claim that Protestantism and a "literalist mentality" were particularly conducive to modern science. My argument does not entail that in every specific situation we will encounter agreement between adherents of reformed religion and proponents of "new science." This will necessarily be true since there were considerable disagreements within both constituencies. Descartes and Newton thus propose radically different Copernican cosmologies, yet both are representative of "new science." So I am happy to concede that in specific cases, scientific innovations might be opposed by appeals to the literal sense of scripture (much as they are to this day). But these instances do not vitiate the general trend. In relation to this it is fair to say that Copernicanism was more welcome in Protestant territories than in Catholic, and significant that *De revolutionibus* remained on the Index of Prohibited Books until 1758.

The hostility of Voetius to Descartes, moreover, underscores the broader argument of *Territories* that there is an intimate connection between the moral and physical implications of the demise of Aristotelian teleology. Voetius was discerning enough to realize that if Descartes's rejection of Aristotelian final causes in nature was followed through to its logical conclusion it would also undermine traditional understandings of moral virtue, since these relied upon a teleological understanding of human ends (Harrison 2015, 91–92). This controversy thus serves as a good example of how an unravelling of a specific doctrine in one sphere—be it natural philosophy, theology, or moral philosophy—might have profound implications for doctrines in another. Our modern disciplinary specializations can sometimes make it difficult for us to see important historical connections that were visible to the contemporary actors.

A WITTGENSTEINIAN BOOK?

Nathan Ristuccia offers a clear and (what seems to me) sympathetic account of the chief arguments of *Territories*. He sets out a few minor areas of disagreement, but also provides some additional evidence for some of my general claims about medieval religion, relating to the meanings of *christianizare* and *catechismus*, for which I am grateful. Much of his subsequent commentary focuses on the suggestion that "this is a Wittgensteinian book," and he reconstructs my general thesis in terms of what he sees as

its implicit Wittgensteinian commitments. While he expresses doubt that I would agree with this general characterization of the book, in fact I think it is a revealing way to conceptualize the project, albeit with some qualifications. I also think reading it this way provides a way of responding to some of Ristuccia's reservations about the book's conclusion.

There are a number of senses in which the book might be said to be Wittgensteinian. The first is to do with the general goals of philosophical activity. As Ristuccia points out, for Wittgenstein philosophy ought to be a therapeutic activity directed at untying logical knots in our language (cf. Smith 2015). Philosophical quandaries are thus not so much solved as dissolved, as linguistic analysis leads us to see that their problematic nature arises out of the language in which they are framed. In relation to the project of *Territories*, then, the thesis is that once we have a sense of how our modern words "science" and "religion" take on their present meanings, we understand that the "problem" of their relationship arises out of the way in which these categories evolved over time, and have come to include particular activities and exclude others. If we were to add a normative claim to this analysis, it might be that the categories end up distorting what it is that they purport to represent, particularly in the case of "religion." This is why "religious" subjects may resist the idea that they are adherents of "a religion." History makes visible the process through which this distortion has taken place, and thus shows the problem to lie at the conceptual level, rather than at the level of the phenomena that the concepts seek to categorize. In the book, it is history (or perhaps more properly genealogy) that performs the work of seeing how knots came to be tied in the first place.

This way of proceeding can certainly be seen as Wittgensteinian, but in the sphere of history at least it also has a number of non-Wittgensteinian precedents that are worth pointing out. In the theology of religions, for example, it has been claimed that the problem of religious pluralism—that the world religions each entail mutually exclusive truth claims—is a problem that arises out of the Western category "religion," which artificially generates the problem by constructing religions in propositional terms (Smith 1978; Harrison 1990). This was my starting point for the *Territories* project. Historians of science, moreover, have long been wary of the anachronistic application of present categories such as "science" and "scientist" to the distant past, and my tracing of the changing shape of such categories as "science," "natural history," "natural philosophy," and so on, is indebted to this disciplinary sensitivity to the danger that "Whig" history presents (Cunningham and Williams 1993; Harrison et al. 2013). Finally, I note that my history of the categories "science" and "religion" bears some similarity to the "genealogical" approach adopted by Nietzsche and Foucault. (I say this with some hesitation, because this needs more nuancing than can be provided here.) So the method is Wittgensteinian,

but not *just* Wittgensteinian since it draws upon common insights about history and its uses from a variety of different fields.

Related to this is the method of linguistic analysis, which explores how the meaning of words is related to the broader language game that they inhabit. The meaning of a word is its use, is the common Wittgensteinian formulation. It is by adopting this approach that we come to understand how, for example, past cultures have used the term “religion” in ways that are radically discontinuous with our own. Examining the different historical contexts within which the term is deployed helps us see that what we may have thought of as a universal feature of human culture turns out to be, in the larger historical scheme of things, a quite idiosyncratic way of categorizing certain human activities. But it is not just meaning that is context-dependent in this way. Argument, justification, and agreement do not take place on some neutral sphere of universal rationality—itsself an Enlightenment invention—but all take place within relatively circumscribed language games which arise out of particular ways of life. Agreement, Wittgenstein insists, does not occur at the level of definitions or opinions “but rather in form of life” ([1953]1963, 88e). Again though, we should note that others have had similar insights, at least in relation to the way in which context is crucial to meaning and justification—Emile Durkheim and practitioners of the sociology of knowledge, Thomas Kuhn with his paradigms, Hilary Putnam’s internal realism, and Quentin Skinner’s contextualized intellectual history, to name a few.

In insisting that the forms of language are the forms of life, Wittgenstein provides us with a formulation that is particularly apt not just for understanding philosophical activity, but also the nature of religious commitment. Again Ristuccia has identified something here that is crucial. Wittgenstein’s views about philosophy as a way of life have been helpfully applied to history of philosophy by Pierre Hadot, and to a lesser extent by Remi Brague and Michel Foucault. Hadot, who first introduced Wittgenstein to French readers in the 1950s, seized upon Wittgenstein’s idea of *Lebensformen* (forms of life) to argue that ancient philosophy was not directed primarily to logic, argument, or the formulation of doctrines, but was a form of spiritual exercises (Hadot 1995, 2002, 2004). As readers of *Territories* will know, this revisionist understanding of the nature of the philosophical enterprise sheds important light on patristic understandings of Christianity as “true philosophy” in this particular sense. Wittgenstein himself argues that “belief” is about trust and a way of life: “It strikes me that a religious belief could only be something like a passionate commitment to a system of reference [*Bezugssystem*]. Hence, although it is a *belief*, it is really a way of living [*Art des Lebens*], or a way of assessing life” (1980, 64e). And this is consistent with the account given in the book of how belief was understood in pre-modern Christianity. That said, my version of events is perhaps less a Wittgensteinian construction of history than

a laying bare of historical precedents within the Christian tradition that subsequently come to inform Wittgenstein's philosophy. The influence of Kierkegaard is a significant consideration here (Wittgenstein 1980, 53e; Schönbaumsfeld 2007), as is Wittgenstein's own observation that "I cannot help seeing every problem from a religious point of view" (Wittgenstein 1984, 94). So this is not just a reconstruction of history through the lens of Wittgenstein's philosophy, but rather an affirmation of Wittgenstein's way of understanding belief and justification, and a demonstration of its congruity with a longstanding and often overlooked tradition in the West.

Ristuccia expresses some mild disappointment with the conclusion of the book, wondering how scholarship might move on from here. I will address this issue more directly in my discussion of Michael Fuller's comments, but at this point wonder if the reasons for this disappointment are already partly accounted for in Ristuccia's own analysis of the Wittgensteinian thrust of the book. As Ristuccia is well aware, Wittgenstein's therapeutic approach is about dissolving problems: he speaks in this context of "throwing away the ladder" or "showing the fly the way out of the fly-bottle." Ristuccia's disappointment seems to stem from the fact that the book offers only a diagnosis, and no cure. But there is a sense in which the diagnosis *is* the cure. One of the chief aims of the book was to show that the "science-religion nexus" is primarily an artifact of our linguistic habits, which we can now see as the end result of a particular historical trajectory. My hope is that the genealogy of the concepts will be sufficient for us to see old problems in a new light. Wittgenstein himself put it like this:

Once the new way of thinking has been established, the old problems vanish; indeed they become hard to recapture. For they go with our way of expressing ourselves and, if we clothe ourselves in a new form of expression, the old problems are discarded along with the old garment. (1980, 48e)

My prescription, then, is not so much to provide a new research agenda for the "science-and-religion" field than to provide a new *story* about science and religion. This is because the argumentation that attends science-religion discussions, whether in support of conflict or congruence is, in my view, largely epiphenomenal. What really determines attitudes is not argument as such, but an underlying commitment to a particular narrative. Contemporary confusions about science and religion spring from ingrained attitudes that are informed by long-standing historical myths. *Territories*, then, has been partly about seeking to provide an alternative narrative. What the book tries to do is offer a different way of seeing the issues: "let's try looking at it *this* way." In a way it is looking to produce a kind of conversion, which brings me to the remarks of Michael Fuller who, like Ristuccia, is concerned with how we move forward after the diagnosis offered by *Territories*.

FUTURE PROSPECTS FOR THE FIELD OF SCIENCE-AND-RELIGION

Michael Fuller's comments are particularly welcome for two reasons. First, he has clearly grasped what has not been obvious to all readers—that the book not only conclusively demonstrates the paucity of “the conflict myth,” but at the same time seeks to question at least some positive projects that seek to bring science and religion together. Second, he has come forward with some thoughtful proposals for what all of this might mean for the science and religion community, many members of which are dedicated precisely to the kind of bridge-building that *Territories* seems to express reservations about. Some of these proposals show genuine promise and offer good reasons for optimism about the future of the field. I will begin with some brief comments on the first point, and deal with each of Fuller's four proposals in turn.

It is important to stress at the outset that I value the efforts of many individuals in the science–religion community to bring about constructive dialogue. My own interest in the field was originally kindled by bridge-building efforts of this kind and I have no wish to see them disappear. The continuing importance of dialogue arises out of the simple reality that most people presently frame science–religion issues in terms of propositions and ways of knowing. Moreover, the most common contexts in which these issues arise are pedagogical or pastoral. In such situations it is important to begin the conversation by addressing questions and concerns in the form in which they are framed. Asserting at the outset that the frame is the problem, or the question misconceived, strikes me as the wrong way to go about things. So I do not think that dialogue is “doomed to failure” at this level. Here I would say, in the Australian idiom, that it is a matter of “horses for courses,” and that we need to adopt different strategies for different purposes. This same principle is relevant to Peter Kjærgaard's concerns about a more pragmatic engagement with contemporary science–religion issues.

That said, the basic goal of *Territories of Science and Religion* was neither pedagogical nor pastoral in this sense. Primarily it sought to set out a history of the two categories. Certainly, it was informed by normative considerations, and I have my own ideas about its further implications, but as I have said before, I am happy for people to draw their own conclusions about these and have tried to refrain from being too prescriptive. All of which said, I do think that there is room for a different kind of conversation about science and religion, one not premised on the assumption that it is the privileged status of science that makes the conversation necessary in the first place, and one that takes as its point of departure a confidence in the methods and subject matter of traditional humanities disciplines such as history and philosophy.

The first proposal that Fuller canvases is a return to a past in which *scientia* and *religio* were understood as virtues. This he dismisses, observing that it is unlikely “that many present-day scientists or followers of religious traditions will be inspired or motivated to pursue such a path.” I agree that institutional constraints on the current practices of science make it virtually impossible that we might revisit such a past, but part of the rhetorical intent of my historical treatment was to show a past in which the priority of personal virtue outweighed utilitarian considerations. We choose what we value, and history shows that the prioritizing of practical and material outcomes came at the cost of an emphasis on interior virtue. As for the virtue *religio* and its replacement by a propositional religion, a recapturing of that past seems well within our grasp and, as I have emphasized in the book, this has remained a persistent concern for many within the Christian tradition (Harrison 2015, 115–16). A recapturing of religion in that old sense thus remains very much a live option. The book does not set out an explicit advocacy of such a position, since a normative claim of this kind lies outside the bounds of historical analysis. But it does try to show what such a position looks like, and shows how central it was to the tradition.

I also think that it is possible to explore common passions that drive scientific enquiry, and common virtues that might be associated with the respective practices. At least some physico-theological enquiries of the early modern period were conceptualized not just as exercises in logical induction from the facts of nature, but as acts of religious piety. Robert Boyle, for example, described scientific investigation as “reasonable worship” [λογικὴν λατρείαν] (Romans 12.1, Harrison 2014). Interesting work on the theme of science and the virtues has been broached by University of Durham physicist Tom McLeish (2014) and, from a rather different perspective, by historian and sociologist of science Steven Shapin (2008, 2015). There is now an intriguing project on “Developing Virtues in the Practice of Science,” under way at the University of Notre Dame under the direction of Celia Deane-Drummond, and it will be very interesting to see how that project develops.²

Fuller’s second proposal is that we seek a “rational pluralism” that will provide a common platform of a “safe epistemic space” for science–religion dialogue. I agree with the “pluralism” aspect of this proposal, but wonder about the specifics of establishing an epistemic space of this kind. The difficulty is that (at least according to my historical analysis) the vain hope of establishing one kind of neutral epistemic space was the product of an Enlightenment desperate to find a way of adjudicating between competing religious truth claims. But the ultimate cost of that exercise was the reduction of Christianity to beliefs and, indeed, the promotion and consolidation of a conception of religion as propositionally constituted. That was, and remains, a source of the problem rather than a solution to it.

I also have concerns about the particular form of the epistemic space that Fuller proposes with his recommendation that dialogue between science and religion be relocated “within broader epistemic parameters (such as those offered by van Huyssteen’s model of transverse rationality).” I well understand the impulse that drives a search for common ground, and have great admiration for van Huyssteen’s many thoughtful contributions to science–religion discussion. But on this particular issue I cannot see how an appeal to evolutionary epistemology can work. The strategy seems unhelpfully circular—seeking in a set of empirical claims about our evolutionary past a platform that will then enable us to ground empirical and other knowledge claims. Moreover, naturalistic epistemology, of which I take this to be a version, already has a declared position in science–religion discussions, since it is committed to the general reliability of a particular interpretation of evolutionary science and seeks to make science the measure of our knowledge claims. This assumes what is at stake, and reinforces the one-way direction of much contemporary science–religion discussion. There are, in addition, the well-known difficulties of grounding truth claims in evolutionary naturalism identified by Alvin Plantinga and others (Beilby 2002). So I affirm the end, but have doubts about the means.

Part of what motivates the paradoxical project of a post-foundationalist foundationalism is, I suspect, a fear of the incipient relativism of the apparent alternatives. For many, incommensurable paradigms and language games seem to lead ineluctably down the path of self-defeating relativism. (This, incidentally, was not the intention of the progenitors of these ideas.) On this point I should also stress that I am not advocating a retreat to some “noncognitive” view of religion or to what has been called “Wittgensteinian Fideism” (Braithwaite 1955; Neilsen 1967). We know that language games can change, and that individuals and various knowledge communities are not just slaves to prevailing ways of thinking. In place of a neutral space what we need is something more like persuasion and conversion. This might look like dialogue, but this particular kind of dialogue need not take place in some artificial space, insulated from particular ways of life. Wittgenstein again:

Where two principles really do meet which cannot be reconciled with one another, then each man declares the other a fool and heretic. I said I would “combat” the other man,—but wouldn’t I give him *reasons*? Certainly; but how far would they go? At the end of reasons comes persuasion [*Überredung*]. (Think what happens when missionaries convert [*bekehren*] natives. (1972, 81e, cf. 34e)

I should make it clear that I am not proposing a simple identification of science and religion as two discrete language games. The plurality of the relevant phenomena and their areas of overlap complicate things too much. In any case, this would amount to just another way of reinforcing the

artificial boundaries of the categories. But I do think that we can understand some of the tension and conflict in this field as arising out of variant forms of life, rather than as contradictions that exist within the same discursive space where outcomes must inevitably be zero-sum. Reasons work only up to a point, and within specific contexts. In more agonistic forms of science–religion interchange it is remarkable just how little progress is made through a dispassionate presentation of rational arguments (or deployment of historical facts, for that matter). We have abundant empirical evidence that argument does not seem to work very well. (For such evidence simply look in the unmoderated comments sections of blogs devoted to science–religion matters.)

Perhaps *conversion* offers a better model. For a start, it allows for the fact that apparent incommensurability, in practice, can be broken down. Further, the process of conversion is not just a matter of adopting a new set of beliefs and relinquishing others: it involves adopting new rituals and ways of life (Vasiliou 2001). Think in this context of Pascal (to whom Fuller adverts in this discussion) who, like Wittgenstein after him, suggests that belief follows immersion in a particular form of life.

You want to find faith and you do not know the road; you want to be cured of unbelief and you ask for the remedy. Learn from those who were once bound like you, and who now wager all they have. These are people who know the road you wish to follow, who have been cured of the affliction of which you wish to be cured. Follow the way by which they began. They behaved just as if they did believe, taking holy water, having masses said, and so on. This will make you believe quite naturally. . . . (Pascal [1670] 1966, 152)

Here I think that experimental science and Christianity are in agreement that some forms of knowledge will be inaccessible to those who do not share the experiences that result from the relevant form of life. Experiment is a classic case of such contrived experience—witness, for example the elaborate experimental setup of the Large Hadron Collider. The story of the modern sciences, from the seventeenth century onwards, has been that most of our scientific knowledge arises out of experiences that do not “just happen” in everyday life. (This was the assumption of Aristotelianism that was challenged by early modern experimentalists). Religious knowledge similarly is grounded in religious practices. Understanding both scientific and religious claims requires an understanding of the embeddedness of knowledge, and that the experiences upon which it is based are not simply available for general appropriation, at least in a direct, unmediated way. In this context, and as something of a historical footnote, it is worth noting important connections in the early modern period between what was known as “experimental religion” and experimental science (Picciotto 2010; Corneanu, 2011; Harrison 2011).

Finally on this point I come again to the idea that telling a particular historical story, the offering of an alternative narrative, is an important part of the conversion process. The kind of “combating” that takes place here involves the narrating of a different kind of story, one that seeks to nudge a distorted historical frame in the right direction. This can help undermine erroneous background assumptions and the claims that rest upon them. Concepts always have a historical dimension, and historical narratives, or “myths” if you will, are deeply embedded in the foundations of forms of life. Accordingly, my goal for *Territories* was that it perform its work through the narration of a better story than that commonly received.

Fuller’s third proposal is that we extend the boundaries of our discussion beyond “physical science” and “Christian theology.” With respect to “science” I think this is exactly the right strategy. All too often particular sciences—typically “physics” or “evolution” have been made to stand in for “science” as a whole. This conceptual synecdoche has been profoundly unhelpful, since the plural activities that share the label have different subject matters and different investigative strategies (in spite of the enduring fiction of a unitary “scientific method”). I am less sanguine about bringing the “religions” into the frame, partly on account of a historical analysis that suggests the so-called world religions are to a large extent Western constructions. This is less of an issue with Islam and Judaism, but in the case of traditions such as Buddhism can lead to deep confusions (Lopez 2008; Harrison 2010). Fuller’s own example of Balslev (2015) again suggests that our categories just may not fit the relevant phenomena.

The fourth proposal that Fuller sets out—“shared participation in practical projects”—has perhaps the greatest potential. This proposal involves the recognition that in a world that faces pressing problems, science can at best offer only partial answers (and arguably has been complicit in the creation of some of the problems). The examples that Fuller provides, largely around the areas of theology and applied psychology, give a good indication of the promise of this approach, and show how genuine partnerships involve robust two-way conversations (see, e.g., Watts 2010). A further example would be E. O. Wilson’s plea for a new partnership between scientists and religious leaders to help “save life on earth” (Wilson 2006). Such projects help us understand the enormous untapped resources that reside in religious traditions and their power to motivate ethical action. In all of this we should also consider whether the most pressing questions will turn out not to be scientific ones at all: in which case offering scientific answers will not help, however powerful the methods of the sciences might turn out to be in other, tightly circumscribed, contexts.

In sum, I would like once again to express gratitude to my four interlocutors for their generous assessments and for helping me think through in further detail some of the contentions and implications of *The Territories of Science and Religion*.

NOTES

1. Linda Lyons, "Paranormal Beliefs Come (Super)Naturally to Some," <http://www.gallup.com/poll/19558/paranormal-beliefs-come-supernaturally-some.aspx>, accessed 2 May 2016.
2. "Developing Virtues in the Practice of Science." <http://ctshf.nd.edu/research/virtues-and-the-practice-of-science/>, accessed 4 May 2016.

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