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## In defence of dialogue

**Yves Gingras: Science and religion: an impossible dialogue. Maiden, MA: Polity Books, July 2017, 272p, \$26.95 PB**

**Gijsbert van den Brink<sup>1</sup>**

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### A counterbalance

Yves Gingras' sustained reinvigoration of the conflict thesis may once again open our eyes to the many episodes in the history of science in which scientific advancement was hampered by religiously inspired shortsightedness and stubbornness. Even though his historical account is one-sided, biased and suffering from some serious mistakes—as Fehige and Richter point out, convincingly to my mind, in their contribution to this symposium—it is worth asking what actually drives it. How is it possible that someone who is quite familiar with the recent literature that has jettisoned the conflict thesis and brought to light the many nuances and complexities in science–religion encounters throughout the centuries still comes up with such a vehement and crude defence of it? Ironically, *Science and Religion: An Impossible Dialogue* at times has more of a sermon than of a well-balanced scholarly analysis. If the influence of religion in the Western world was as waning as it is often held to be, such a diatribe against it would be entirely superfluous. Apparently, however, even in a highly secularized country as Canada, religious pressures on the reception of scientific developments are still being felt. Gingras focuses on religious institutions, but, like once John William Draper in his classic (Draper 1874), singles out the Roman Catholic Church for special criticism (one may even wonder which *other* institutions he has in mind, since he does hardly mention any). Is it the heritage of a Roman Catholic past that still has to be dealt with here—not necessarily personally, but in any case culturally?

In asking this question, I am not debunking Gingras' views by suggesting a psychological explanation for them. Rather, my aim is to situate his book within a broader cultural setting, since this may help us understand and contextualize what is actually going on here. Although as a Dutch Protestant theologian I am in

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a totally different situation than Gingras (a Canadian atheist historian and sociologist), I can easily recognize much of the dissatisfaction that underlies his philippic. In my attempts to take the theory of biological evolution with due seriousness as a Christian theologian (cf. e.g. Van den Brink 2017 ET forthcoming with Eerdmans, Grand Rapids), I have met with fierce and ongoing opposition within my own orthodox Reformed environment. Although I intentionally couched my plea in careful and non-polemical terms, fellow-believers literally became angry with me and some of them resorted to silly rhetoric (“Does shaky contemporary science know things better than the eternal Word of God?”, “If we stem from the apes, why are there still apes around?”, etc.) to dismiss my point of view. Even though church institutions and official denominations usually are more reticent on questions of human origin these days, the atmosphere in some of them is equally anti-scientific. As Gingras rightly points out, this situation is exacerbated by contemporary postmodernism, especially in its latest “post-truth” version which simply replaces unwelcome facts by alternative ones. So, perhaps the tendency in recent historiography to highlight the complexity of science and religion encounters and the constructive nature of many of them has unduly obscured the role that conflicts (with all issues of power and powerplay involved in them) actually have played and still continue to play in such encounters.

To be sure, in my opinion Gingras’ book is lopsided in that it unduly reduces the manifold past relationships between science and religion to conflictual ones. Even when we limit our attention to institutions while ignoring the role of individuals, as he proposes, we should take into account that, for example, the Roman Catholic Church has served as an important sponsor of natural philosophy (e.g. astronomical research; cf. Harrison 2015, 173) and scholarship for many centuries. Protestant institutions, or general institutions dominated by Protestants, have fostered the advancement of modern science in previous centuries presumably to an even larger degree. Therefore, I remain unconvinced by the overall thesis put forward in Gingras’ book. Yet, his input can be welcomed and taken into account as an important counterbalance to recent tendencies to downplay the role of conflict in science–religion relationships.

## The desirability of dialogue

Gingras does not just aim at a historiographical correction or readjusting of the balance, however. Rather, he makes a much stronger claim which features in its most succinct way in the subtitle of his book, namely that dialogue between science and religions is *impossible*. In what follows, I will assess this claim. Is a dialogue between science and religion indeed impossible? On some construals of the question it certainly is. For one thing, a dialogue is only possible between persons, not between abstract entities such as science and religion. For another, as has often been pointed out in the recent literature (most forcefully probably by Harrison 2015), from a historical point of view both “science” and “religion” have flexible meanings and cannot be juxtaposed so easily to each other, as if they represented two clearly distinct realms of life. Science (or, previously, natural philosophy) and religion have

often overlapped in complex and intricate sorts of ways. Moreover, both science and religion only exist in the plural—therefore, it is a pity that the plural in the original French title of Gingras’ book (iv) has been changed into a singular in its English edition, since it would make more sense to inquire into the possibility of dialogues between various sciences and various religions.

It seems to me that at least *some* dialogues between representatives of the sciences and of religions on issues of common concern are not only possible but also desirable. We may even consider that such dialogues are more urgent than ever, given the fact that religions (especially in their orthodox varieties) often feel tempted to embrace the science-scepticism that is also virulent in secular postmodernism. As Gingras eloquently points out (Chapter 7), such pitting of religion against science has all kinds of unwelcome consequences, especially in our politically volatile times. Therefore, if about 85% of the world’s population is somehow religious (as current estimations have it), and if we care about the ongoing influence of science in the world, we might better talk to each other. And if it is true that calls for dialogue only come “from religion and their [sic] spokespersons” (163), we should criticize this, since science is no less in need of such dialogue.

Here again, however, we should be careful not to plot science and religion as two entirely separate entities. As a matter of fact, they are united in many persons as complementary parts of their search for understanding. Indeed, especially, religious people who work in the sciences or (to put it the other way) scientists who are religious have much reason to wonder how their faith—and especially their propositional belief statements if they are cognitivists (as most religious believers are)—relates to the methods and results of the sciences. Dialogue on this question may take the form of an internal conversation, but it can be pushed to a higher and more professional level when organized with peers. Some of the journals that Gingras criticizes, such as *Perspectives on Science and Christian Faith*, are devoted to this goal. In an obvious (but not trivial) sense, therefore, we *do have* dialogues on science and religion, and it has not become clear to me why Gingras thinks these are misguided. One need not even be religious to see the point of such dialogues, since they may considerably advance our understanding of the various roles that science and religion may play in human lives. Religions are a subset of a larger category that might be called *views of life*, and since somehow everyone has a view of life (whether theistic, based on some variety of atheism, or agnostic), the science–religion relationship has a wider relevance for all who want to reflect on how scientific developments impact our views of life and vice versa.

## Does only science have a say about facts?

What Gingras has in mind when advancing his impossibility-thesis, however, seems to be something else. Drawing on dictionary definitions, he characterizes a dialogue as “an exchange of arguments in order to establish a thesis, a theory or even a statement of fact” (161). Although this is a pretty flat definition—why should genuine dialogue necessarily be directed at the establishment of distinct facts, instead of more broadly at the enlargement of one’s understanding?—let us adopt it for the

sake of argument. Using this definition, it is easy to see Gingras' central point: only science has a say on the truth or falsity of theses, theories and statements of fact; religion does not qualify at all here and therefore has no proper part to play in the wished-for dialogue.

Let us first consider, however, that not all theses, theories and statements of fact are empirical. For example, we have moral theses, metaphysical theories and existential statements of fact. Specimens would include: "It is good to invest time and energy in fighting the detrimental consequences of religion", "Science is the sole arbiter in questions of truth and falsity", "God does not exist", "Life is meaningful", et cetera (note that even the final statement is indeed a statement of fact, not just of value: either life, however defined, is meaningful, or it is not). Clearly, such theses, theories and statements do not belong to the indubitable results of science. The intersubjective agreement between "informed individuals" that, according to Gingras (197, 198), is typical for science, is lacking here. At best, science can offer some important considerations that bear on them, but it can by no means *verify* them in any incontrovertible way (strangely enough, Gingras still adheres to verification as a norm for science, 197, as if logical positivism with its verification principle has never collapsed, as if we haven't had a Popper, let alone a Kuhn, etc.; as a result, in the light of the newer philosophy of science Gingras' rendering of how science actually goes about, not only in the so-called context of discovery but also in the context of justification, is rather simplistic). Therefore, other sources of human insight, such as religious traditions and theological reflection, rightly come into play here.

## Ian Barbour on the nature of science–religion dialogue

Perhaps, however, Gingras would not object to the idea that religion—or, more precisely, theology as the discipline that rationally reflects on its data—can play a role in the dialogue on moral, metaphysical and existential questions next to science. Although he is mostly silent here, at one point he at least allows for an ethical role of religion in "changing collective mentalities (...) so as to make life on Earth sustainable" (180), as Pope Francis has urged in *Laudato si'*. The main point, which Gingras hammers home, is that science and science alone decides about empirical matters. So it is here that religion cannot make any inroads and that, presumably, a dialogue between the two is impossible. Is this a tenable and reasonable view? In order to figure this out, we do well to turn to those who have recently advanced the case of a dialogue between science and religion in the first place. What exactly did they have in mind? It is remarkable that Gingras often refers to historians of science as the main culprits, who actually did *not* (as Fehige and Richter rightly point out) promote the dialogue-ideal, whereas he ignores—and continues to ignore in his response to this paper elsewhere in this issue—more systematic thinkers who did so. In particular, there is no discussion of Ian G. Barbour's famous (or infamous in some quarters) typology of ways of relating science and religion, which introduced the possibility of a dialogue between the two.

According to Barbour (e.g. 1997, 90–95), those who advocate dialogue between science and religion (and Barbour includes himself in this group) focus on (1) basic

presuppositions of science and so-called limit questions, and on (2) methodological parallels between the two. Limit questions are questions that are raised by science but cannot be answered by it. For example, how is it possible that the universe is on the one hand contingent (in the sense that its laws and initial conditions were not necessary) and on the other hand orderly and intelligible? Isn't this, along with the world's astonishing beauty and complexity, a reason for awe and wonder? In any case, according to many it is here that dialogue with religious perspectives on life is elicited—especially with theistic perspectives according to which “God is the creative ground and reason for the contingent but rational order of the universe” (Barbour 1997, 91). Is it an impossible dialogue that unfolds itself here? I see no reason why. And as long as Gingras does not tell us, it remains unclear why we should think so.

As to the methodological parallels, it is worth quoting Barbour in some more detail here, since, taking his starting point in the newer philosophy of science, he corrects the old and crude dualisms (science is objective, religion subjective; science is based on reason, religion is irrational, etc.) that Gingras revives:

Since the 1950s, these sharp contrasts have been increasingly called into question. Science, it appeared, is not as objective, nor religion as subjective, as had been claimed. There may be differences of emphasis between the fields, but the distinctions are not as absolute as had been asserted. Scientific data are theory-laden, not theory-free. Theoretical assumptions enter the selection, reporting, and interpretation of what are taken to be data. Moreover, theories do not arise from logical analysis of data but from acts of imagination in which analogies and models often play a role. Conceptual models help us to imagine what is not directly observable (Barbour 1997, 93).

Barbour then points out that in the interpretation of religious experiences, rituals and scriptural texts, the situation is not structurally different. Here as well, we have to do with unobservable entities; as a result, metaphors and models play a key role in religious language. On a larger scale, Kuhnian paradigms govern the interpretation of data in similar ways in science as in religion, and in times of paradigmatic crisis it is impossible for scientists to verify or even falsify their theories—like it is impossible to find out “objectively” which religion is right. At best, scientists can use rather formal criteria such as coherence, comprehensiveness and fruitfulness to make a considerate theory choice. Without denying the considerable differences between the two fields, Barbour argues that these criteria “have their parallels in religious thought” (93)—as a result of which dialogue on the use of such parallels may be illuminating.

Barbour concedes that such methodological issues may be somewhat abstract and therefore mostly of interest to philosophers of science and religion (95). He therefore raises the question whether meaningful dialogue between science and religion might also be possible about more substantive issues and, indeed, moves on to a sympathetic discussion of attempts at *integrating* science and religion. It has been pointed out that Barbour's fourfold taxonomy (Conflict, Independence, Dialogue, Integration) neatly reflects his personal development as a thinker on the science–religion relationship: raised in an environment where science and religion

were often considered as being in conflict, he moved on from viewing them as separate domains towards seeing them as partially overlapping, in order to end up as one who strives at integration (in his case along process-theistic lines) (cf. Berg 2004, 65). For Barbour, therefore, in the end there was hardly any issue that did *not* ask for dialogue between science and religion.

## Dialogue on substantive issues

Could we indeed conceive of substantial issues where such dialogue might involve more than “religion” just listening to “science” and adjusting itself to its latest findings? I think we can, although I agree with Gingras that in the day-to-day practice of mundane science one should proceed in accordance with the principle of methodological naturalism. In the case of reported miracles with a religious value, however, the scientific attitude may require openness to novelty and contingency rather than dogmatic a priori rejection of their feasibility—so here again dialogue with religiously inspired perspectives may be relevant. The very possibility of divine action has received sustained attention during the past decades in circles of science-and-religion thinkers and—irrespective of which position one takes—it cannot be denied that dialogue on this issue has been relevant and mutually enriching. And finally, of course, we have the “big questions” that, although at the limits of science and even of human imagination, are still substantive enough to attract much attention even on a popular level. Does freedom exist or is all of our behaviour determined—biologically, neuroscientifically or otherwise? Are human beings rational persons who can take decisions or are we just deluded by our brains in this respect? Do moral values exist, or is morality just “an illusion fobbed off on us by our genes” (Ruse and Wilson 1985, 52). Does God exist? The answer to none of these factual (!) questions is self-evident, and the way we are inclined to answer them is usually deeply related to our personal (religious or non-religious) view of life.

An important task of religion and theology in these debates is *not* to provide alternative facts as compared to what scientific research leads us to believe, but to disentangle the proper results of science from coincidental add-ons that may seem equally scientific, but as a matter of fact are much more inspired by the view of life of those who adhere to them. Fred Hoyle’s preference for the steady-state model as opposed to Big Bang theory was reportedly inspired by his aversion to the idea that the universe might have a beginning, since that idea sounded dangerously religious to him. The view that the process of random genetic mutations in biological evolution rules out all accounts of divine providence may not be based on a careful analysis of the involved notion of randomness or chance, but on the wish to suggest that evolutionary theory can only be interpreted along atheistic lines (cf. Van den Brink 2017, 263–289). Here, dialogue between biologists and theologians might serve to sort out this issue in a way that hopefully overcomes any biases that follow from personal views of life (cf. Aanen et al. 2018). In such a dialogue, it is the main task of theologians to explain how notions of divine providence have been and might be conceived of and to determine to what extent they are (in)compatible with evolutionary randomness as explained by biologists.

Similarly, an important dialogue between religious and scientific points of view takes place on the so-called anthropic principle or “finetuning of the universe”. Despite Gingras’ quick dismissal of this topic as a case in point, it cannot be denied that such a dialogue *is* in fact going on (for an overview, see, e.g. Collins 2012). Without offering much of an argument, Gingras sides with those who claim that the anthropic principle “is in fact a tautology, because it is obvious that if the universe (...) did not have the characteristic required for the existence of life (...), then there would be no life”(164). And since there is life, it is no wonder that the parameters are such that it could emerge. This line of thought, however, has been countered by theologians, philosophers of religion and even (as Gingras grudgingly acknowledges) by some astrophysicists. Here is a famous rejoinder that has been put forward by various theistic thinkers: “(...) if 50 sharpshooters all miss me, the response “if they had not missed me I would not be here to consider the fact” is inadequate. Instead, I would naturally conclude that there was some reason why they all missed, such as that they never really intended to kill me” (Collins 2012, 276). Similarly, the finetuning of the universe *is* astonishing, and its most natural explanation might be that there is a reason for it, viz. the existence of a creative God. Of course, Gingras might come up with some counterargument against this analogy, but if he does so he becomes involved precisely in what he holds to be impossible, viz. a dialogue between science and religion. Many atheist philosophers have come up with such counterarguments, though, and so the dialogue continues.

Alternatively, Gingras might reject this entire debate as misguided, since appealing to the possible existence of (a) God in this connection violates the methodological naturalism that is constitutive for the entire scientific enterprise. Here again, the question is what methodological naturalism exactly amounts to and how far it extends. Methodological naturalism should not be conflated with metaphysical naturalism, since clearly it is a *non sequitur* to conclude from the maxim that God “should be kept out of science” to the view that God does not exist, or cannot act. Yet, this conflation is often made and, either consciously or unconsciously, Gingras seems to make it as well. It is precisely for this reason—the tacit but unwarranted equation of methodological and metaphysical naturalism—that some Christian thinkers have recently come to deny methodological naturalism its status as an unsailable dogma of science (e.g. Torrance 2017). Perhaps religious believers should not go this way, but it is the task of theologians to carefully watch over the difference between methodological and metaphysical naturalism and to remind overly enthusiast scientists who tend to lose sight of it. So here again, it seems to me, is an urgent and important issue that may both require and benefit from argumentative dialogue between proponents of the scientific method on the one hand and adherents of religious traditions on the other—or science and religion for short.

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