

## It's Harder Than That Upping the Ante on the Science / Religion Debate

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*Note: These notes to a paper (forthcoming) are provided as fodder for conversation at SSQ at Harvard. Please do not cite or quote. Comments, of course, are welcome.*

### I. Introduction

#### A. History

1. It is an honour to be here, to participate in this second SSQ conference
2. It was also a privilege to participate in first SSQ conference, in Berkeley (June, 1998)
3. Overall SSQ project is a great thing (applaud its goals; honour the organizers)
4. Yet I confess: I went home discouraged
5. Want to talk about that discouragement today

#### B. Problematic: people were altogether *too agreeable*

1. Yes: there is a salutary middle road, between strident voices of scientific or religious extremism
2. Understand: this is one of Sir John Templeton's goals, in so generously funding the series: to search for, nourish productive, dispassionate voices of moderation
3. What troubled me: strident discord replaced by dulcet tones of liberalism.
4. Basic view
  - a. Let a thousand...or at least two...flowers bloom!
  - b. If properly understood, science & religion don't compete
  - c. They describe different realities
    - i. Or different aspects of the same reality
    - ii. Or even the same aspects, but in different ways.
  - d. Like any robust consensus, room for nuance, interpretation, and variance
  - e. Many of which heard from 3 years ago (and hearing last two days?)
5. But same essentially ecumenist bottom line repeatedly echoed:

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- a. Pluralism reigns
- b. There isn't really any fundamental conflict
- c. We can all get along.
- 6. Form of ecumenicism or cultural tolerance, enmeshes (as we will see) in a general mood of post-modern pluralism.
- 7. As a result: no one rent in agony; no one was tearing out their hair.
- C. Project
  - 1. I want to argue to a much more curmudgeonly conclusion
  - 2. Fundamentally, i think it is *harder than that*
  - 3. This liberal **compatibilism**—and the political / intellectual quietism to which it leads—simply will not do
    - a. It doesn't cut deep enough (understandings of each are shallow)
    - b. Don't believe its compatibilist premise is even true
  - 4. Most of all, don't think it is anything like strong enough to address the urgent problems facing either tradition: religious or scientific
  - 5. In fact it strikes me as no more than bald accommodationism—with all the negative connotations that word connotes (dub it a form of **quietism**)
- D. Alternative
  - 1. But if not that, then what?
    - a. *Certainly* not return to (or even license) ill-fated extremism [especially these dark days]
    - b. Don't want to agonistically refuel science-religion wars, either.
  - 2. Rather, in order to move forward—to be progressive—we need something far more radical

## II. Compatibilism

- A. Basic view
  - 1. Scientific & religious world views are both *valid*
  - 2. They are just *different*
    - a. For example: different subject matters
      - i. Religious: have to do with *ethical* or *spiritual* issues
      - ii. Scientific: have to do with *causal* or *physical* relations—i.e., *material world*
    - b. Or: different purchase on the people who hold the view
      - i. Scientific: *public, objective, impersonal 3<sup>rd</sup>-person* form of *knowing*
      - ii. Religious: *private, subjective, personal, 1<sup>st</sup>-person* form of *experience*
    - c. Or again: answer to different normative practices
      - i. Science: with *is*
      - ii. Religion: with *ought*
      - iii. One way to say this
        - α. Science deals with **matter**—the noun

- β. Religion deals with **matter**—the verb
      - d. Or again: different standards of validity
        - i. Science
          - α. Responsible for empirical world
          - β. In accordance with public norms of *abstraction, repeatability, verification*
        - ii. Religion
          - α. Responsible for different (spiritual) realm
          - β. Responsible to different standards: *inspiration, divine grace, illumination, God's will.*
  - 3. Variation
    - a. Obviously various options can be combined / recombined, refined / elaborated, mixed and matched, into a thousand different tapestries
    - b. Just because they make room for science and religion to co-exist, that doesn't meant that they stop or even slow integrative effort
    - c. Sure, accommodationists can admit we still have huge amount of work to do:
      - i. Update religious mythologies to reflect (make room for) more accurate, scientific natural philosophies
      - ii. Modify formative standards of religious community, to build in profound tolerance of others. E.g.:
        - α. Challenge any sect's claim to unique access to the Truth
        - β. Question any religious community/s arrogating to itself the idea of being a "chosen people"
        - χ. Defeat the notion of "infidel"
  - 4. Still, basically *status quo*: religion & science, each roughly as it is now, can survive
- B. Rationale: All sorts of reason to support this quietism
  - 1. Intro
    - a. Won't here dwell on variations of interpretation & strategy (room within compatibilism)
    - b. Rather, draw attention to slick ways compatibilist strategies fit reigning liberal principles
    - c. Basically: compatibilism fits into the reigning view of **cultural pluralism**
  - 2. Overarching liberalism: desire for tolerance, accommodation of different experiences, views
  - 3. Supported by post-structuralism and various other forms of literary critique:
    - a. Foundationalism is dead
    - b. Univocal approaches—even within science—are passé (imperialist, male, ...)
    - c. No master narrative!
    - d. Every story is partial, perspectival, contingent, inextricably contextual
    - e. Supported by every major theory of language
  - 4. Similar results: trumpeted through the academy

- a. Partly explain modern university's sentimentalization of interdisciplinary programs.
- 5. Interestingly, scientific (i.e., science-*internal*) results lead in same direction:
  - a. Overview
    - i. Against: 19<sup>th</sup>-c. ideal of univocal, informationally-complete, formal model of world
    - ii. In favour: Competing, partial, perspectival stabs at a directly-unknowable nature
  - b. Rehearse / review 20<sup>th</sup>-century science's major results to show this:
    - i. Quantum mechanics
    - ii. Relativity
    - iii. Incompleteness (Gödel)
    - iv. (Absolute) non-computability (Turing)
    - v. (Relative) non-computability: complexity theory
    - vi. Non-linear dynamics and chaos
  - c. More recently:
    - i. Emergence: upper level may bear *no intelligible relation* to lower
      - α. Aside: epistemic reading of "emergence"
  - d. In sum, drove a death-knell wedge between prediction and determinism
- 6. Similarly, history of science: incommensurability
- 7. Yet again: more recent science studies, SSK, STS, etc.
- C. Put it all together
  - 1. *Everyone* is saying, in every conceivable academic and intellectual realm, that there are multiple stories, each of which provides at least a particular and perspectival view on reality.
  - 2. Against this intellectual backdrop, making room for science and religion to coexist—each in its own way, not just as two differing but nearby stories, but two whole genres of story, of experience, of knowledge, of being—is *no-brainer*.
  - 3. In fact, given present intellectual climate: something of null hypothesis.
  - 4. Who could imagine—who could ask for—anything more?
- D. In sum: In current intellectual climate, compatibilist response to science/religion question is almost a *dead certainty*
- E. Note: Interesting resulting picture of what it is to be human
  - 1. Vaguely Cartesian
  - 2. But not substance dualism (few believe this): that mind/soul and body are different
  - 3. Rather: tends to lead people to hold what philosophers call *property dualism*
    - a. Essentially distinct properties (having a soul, etc. vs. being composed of hydrocarbons)—both of which are true of people.
    - b. I.e., each person a single (not divided) being, but
      - i. Chemical / causal / physical properties are one thing

- ii. Spiritual / religious / (perhaps) conscious properties, another
  - c. Obviously, two kinds of property affect each other, in single human being
  - d. In concrete intimacy of selves, may be essentially seamless
- 4. But domains of intelligibility—ways in which we understand the properties, and the ways in which we understand ourselves in terms of them—remain profoundly, inexorably distinct.
- 5. But it is a unidirectional monism
  - a. Most people “solve” the mind-body problem in one direction
  - b. Body can influence mind: drugs, coffee, psycho-pharmaceuticals, etc
  - c. But: mind doesn’t influence body!

### III. First Challenge • Encroachment

- A. Structure
  - 1. Intro
    - a. First challenge to compatibilism relatively easy
    - b. Deny first premise: that *realms* are different
  - 2. Detail
    - a. All results cited above (relatively, quantum mechanics, chaos, complexity, etc.) are within the physical world (bumping and shoving, causes, mechanisms, etc.)
    - b. But science isn’t staying put—not staying within that physical realm
    - c. On the contrary, rapidly encroaching on territory *traditionally considered to be religious*.
- B. Examples
  - 1. Topics that—as we sit here today—scientists around world offer up accounts of:
    - a. *Consciousness*
    - b. *Altruism*
    - c. *Emotions*
    - d. *Personal identity*
    - e. *Subjective / first-person experience*
    - f. *Sexual fidelity*
    - g. *Violence*
    - h. *Values*
    - i. *Ecstatic and meditative states*
    - j. *Risk-taking, etc*
  - 2. Leaving aside question of what kind of explanation science provides, can’t deny that this list of phenomena have classically been understood in ethical, humanistic—and *spiritual*—terms.
  - 3. That is: all the topics on the list have been *traditionally considered sacred*
- C. Altruism
  - 1. Consider altruism, to take just one representative example

2. Maxim to “do unto others as you would have them do unto you” as close to common religious principle as any—at least in the Abrahamic traditions
  3. But religious centrality is not immunity to scientific domestication
  4. When just “selfish genes” and “generous people,” may have been chance to give science reign over the “sub-personal” (as philosophers call it)
    - a. I.e., science: dominion of physical components out of which are bodies are made
    - b. Retain, for whole humans (or perhaps society) larger, deeper, perhaps even non-physical form of generosity.
  5. But physical part and physical whole not a boundary respected by science.
  6. Already, biologists are proposing models of the evolutionary advantage—and thus causal emergence, both phylo- and ontogenetic—of what it is to be good to one’s neighbour.
  7. ... Similarly, cite evolutionary psychology, epistemology, and sociology. ...
- D. Note: altruism just one example. There seems *no limit* to the number of topics, which would traditionally be called “sacred,” being swept up in the scientific juggernaut.
- E. Rationale
1. ... If time, talk about Descartes’ heritage: to have split physical off from spiritual, to allow physical to be domesticated by science.
  2. ... Then split, in 19th century, rise of models of rationality, logic, reason, etc. (Boole, Frege)
  3. ... Then union, at beginning of 20th century, into formalism (logic, computing)
  4. ... Two realms (empiricist and rationalist) fused into computing and IT
  5. ... Now: AI, VR, ALife, bio-tech, genomics, cloning, etc. ...
- F. Challenge
1. In sum: idea that science and religion treat different subject matters, even if it was once true, is true no longer.
    - a. Science rapidly taking over territory traditionally considered religious
    - b. That is: *territory that, on the compatibilist view, is considered to lie on the religious side*
  2. So: can no longer hold onto the assumption that science and religion will stay out of each other’s way
  3. Moreover (up the ante): *if they conflict like this (on this sacred territory), science will win*
  4. As a result, those who want to hang onto the religious tradition—or even onto a sense of being religious—these people should be *worried*
- G. Status: advantage: science

#### IV. First Response • Science in Transition

- A. Analysis
1. So far, this challenging—and, from a religious point of view, discouraging—result

depends on a critical pair of intertwined assumptions<sup>2</sup>

- a. That science is, in fact (at the moment), objective, “mechanistic,” causal, 3<sup>rd</sup>-person, etc.
  - b. That science, as it progresses (or anyway keeps on going) will (in the future) *remain* mechanistic, reductionist, causal, 3<sup>rd</sup>-person, etc.
2. More abstractly: the first challenge’s *being challenging* depends on science’s understanding of the world (the scientific form of knowledge, scientific experience, whatever) being *from a viewpoint that is different from that of the religious viewpoint*.
  3. Otherwise, the challenge would collapse. Science would simply be a form of religiosity (not just that people accord it religious devotion and zeal). So whole issue would collapse.
- B. Reply
1. What I believe, however, is that those two assumptions *are false*
  2. More positively: *science is changing*, in two (intertwined) ways:
    - a. Our conception of science (what it is, has been, can be) is undergoing radical revision
    - b. Science *itself* (the programs and practices) is changing—methodologically, foundationally, and in a myriad other ways—not just by expanding its canvas (above).
  3. Claim: we absolutely need to understand these (present and future) changes, in order to tell what bearing the “encroachment” challenge has on the question of the relation between science and religion.
  4. In this section, therefore, look a little at **science in transition**

*Note to the reader: the notes from this point forward are somewhat more abbreviated than has been the case up to now.*

- C. Science in transition
1. Three ways we can see science undergoing radical change:
    - a. Science studies, etc.
      - i. Feminist  $\phi$  of science
      - ii. History and philosophy of science (e.g., Kuhn, Feyerabend)
      - iii. Post-structuralist analyses of science
      - iv. Tremendous evidence being built up to show that science is not as “value-free”, purpose-independent, as is held on the classical myth
      - v. Instead: conception of the “construction” of scientific facts
      - vi. Leads into (more or less radical) constructivist metaphysical stances. This is

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<sup>2</sup>Actually there are two versions of this: that it will stay *physical, causal, mechanistic, 3<sup>rd</sup>-person, etc.*, and that it will stay *as it has been*. These come apart if, as I believe, it is not *currently* causal—that is, is not as present-day myths would have it. See subsequent sections.

important; we will get back to it. But set it aside for now.

- b. Situated cognition (cognitive science, etc.): note: this is our best scientific account of *how people think*—how they learn, how they know, how the relation between their symbolic structures and the nature of the world works. So it is a serious scientific body of work on the nature of knowing.
  - i. Embedded cognition
  - ii. Tacit knowledge
  - iii. Emergentism
  - iv. Embodied, tacit, non-conceptual
  - v. First-person experience
- c. Reflexive cog sci  $\Rightarrow$  science.
  - i. The point here is that cognitive science is a **reflexive** discipline: the substantive claims of its theories must (on pain of inconsistency) hold of the theories itself.
  - ii. This means that the results about cognitive science, situated cognition, etc., *are directly applicable to the structure of science*.
2. These results all dove-tail with the scientific results cited earlier, about the nature of the world (chaos, relativity, etc.).
3. They all cater to what I called “cultural pluralism” in section II.

#### D. Analysis

1. So: science isn’t any longer what it was—or anyway what we thought it was
2. Call the result “**science-prime**” (and the old thing *classical science*)

#### E. First response

1. So how does this bear on our argument?
2. Main point: all the debates (and intuitions!) about the relation between science and religion are framed in terms of the old (objectivist, 3<sup>rd</sup>-person, causal, non-perspectival, etc.) conception of science.
3. But now we have to consider the **relation between religion and science-prime**
4. That is what we will take as our response to the first challenge.

#### F. Discussion

1. It is immediately clear that, when subjected to this response (that we need to consider science-prime, not science) the first challenge no longer obviously holds.
2. For note, wrt science-prime:
  - a. *Mechanistic* focus isn’t inviolate (cite: logic, computer science, etc.)
  - b. *Third-person* focus isn’t inviolate, either
  - c. *Objectivity*: even some doubts to the idea that science has ever been objective in the sense in which most people think (value-neutral, perspective-free, absolutist account of a world, where the account (or at least the *content* of the account) is independent of the theorist.



3. So here's the idea
  - a. Maybe science, instead of value-neutral, objective, view-from-nowhere, etc.—inimical to religious insight—will change to incorporate first-person experience, consciousness, tacit knowledge, etc.
  - b. That is: maybe science-prime is, or can be, or even will be *itself be a religious viewpoint*.
  - c. Not religion as we know it
  - d. Not explicitly labeled with the 'r'-word.
  - e. But nevertheless religious in fact

## V. Second Challenge • Not enough

- A. Preliminaries
  1. The situation described in the first response wouldn't revive compatibilism, per se (i.e., strictly speaking), since it wouldn't lead to a position in which science and religion were compatible, non-challenging jointly-holdable views.
  2. Rather: it would be a claim that science is *directly* compatible with religious insight
  3. That is (once one recognizes the politics of the situation): science *subsume* religion, or *become* a religion
  4. So in a weak sense, the challenge to compatibilism might not be defused
  5. But note that we already have multiple religions—and also that we still have a commitment to cultural pluralism
  6. So what would happen is that science-prime would become *another religion*.
  7. And so, in a weak literal sense, but in a strong general sense, it would retain a kind of compatibilism.
- B. Analysis
  1. If the place we have gotten to in the argument is that compatibilism has been retained ("in spirit", anyway, if we can say that), then you might expect compatibilists—i.e., all those people at the first SSQ who so worried me—to be happy with this position.
  2. In point of fact, however, I suspect that exactly the opposite is the case.
  3. For many readers, this whole argument may be starting to get rather worrisome
  4. For rather than calming anyone, I suspect that this point we have reached should be, or is anyway likely to be, causing ulcers and heart attacks on *both* sides of the debate
    - a. For scientists: it may look as if we have sold what matters most to them (that science is *not* mystical, religious, culturally specific, etc.) down the river.
    - b. For those who are religious: they may well be worried that, even given what I have said about science-prime, and even supposing that science-prime comes to be (i.e., becomes socially-validated, premiere form of knowing in society), that what is sacred to them—that is, as they would put it, that what is *genuinely sa-*

*cred*—would be steamrolled over by the still-not-very-different-from-classical-science-or-anyway-not-nearly-different-enough juggernaut.

### C. Conclusion

1. But we don't need to worry about both kinds of compatibilists being unhappy, because I am not happy either.
2. A second challenge can be raised.
3. In particular (I don't have time to argue, here, why this should be so—but I suspect that virtually everyone who has come this far in the argument will agree with this, so it won't hurt too much simply to introduce it), there is the following second challenge to be made:
  - a. Maybe science not changing enough
  - b. "Sure," someone might say (in fact I do say) "science is undergoing radical revision. And it is interesting, what you say—that in the process of this transformation, it is beginning to take on some of the characteristics that have traditionally been more characteristic of religious traditions."
  - c. "Nevertheless," such a person would go on, "the basic world view on which science is founded—of a causal substrate, supervening on quantum mechanics, such that causal descriptions are what counts as explanations, etc.—none of these things are obviously challenged, in your supposed progress of classical-science to science-prime."
  - d. "The basic metaphysical world view of science remains," they would go on. "And that world view simply isn't big enough to include the kinds of thing that a religious person takes to have ultimate existence."
4. We can put this more succinctly as a second challenge:
  - a. Even if its substantive content and methodological premises change as much as I am suggesting they might,
  - b. ... Science-prime as here conceived isn't based on a powerful enough ultimate world view to be a "proper" religious foundation.

## VI. Second response • Successor metaphysics

### A. Discussion

1. Let me put my cards on the table: I may agree w/ the second challenge
2. In particular, (we have to be careful here): I agree with the following statement:
  - a. That *if* science-prime doesn't change its ultimate metaphysical world-view, then that science-prime won't be powerful enough to do genuine justice to what has mattered most—i.e., to the most profound insights—of the religious traditions.
3. That is, I am not sure whether science is changing enough
4. But also, to complicate things, I am not sure that how science changes is immune to influence
5. That is: we might be able to *affect* how science gets developed.

- B. Project
1. But in a way, these questions aren't as important as they might seem, because I believe that the appropriate response to the second challenge is pretty much the same
  2. That is: the response to the second challenge is the same, whatever one's perspective.
  3. It comes in two parts
  4. First, we have to:
    - a. Recognise that there is a convergence of concern (between science-prime and the religious traditions)
    - b. See, as best we can, what science is really like; and also how it is changing (so that we can get a realistic estimate of what science is like)
    - c. Determine whether that changing conception of science is adequate to the task of serving, in coming decades and even centuries, of what is sacred
  5. And if that conception of science is not strong enough, then the response is simple:
    - a. **We must fix it.**
  6. That is, we need to develop a *new account that can meet this double demand*:
    - a. Underwrite a reflexive, expanded inquiry into the nature of knowing, being, participating in the world, etc., that does justice to all the scientific research to date, including not only all those major 20th-century results, but also the widened scope of inquiry into intentionality, consciousness, etc., and that meets the reflexivity demands of cognitive science; and also
    - b. Do justice to what matters to the religious traditions.
- C. Metaphysics
1. That is, the only thing that is tenable, for either science or religion, *given their increasingly overlapping domains of interest*, is to develop a new metaphysics on which to rest them both.
  2. Two options (but come to same thing)
    - a. Update religion to be compatible with science's take on sacred topics
    - b. Adjust science-prime, so that it is compatible with (what is right about) religious insight
  3. Call the result **science-double-prime**
  4. Science-double-prime would be a religious perspective on the world.
- D. Conclusion
1. I will just say this: developing science-double-prime is an *extremely* large project
  2. On the other hand, I don't see any other way of reconciling our understandings of the world
- E. Postscript
1. In a way, what I am saying is that we have only two options
  2. Option one

- a. Stick with liberal compatibilism
  - b. My claim: singing the praises of compatibilism is a song that only Nero could accompany
  - c. The quietism it leads to will either:
    - i. Hand victory to the scientific hegemonists (scientific extremists); or (worse)
    - ii. Hand victory to the fundamentalist right (religious extremists); or at least
    - iii. Surrender the terms of the debate to an ultimately irreconcilable contest between these two fundamentally-flawed approaches.
  - d. *None of those things is acceptable*
3. Option two: develop an integrated view
    - a. I.e., develop science-double-prime
    - b. I.e., heal the divide between 'matter' and 'mattering'
  4. Option two, I believe is the only positive way to move forward.
    - a. But doing it is unutterably *urgent*
    - b. Doing It is also unutterably *hard*
    - c. And note: *neither science-as-we-know it, nor religion as we know it will survive*
  5. Status
    - a. One way lies disaster
    - b. The other way lies complete metaphysical overhaul of our entire world view.
  6. Bottom line: we *should* be tearing our hair out.

