# IRAS @ 60 and The Future of Religion and Science

with Karl E. Peters, "The 'Ghosts' of IRAS Past and the Changing Cultural Context of Religion and Science"; Michael Ruse, "Why I Am an Accommodationist and Proud of It"; Nancy Ellen Abrams, "A God That Could Be Real in the New Scientific Universe"; Whitney Bauman, "Religion, Science, and Globalization: Beyond Comparative Approaches"; Zainal Abidin Bagir, "The 'Relation' between Science and Religion in the Pluralistic Landscape of Today's World"; Sarah E. Fredericks and Lea F. Schweitz, "Scholars, Amateurs, and Artists as Partners for the Future of Religion and Science"; and Willem B. Drees, "From Authority to Authenticity: IRAS and Zygon in New Contexts."

# WHY I AM AN ACCOMMODATIONIST AND PROUD OF IT

## by Michael Ruse

Abstract. There is a strong need of a reasoned defense of what was known as the "independence" position of the science-religion relationship but that more recently has been denigrated as the "accommodationist" position, namely that while there are parts of religion fundamentalist Christianity in particular—that clash with modern science, the essential parts of religion (Christianity) do not and could not clash with science. A case for this position is made on the grounds of the essentially metaphorical nature of science. Modern science functions because of its root metaphor of the machine: the world is seen in mechanical terms. As Thomas Kuhn insisted, metaphors function in part by ruling some questions outside their domain. In the case of modern science, four questions go unasked and hence unanswered: Why is there something rather than nothing? What is the foundation of morality? What is mind and its relationship to matter? What is the meaning of it all? You can remain a nonreligious skeptic on these questions, but it is open for the Christian to offer his or her answers, so long as they are not scientific answers. Here then is a way that science and religion can coexist.

*Keywords:* accommodationism; foundations of morality; fundamental question; Independence position; Thomas Kuhn; mechanism; metaphor; mind-body problem; Scientific Revolution; the problem of meaning

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## ACCOMMODATIONISM AND ITS DISCONTENTS

Thirty years ago it was all so innocent. From the side of science, those of us involved in the science-religion business, especially those of us involved in the evolution–Creationism fight, included the scientists Francisco J. Ayala and Stephen Jay Gould, me as the house philosopher, Ronald Numbers as the historian, and Langdon Gilkey representing religion. We differed among ourselves on both science and religion, but basically we were united when it came to how to deal with things. Both from conviction but also as a matter of practical policy, we endorsed what was known in some circles as "neo-orthodoxy" and in others (especially following Ian Barbour's [1990] taxonomy of possible positions) as the "independence" view. We realized of course that there can be clashes between claims made in the name of science and claims made in the name of religion. That was why we had come together. You cannot hold simultaneously to the Genesis account of origins taken literally and to the Darwinian theory of evolution through natural selection. And, if anything was to be taught in science classes in state-supported schools, we wanted it to be Darwin not Genesis. But that said, we were agreed that what we thought of as the essential claims of religion, let us be honest, the central claims of Christianity— Creator God, fallen nature, Redeemer, eternal salvation—were, by their very nature, things that were not and could not be challenged by science. We did not have that language then, and I am not sure it has been very helpful since, but we thought in Gould's (1999) terms that science and religion are different Magisteria.

As I said, that was the age of innocence. You can tell things have changed because today the most usual term for folk like us is, and is intended to be, the sneering "accommodationist." The implication is that those of us who think that science and religion can coexist harmoniously are in some sense selling out. The New Atheists have appeared on the scene, and in a classic example of what Freud called the "narcissism of small differences," while they may hate science deniers like the Creationists and (their more recent incarnation) the Intelligent Design theorists, they sure hate people like us—the independence types—a lot more. Of all of the British prime ministers of the twentieth century, I imagine none is more reviled or scorned than Neville Chamberlain who thought he could do a deal with Hitler—"peace in our time." Precisely for this reason, in The God Delusion (2006), Richard Dawkins slapped the Chamberlain label on me and others who think—whatever our personal beliefs about religion—that science and religion are chalk and cheese, things asking different questions and offering different answers.

I am not now going to spend time answering the specific charges. To be honest, I don't think that *The God Delusion* would get a passing grade

in either Philosophy 100 or Religion 100. And, I am not going to kick up about being called an accommodationist. In fact, just as members of the Religious Society of Friends now happily call themselves Quakers, a term also intended first to be one of abuse, I am rather proud of the label. However, I do think the change in atmosphere has rather altered the agenda for science and religion, and it is this that I do want to address. In particular, since independence or accommodationism is under attack, we need to go back and ask ourselves about the theoretical basis of our position. Why are science and religion independent? You might say that we should have done this 30 years ago, and I am inclined to agree with you. But now it is really pressing, so let us get on with the job.

But how? I have long argued that there is nothing mysterious about work in the science and religion field (Ruse 2001, 2005, 2010). While we may be dealing with unfamiliar problems—although they are more unfamiliar to us than to the great thinkers of the past—we have tools to deal with them. In particular, we have the tools of philosophy, especially of the philosophy of science, to throw light on the dark and fog. I intend to use these here. As I set out, let me remind you of William James's (1907) distinction between tough-minded thinkers and tender-minded thinkers—the reductionists versus the holists, and that sort of thing. I think too often we in the science and religion community, perhaps understandably put off by the materialistic crudity of people like Richard Dawkins and James Watson, move too quickly to the tender-minded side of things. I want nothing to do with this. I want to take on people on their own terms.

#### METAPHOR

Let's start at the beginning. One of the most important insights in the philosophy of science in the past 50 years has been of the all-pervasive role of metaphor in scientific thinking (Hesse 1966; Lakoff and Johnson 1980). Philosophers generally have long known this. Aristotle has an extended discussion of the topic. "Metaphor is a strange term either transferred from the genus and applied to the species or the species and applied to the genus or from one species to another or else by analogy" (*Poetics* 1457b.7, in Barnes 1984). We take a term from one area and apply it to another area, thus giving a whole new insight on things. "I'm feeling a bit low today." That doesn't mean that I am going around crouching. It does though conjure up thoughts of being sick and lying in bed and feeling miserable because of the illness that has brought you to such a state. "He clammed right up." That doesn't mean he turned into a shellfish. It does mean that like a shellfish that simply cannot be opened so you cannot find what is inside, he put up barriers—another metaphor!—to prevent you finding

out what is inside his mind—and there are those who think that "mind" is a metaphor and those who don't!

Science uses metaphors all of the time. Force, pressure, work, attraction, repulsion, spin, charm, big bang, black hole, affinity, natural selection, struggle for existence, tree of life, balance of nature, genetic landscape, developmental restraint, cell suicide, molecular chain, genetic code, arms race, selfish gene, continental plate, Oedipus complex—and you can keep going indefinitely. Can metaphors, should metaphors, be replaced by literal language? Some people have certainly thought so—Thomas Hobbes for instance. "In demonstration, in counsel, and all rigorous search of truth, judgment does all; except sometimes the understanding have need to be opened by some apt similitude; and then there is so much use of fancy. But for metaphors, they are in this case utterly excluded. For seeing they openly profess deceit, to admit them into counsel or reasoning were manifest folly" (Hobbes [1651] 1982, 8.8). A bit of a cheek, quite frankly, from someone whose main claim to fame is a book called *Leviathan*, where he is speaking not about whales but about the state. Generally, though opinion today is that almost certainly you cannot get rid of them, no more would you want to. Apart from anything else, they have huge heuristic force, pushing you to look for new angles and connections. Think for instance of the genetic code. As soon as molecular biologists thought of the molecules along the DNA chain as a code, the race was on to "crack" and indeed this was done, one of the great triumphs of mid-twentieth-century

Metaphor is here to stay, and in case people think I am now going back on my determination to be tough-minded, I doubt today you would find any serious philosopher of science who would deny this fact—certainly no one who takes seriously the actual fabric of science as opposed to technical points of structure or inference. The people cracking the genetic code were hardline reductionists. That was the whole point of the exercise. They were not into "top-down causation" and other fuzzy notions, whatever they might mean. So, moving on, the question is how are we to pick up on this fact and use it? We start with the truism that not all metaphors are equal. Some are more basic, bringing together subsidiary metaphors. Take for instance the already-hinted-at metaphor of being upstanding and the association with this of being good. It binds together a host of other metaphors: He is an upstanding man. He is a snake in the grass. (Genesis associations here also, obviously.) I am feeling really down today. Stand up, stand up, for Jesus! And, my favorite that I see on the Shriner's temple every day when I go to work: "A man never stands so tall as when he kneels to help a child."

We have these kinds of binding metaphors, known in the trade as "root" metaphors, in science. Take the organism as a product of design, opening up talk (not allowed in physics) of purposes or functions or (Aristotle again)

final causes. The eye is a telescope. It exists in order that we might see. The heart is a pump. Its purpose is to drive the blood around the body. His windpipe was constricted. He couldn't do what he needed to do, swallow. The human frame is not that different from that of other apes. We are built to the same design. The appendix no longer serves a purpose. It's pointless. Men's beards are by-products of the hormonal system. Speak for yourself, I have had a beard for over 50 years and let me tell you about functions—well, perhaps not in a family journal like *Zygon*. And, George Williams's (1966) favorite: The human male urogenital system is the worst case of design anyone has ever seen. A sentiment with which every male over 70 will agree.

## THE MACHINE METAPHOR

In the history of Western science, there have been two overriding, all-important root metaphors. Up to the Scientific Revolution it was that of an organism (Sedley 2008; Ruse 2013a). The world was seen as if organic. As it happens, Plato did think that the world is an organism; Aristotle was not so sure. But both agreed that thinking of the world, including the inanimate world, in terms of final causes was not just appropriate but needed. In Aristotle's physics for instance, things have their natural places, so when you drop something like a hammer, it falls to the ground "in order" to get as close to the center of the universe as it can. Rain falls in order to fertilize the crops. The eye works as it does in order that we can see.

Then after the Scientific Revolution, the root metaphor was that of a machine (Hall 1983). It is important to notice that this was not taken as a move to atheism. Machines have machine makers, and for the men of the sixteenth and seventeenth century there was no question but that this was the God of Christianity—at least the Creator God of Christianity. (Newton was one who had trouble with the divinity of Christ.) Robert Boyle, in my opinion a better philosopher of the revolution than Francis Bacon, was clear on this point. Running down the Aristotelians he wrote,

And methinks the different between their opinion of God's agency in the world, and that which I would propose, may be somewhat adumbrated by saying that they seem to imagine the world to be after the nature of a puppet, whose contrivance indeed may be very artificial, but yet is such that almost every particular motion the artificer is fain (by drawing sometimes one wire or string, sometimes another) to guide, and oftentimes overrule, the actions of the engine, whereas, according to us, it is like a rare clock, such as may be that at Strasbourg, where all things are so skillfully contrived that the engine being once set a-moving, all things proceed according to the artificer's first design, and the motions of the little statues that as such hours perform these or those motions do not require (like those of puppets) the peculiar interposing of the artificer or any intelligent agent employed

by him, but perform their functions on particular occasions by virtue of the general and primitive contrivance of the whole engine. (Boyle [1686] 1996, 12–13)

The trouble is that metaphors tend to have lives of their own. Having introduced the machine metaphor, pretty soon people found that thinking in terms of ends, of God's purposes, of final causes, really wasn't very helpful in science. Notoriously, Bacon ([1605] 1868) spoke of them as being like Vestal Virgins, decorative but sterile. Descartes particularly was withering, pointing out that apart from anything else we could never really be sure of God's intentions.

And so... we should not take any reasons for natural things from the ends which God or nature proposed for themselves in making them, since we should not glorify ourselves to such an extent that we think we are privy to their counsel. But considering him [God] as the efficient cause of all things, we shall see what it appears we must conclude by the light of reason he gave us, from those of his attributes he wanted us to have some notion of, about those effects of his which appear to our senses. (*Principles* 1, 28, quoted by Garber 1992, 273–74)

So the machine metaphor focused just on the ways that things worked, laws in motion, rather than purposes. God was not denied but He was pushed out of science. In the words of one of the greatest historians of the Scientific Revolution, God became a "retired engineer" (Dijksterhuis 1961, 491).

## **O**RGANISMS

All very nice, except there was the problem of organisms (Ruse 2003). They seem, well, they seem organic! We do want to talk in terms of design, of ends, of final causes. And notwithstanding Descartes' skepticism, we often know what these ends are for. Eyes are for seeing and noses are for smelling. True, there can be debate. For many years, no one was quite sure of the purpose of the plates along the backs of the dinosaur stegosaurus. But no one doubted that they did have a purpose.<sup>3</sup> At the end of the eighteenth century, the great philosopher Immanuel Kant ([1790] 1951) was so worried about organisms that—not wanting to bring God into the equation—he rather thought we can never make biology into a proper (meaning physics-like) science. Famously he said that there will never be a Newton of the blade of grass.

Charles Darwin cracked that one (Ruse 1999, 2013b). His theory of evolution through natural selection, entirely law-bound, as expounded in his *Origin of Species* (1859), showed how one could get design-like effects without design. And at once, for instance in the little book on orchids that he penned just after the *Origin*, he showed that he was now thinking of organisms as machines.

It then occurred to me that an insect in backing out of the flower would naturally push with some part of its body against the blunt and projecting upper end of the anther which overhangs the stigmatic surface. Accordingly I so held the brush that, whilst brushing upwards against the rostellum, I pushed against the blunt solid end of the anther...; this at once eased the pollinia, and they were withdrawn in an entire state. At last I understood the *mechanism* of the flower. (Darwin 1862, 100)

This kind of thinking persists down to the present.

We are survival machines, but "we" does not mean just people. It embraces all animals, plants, bacteria, and viruses.... We are all survival machines for the same kind of replicator—molecules called DNA—but there are many different ways of making a living in the world, and the replicators have built a vast range of machines to exploit them. A monkey is a machine which preserves genes up trees, a fish is a machine which preserves genes in the water; there is even a small worm which preserves genes in German beer mats. DNA works in mysterious ways. (Dawkins 1976, 22)

Note that in an important way the organic metaphor still persists in biology. After Darwin, organisms went on being organic! It still made sense, and at times could be very useful, to ask about purposes, about ends. Do male nipples have any function, or are they just a by-product of evolution that natural selection has found no reason to remove? But this does not preclude the overall application of the root metaphor of the machine. No more should it. Human machines do have ends. It is just that in physics final causes have been dropped because they serve no good purpose.

#### THE BRAIN

Finally in the last century and this, the machine metaphor, in the new discipline of cognitive science, moved on to the brain and the mind.

The computer scientist Marvin Minsky once described the human brain as a meat machine—no more, no less. It is, to be sure, an ugly phrase. But it is also a striking image, a compact expression of both the genuine scientific excitement and the rather gung-ho materialism that has tended to characterize the early years of cognitive science research. Mindware—our thoughts, feelings, hopes, fears, beliefs, and intellect—is cast as nothing but the operation of the biological brain, the meat machine in our head.

# Continuing:

But the "meat machine" phrase is intended, it should now be clear, to do more than hint at some rough analogy. For with regard to the very special class of machines known as computers, the claim is that the brain (and, by not unproblematic extension, the mind) actually is some such device.

It is not that the brain is somehow *like* a computer: everything is like something else in some respect or other. It is that neural tissues, synapses, cell assemblies, and all the rest are just nature's rather wet and sticky way of building a hunk of honest—to-God computing machinery. Mindware, it is then claimed, is found "in" the brain in just the way that software is found "in" the computing system that is running it. (Clark 2000, 7–8)

I am not sure that everyone is yet convinced with Minsky that the brain is a machine, but you can see how the machine metaphor has extended its scope. Of course, as the years have gone by, precisely what we mean by "machine" has been modified and changed. Back in the time of Boyle, a clockwork time piece was the exemplar. Then along came powered machines like the Newcomen Engine and after that machines running on electricity. And, now we have computers. Metaphors are not frozen in time, like mathematical concepts.

#### THE CONSTRAINTS OF METAPHOR

Grant the history. What does this all mean for us and our inquiry here? Again, it is not necessary to say anything that is not now commonplace in philosophy of science circles. Thomas Kuhn was very good on this point. Increasingly as the years went by, he identified his famous concept of the "paradigm" with that of metaphor (Kuhn 1962, 1977). It is all a matter of seeing things in a new way. And, one thing that Kuhn always stressed about paradigms/metaphors is that they work successfully because they make you focus. They throw new light on areas of inquiry and interest and they do this in part by cutting off questions in other areas. A paradigm/metaphor simply is silent about things outside its domain. I say my love is a rose. I am telling you that she is beautiful and fresh and much else. If I am being funny, I might also mean that she is a little bit prickly. I am not telling you whether she is an atheist or an evangelical, whether she is good at mathematics or has trouble with simple arithmetic. It is not that the metaphor is saying she isn't an atheist or an evangelical. It is not saying that this is not an important question. It is just that it is not asking about this at all.

The same in science. Edward O. Wilson (1980a,b, 1983a,b) has made much in his ant work of the division of labor. To understand complex caste systems, he speaks in terms of each organism doing what it is fitted for—soldiers for nest defense, workers for foraging, queens for egg laying, and so forth. This has been a very profitable approach to difficult questions. He says nothing about other important questions, for instance about the relationships between the hymenoptera, about whether ants and bees and wasps all evolved independently or whether one group came from others. It is not that he doesn't care about these questions. It is just that he is not asking about them.

## QUESTIONS NOT ASKED; ANSWERS NOT GIVEN

Apply this all-important fact about metaphor to the root metaphor of the machine. <sup>4</sup> What we expect is that modern science, that is science since the Scientific Revolution, will simply not ask certain questions. It is not that the questions are unimportant. They may be very significant. It is just that science under the machine metaphor will remain silent on these questions. So now the philosophical question becomes: What questions do I suggest that science under the machine metaphor will not ask? I should make it clear that I don't think there is a canonical set fixed for all time, right now. Apart from anything else, as pointed out, the notion of a machine evolves and with this some questions may become answerable or not. But for now I will throw out the following four candidates.

## 1. Why is there something rather than nothing?

Heidegger (1959) speaks of this as the fundamental question of philosophy. Whether this be so or not, it is not one answered by the machine metaphor. Of course you can ask questions about what came before the Big Bang and that sort of thing. But that is not quite what the fundamental question is asking. It wants to know the answer to the very fact of existence. The machine metaphor takes this for granted. You take your plastic and your steel and your copper and your aluminum and you build your automobile.

# 2. What are the foundations of morality?

This is the Humean (Hume [1739] 1940) problem that you cannot go from an "is" to an "ought." You cannot go from the way that the world is—which is what science under the machine metaphor tries to describe and understand—to the way that the world ought to be—which is the moral question. An automobile takes me quickly to the restaurant for lunch. Should I drive it or not? I will save my time but cause pollution. What is the right decision? Science cannot tell me.

# 3. What is the nature of consciousness?

Leibniz spotted this one. Talk about machines is talk about material things—today including electricity and that sort of thing. It is not to talk about thinking.

One is obliged to admit that *perception* and what depends upon it is *inexplicable on mechanical principles*, that is, by figures and motions. In imagining that there is a machine whose construction would enable it to think, to sense, and to have perception, one could conceive it enlarged while retaining the same proportions, so that one could enter into it, just like into a windmill. Supposing this, one should, when visiting within it, find only parts pushing

one another, and never anything by which to explain a perception. Thus it is in the simple substance, and not in the composite or in the machine, that one must look for perception. (Leibniz [1714] 1973, section 17)

A machine is a material object and that almost by definition is not a thinking entity. This is not to say that machines cannot think. If the cognitive scientists are correct, they can. It is rather that thinking in machine terms alone does not explain thinking. To put the matter another way, the only satisfactory solution to the mind-body problem is Cartesian dualism—res extensa and res cogitans—and that has to be false. I don't think the problem can be solved, and I am certain it cannot be solved by science.<sup>5</sup>

## 4. What is the purpose of it all?

The Nobel laureate Steven Weinberg (1992) says that the more the universe seems comprehensible, the more it seems pointless. Why am I not surprised? We have seen that the way that the machine metaphor is used eschews any answer to this question. So on it, science remains silent.

Some people, Wittgenstein (1965) for example, think that the fundamental question—why is there something rather than nothing?—is not a genuine one, but I do not think our inability to answer it makes it not genuine. Although let me qualify by saying I do not think our inability to answer it through science makes it not genuine. I feel the same way about the other questions. As it happens, I personally think that morality is a matter of emotions brought on by the demands of natural selection. But at most, that is to explain away foundations, not to justify them. Because we cannot solve the mind—body problem does not mean that it is not a genuine question. Or, because we have no answer to meaning, that does not mean it is illicit to ask about them. We have to get away from the mindset that because science cannot answer questions they are not real or important. That is the whole point of this discussion.

#### **SKEPTICISM**

If science does not give answers what then? Perhaps Wittgenstein (1923) is right in this respect. "Whereof one cannot speak, thereof one must be silent." Or let me modify this because being silent is not something I have ever been particularly good at. Perhaps we have to make a virtue out of modesty and simply say that we do not know. We are in good company in doing this. The eminent population geneticist J. B. S. Haldane said: "My own suspicion is that the universe is not only queerer than we suppose, but queerer than we can suppose" (Haldane 1927, 286). Recently, Richard Dawkins made the same point: "Modern physics teaches us that there is more to truth than meets the eye; or than meets the all too limited

human mind, evolved as it was to cope with medium-sized objects moving at medium speeds through medium distances in Africa" (Dawkins 2003, 19). We now accept that there are vital aspects of quantum mechanics about which we cannot ask and must remain ignorant. Perhaps this applies also to the four questions asked earlier. For me, the wonder is that we can find out so much about our world, not that we cannot find out everything.

## CHRISTIAN ANSWERS

There is no great secret about what I am going to say next. I did not choose my four questions deliberately with the next move in mind. But obviously, as I was choosing them, I realized what the next move would be. The questions are questions that go right to the heart of the Christian religion (McGrath 1997; Davies 2004). They do not cover all of the religion, obviously. They say nothing about the Trinity. But they do ask about matters central to the life and thought of the believer. And moreover, thanks to Christianity, they are questions to which the believer thinks that he or she has the answer. Why is there something rather than nothing? Because God, a being who exists necessarily, created heaven and earth as an act of divine goodness. For no other reason, nor is other reason needed. What are the foundations of morality? They are grounded in the will of God. They are that which He had decreed we should do. What is the nature of mind? Being created in the image of God. What is the point of it all? That we should enjoy eternal life with God, our Father.

Some general and specific points of qualification are needed. What the Christian cannot do is offer quasi-scientific answers. It is one thing to say that God created freely out of love. That is not a scientific answer. It is another thing to identify the Creation with the Big Bang or some such thing, as one of the popes did in the middle of the last century. That is a scientific answer and illicit. If there is something behind the Big Bang in a temporal sense, it is not God. Apart from anything else, He is outside time and space. The same goes for other answers. One is not solving the mind-body problem in a way that the cognitive scientist *qua* cognitive scientist would find acceptable. One is offering a different kind of answer entirely.

This said, I am arguing for the possibility of a much stronger sense of religion than some of my fellow accommodationists would allow. Steven Jay Gould (1999), for example, thought that (somewhat akin to Matthew Arnold) religion could only legitimately offer up moral sentiments. He did not allow ontological claims within the Religion Magisterium and was rather mean toward Arthur Peacocke when he referred favorably to miracles. I disagree. Indeed, I offer up the possibility of an ontological existence stronger than I myself accept when I allow the legitimacy of a

Creator God. I don't think this claim is just warm sentiment—be nice to people and have a happy day. I think it is open for the Christian to make the case for the God of Augustine, of Anselm, of Aquinas. You don't get much more real than that.

The Christian must also be prepared to expand on the answers. In the case of morality for instance, the Euthyphro problem comes at once to mind. Can God's will decree anything? Could it be morally obligatory to use yellow markers on library books on Fridays? Obviously not! But then it seems as though God's will is subject to a higher, independent authority. Not necessarily so if you spell things out in a natural-law fashion, as, following Aristotle (and in respects anticipating Darwin), Aquinas does in full (Quinn 1978). God has created us and therefore expects us to go along with this creation. We are to do what is natural. It is natural to love children and to look to their welfare. That is what it is moral for us to do. Having children and abusing them is unnatural and immoral. Of course, there will be discussions about what is natural. Is gay love natural? Aquinas would have said not. We now see that bonds between human beings, creating happiness and releasing energies for full and giving lives, is natural and hence good. But without trivializing them, these are the technical details not the fundamentals.

Note finally, and I will pull in the discussion after this, I am not saying that the Christian's position is beyond criticism (Ruse 2015). I personally have a great deal of trouble with the notion of necessary beings, which God has to be if we are to stop the infinite regress of "What caused God?" I am also not too sure about eternal salvation. Is it an infinity of weeks on Star Island? I could tolerate that, so long as I am allowed once in a while to take the ferry to the mainland and go off down to the Metropolitan Opera. More seriously—although could one be more serious than about Star Island and the Met—there are all sorts of well-aired philosophical problems with human eternal existence. For example, can there be continuity between the Ralph Wendell Burhoe, the founder of IRAS, who died a few years back, and the Ralph Wendell Burhoe who is undoubtedly telling God about why it is more appropriate to say grace to natural selection than to Him—as I swear he did when he invited me to lunch one day many years ago. And, what does eternity mean anyway? Are we to be outside space and time, like God? Am I to be forever suspended at that wonderful thrilling moment, when Lucia di Lammermoor, having on her wedding night bumped off her rather boring husband, appears at the top of the staircase in her white gown, absolutely drenched in blood, about to launch off into the most thrilling music ever written for the voice? Or, if it is hell to which I am destined, am I about to hear *Parsifal* for the fifteen-millionth time, without even a bathroom break?

## HAVING MY CAKE AND EATING THEIRS

So despite the worries and sneers of the New Atheists, the position I am putting forward is far from one that gives way cravenly to the religious. I am fully prepared to criticize religion, and I do, but not on inadequate grounds. And, thinking that science unaided refutes religion is on inadequate grounds. Conversely, I think I have opened the door for the religious person—the very traditional Christian—to argue for his or her God and the implications without fear that I am allowing only a fairy story to get us to be nice to each other. Were I arguing that way, I would not be promoting accommodationism. I would be cheating.

And so, I draw to the end of what I want to say. I shall not be terribly upset (and certainly not surprised) if you do not agree with me in whole or in part. All I ask of you is to appreciate the need for some kind of position as I am advocating—or to provide an argument as to why we don't need the kind of position I am advocating. I ask you if you don't like my solution, to provide one in its stead. And, to do as I have tried to do—use basic philosophy and history of science, and don't get seduced into tender-minded thinking. It is not needed and it never really works.

## ACKNOWLEDGMENTS

This essay is based on the talk I gave at the 2014 IRAS conference on Star Island. For me, it was as much a question of looking back and giving thanks for so much given, as it was a question of looking forward and so much I should give. I dedicate this essay to all of my friends in IRAS, especially those no longer with us. I have always said that the weeks on Star Island take me back to the Quaker youth camps of my childhood, and I can think of no higher praise.

#### Notes

This paper was presented at the 2014 Summer Conference of the Institute for Religion in an Age of Science, "The Future of Science and Religion in a Globalizing World," Star Island, New Hampshire, August 2–9, 2014.

1. In But Is It Science? The Philosophical Question in the Creation/Evolution Debate, the first edition (Ruse 1988), I introduce the state of play as it was 30-plus years ago. In the second edition of But Is It Science? (Pennock and Ruse 2008), coedited with Robert Pennock, we bring the story up to the first decade of this century.

- 2. I will name no names. But as David Burwasser used to say at IRAS meetings on Star Island, "you know who you are." I am not just poking fun at good friends. If we are going to make a sound case for accommodationism—certainly if we are going to make a politically attractive case for accommodationism—we need to be as on-side in our naturalistic thinking about science as the most strident of our critics. No one is going to buy our case if there are whiffs of neo-vitalism.
  - 3. Today, we are inclined to think they were for heat control.
- 4. I am fully aware that some people today, enthusiasts for the Gaia hypothesis for example, think that the organic metaphor should still be the dominant root metaphor. I beg to differ; but even if one does go with the organic metaphor, since it is itself a metaphor it too will have

unasked questions, answers not given. There will be some differences of emphasis, but I think we would end up in the same position as for the machine metaphor.

5. I am what is known in the trade as a "new mysterian" following McGinn (2000).

6. Am I alone in having uncomfortable sensations of *déjà vu* when someone says: "Children should be seen and not heard"? Or "Silent waters run deep"? My experience of silent waters is that they are sluggish and boring.

#### REFERENCES

Bacon, Francis. [1605] 1868. The Advancement of Learning. Oxford: Clarendon Press.

Barbour, Ian. 1990. Religion in an Age of Science. New York: Harper and Row.

Barnes, Jonathan, ed. 1984. The Complete Works of Aristotle. Princeton, NJ: Princeton University Press.

Boyle, Robert. [1686] 1996. A Free Enquiry into the Vulgarly Received Notion of Nature, ed. E. B. Davis and M. Hunter. Cambridge: Cambridge University Press.

Clark, Andrew. 2000. Mindware: An Introduction to the Philosophy of Cognitive Science. New York: Oxford University Press.

Darwin, Charles. 1859. On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life. London: John Murray.

——. 1862. On the Various Contrivances by Which British and Foreign Orchids Are Fertilized by Insects, and on the Good Effects of Intercrossing. London: John Murray.

Davies, Brian. 2004. An Introduction to the Philosophy of Religion. Third edition. Oxford: Oxford University Press.

Dawkins, Richard. 1976. The Selfish Gene. Oxford: Oxford University Press.

———. 2003. A Devil's Chaplain: Reflections on Hope, Lies, Science and Love. Boston: Houghton Mifflin.

Dijksterhuis, Eduard J. 1961. *The Mechanization of the World Picture*. Oxford: Oxford University Press.

Garber, Daniel. 1992. *Descartes' Metaphysical Physics*. Chicago: University of Chicago Press. Gould, Steven Jay. 1999. *Rocks of Ages: Science and Religion in the Fullness of Life*. New York: Ballantine.

Haldane, John B. S. 1927. Possible Worlds and Other Essays. London: Chatto and Windus.

Hall, A. Rupert. 1983. The Revolution in Science, 1500-1750. London: Longman.

Heidegger, Martin. 1959. An Introduction to Metaphysics. New Haven, CT: Yale University Press.Hesse, Mary. 1966. Models and Analogies in Science. Notre Dame, IN: University of Notre Dame Press.

Hobbes, Thomas. [1651] 1982. Leviathan. Harmondsworth, UK: Penguin.

Hume, David. [1739] 1940. A Treatise of Human Nature. Oxford: Oxford University Press.

James, William. 1907. Pragmatism: A New Name for Some Old Ways of Thinking. New York: Longmans, Green.

Kant, Immanuel. [1790] 1951. Critique of Judgment. New York: Hafner.

Kuhn, Thomas. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

——. 1977. The Essential Tension: Selected Studies in Scientific Tradition and Change. Chicago: University of Chicago Press.

Lakoff, George, and Mark Johnson. 1980. Metaphors We Live By. Chicago: University of Chicago Press.

Leibniz, Georg F. W. [1714] 1973. "Principles of Nature and of Grace Founded upon Reason." In Leibniz: Philosophical Writings, ed. G. H. R. Parkinson, 195–204. London: J. M. Dent.

McGinn, Colin. 2000. The Mysterious Flame: Conscious Minds in a Material World. New York: Basic Books.

McGrath, Alister E. 1997. Christian Theology: An Introduction. Second Edition. Oxford: Blackwell.

Pennock, Robert, and Michael Ruse, eds. 2008. But Is It Science? The Philosophical Question in the Creation/Evolution Controversy. Second Edition. Buffalo, NY: Prometheus.

Quinn, Philip L. 1978. Divine Commands and Moral Requirements. Oxford: Clarendon Press.

Ruse, Michael, ed. 1988. But Is It Science? The Philosophical Question in the Creation/Evolution Controversy. Buffalo, NY: Prometheus. -. 1999. The Darwinian Revolution: Science Red in Tooth and Claw. Second Edition. Chicago: University of Chicago Press. -. 2001. Can a Darwinian Be a Christian? The Relationship between Science and Religion. Cambridge: Cambridge University Press. -. 2003. Darwin and Design: Does Evolution Have a Purpose? Cambridge, MA: Harvard University Press. -. 2005. The Evolution-Creation Struggle. Cambridge, MA: Harvard University Press. -. 2010. Science and Spirituality: Making Room for Faith in the Age of Science. Cambridge: Cambridge University Press. -, ed. 2013a. The Cambridge Companion of Darwin and Evolutionary Thought. Cambridge: Cambridge University Press. -. 2013b. *The Gaia Hypothesis: Science on a Pagan Planet*. Chicago: University of Chicago -. 2015. Atheism: What Everyone Needs to Know. Oxford: Oxford University Press. Sedley, David. 2008. Creationism and its Critics in Antiquity. Berkeley: University of California Weinberg, Steven. 1992. Dreams of a Final Theory: The Search for the Fundamental Laws of Nature. New York: Pantheon. Williams, George C. 1966. Adaptation and Natural Selection. Princeton, NJ: Princeton University Wilson, Edward O. 1980a. "Caste and Division of Labor in Leaf Cutter Ants (hymenoptera formicidae, Atta) I The Overall Pattern in Atta Sexdens." Behavioral Ecology and Sociobiology 7:143-56. . 1980b. "Caste and Division of Labor in Leaf Cutter Ants (hymenoptera formicidae, Atta). II The Ergonomic Optimization of Leaf Cutting." Behavioral Ecology and Sociobiology 7:157-65. -. 1983a. "Caste and Division of Labor in Leaf Cutter Ants (hymenoptera formicidae, Atta) III. Ergonomic Resiliency in Foraging by Atta Cephalotes." Behavioral Ecology and Sociobiology 14:47–54. -. 1983b. "Caste and Division of Labor in Leaf Cutter Ants (hymenoptera formicidae, Atta) IV. Colony Ontogeny of Atta Cephalotes." Behavioral Ecology and Sociobiology

Wittgenstein, Ludwig. 1923. Tractatus Logico-Philosophicus. London: Routledge & Kegan Paul.

-. 1965. "A Lecture on Ethics." The Philosophical Review 74:3-12.