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Science and Religion

Sermon preached by the Rev. Dr. Joseph S. Pagano on
 The Eighth Sunday after the Epiphany, February 27, 2011

Our topic for today is science and religion. Of the top three topics suggested for this sermon series this was the second most popular. People asked things like: *Is there a conflict between science and religion?* And: *Can faith and reason be reconciled?* There is an enormous amount of literature on the relationship between science and religion, and, in the short span of a sermon, we can only scratch the surface. In order to frame the material in a manageable way, and to try to give you some sense of the various options on offer, I will use an approach found in Ian Barbour's book *When Science Meets Religion*. Barbour, who did his Ph.D. in physics at the University of Chicago and who taught for many years at Carelton College, develops a fourfold typology for understanding the relationship between science and religion, which has become the standard way scholars try to sort out their complex relationship. Of course, scholars being what they are, that is, hairsplitters and nitpickers, some argue that Barbour's typology needs to be modified or expanded or otherwise amended. But, for our purposes today, I think we can simply acknowledge that the hairsplitting and nitpicking exists and is important, and then we can put it to one side. Barbour's typology remains the baseline approach to the relationship between science and religion, it helpfully frames the discussion, and it has the added benefit of being briefer than others!

The first type of relationship between science and religion is *conflict*, and the name pretty much says it all. This occurs when one discipline, either science or religion, threatens to take over the legitimate concerns of the other. Barbour's paradigm case for this type of relationship between science and religion is the debate between biblical literalism and scientific materialism. Barbour writes, "Biblical literalists believe that the theory of evolution conflicts with religious faith. Atheistic scientists claim that scientific evidence for evolution is incompatible with any form of theism. The two groups agree in asserting that a person cannot believe in both God and evolution, though they disagree as to which they will accept. For both of them, science and religion are enemies."¹

An interesting thing about the conflict theory is that it is relatively recent. Scholars point out that the conflict theory between science and religion is an idea that was popularized in the 19th century in works like John William Draper's *History of the Conflict between Religion and Science* (1874) and Andrew Dickson White's *A History of the Warfare of Science and Theology*

¹ Ian Barbour, *When Science Meets Religion* (San Francisco: HarperOne, 2000), p. 2

in *Christendom* (1896). More recent research into the history of science presents a more nuanced understanding, which shows that Judaism, Christianity, and Islam have often nurtured and encouraged scientific research, and, at other times, have co-existed with science without much tension. Scholars now speak of the “Complexity Thesis,” in which the long history of science reveals numerous and complex combinations of scientific and religious ideas. The conflict theory is now seen as distorted and incomplete. But, in last few years, it has caught the attention of the wider public through the writings of the so-called new atheists. We see this, for example, in Richard Dawkins’ book *The God Delusion* where he claims that one has to choose between a theological or a Darwinian explanation. It’s either-or, one or the other. And as one might expect, in this type of either-or approach, the rhetoric gets rather heated. For Dawkins, belief in God in particular and religion in general are not only delusions, but also dangerous delusions that lead to violence and evil. For Dawkins we would be better off if we got rid of religious belief and followed the sure path of the scientific method.

Needless to say, there are a lot of problems with Dawkins’ argument, too many to possibly deal with here. Suffice it to say, that many of the responses to Dawkins have pointed out that he is essentially attacking a straw man, a type of religious belief that few serious Jews, Christians, or Muslims would defend in the first place. Here is what John Haught, Professor of Theology at Georgetown, says, “Criticizing theistic faiths without taking into account the work of theologians such as Karl Barth or Paul Tillich (and many others) is like trying to explain the natural world while leaving out any mention of modern science. In their critiques of the God hypothesis, the new atheists demonstrate that they have only the shallowest, if any, acquaintance with any major theologian or theological tradition. Nor do they suffer the slightest embarrassment at the fact that they have chosen to topple a deity whose existence most theologians and a very large number of other Christians, Muslims, and Jews would have no interest in defending anyway. . . . The snapshot of God that Dawkins flashes in *The God Delusion* is a caricature that has long been offensive to theology. It seems to come almost exclusively from visiting the campsites and Websites of creationists and ID defenders. Moreover, by insisting that the God hypothesis is subject to being confirmed or falsified only by scientific method, Dawkins has set up a problem that has nothing whatsoever to do with either science or theology. Any deity whose existence could be decided by something as cheap as ‘evidence’ in Harris’s or Dawkins’s vulgar understanding of that term could never command anyone’s worship. So by avoiding theology altogether, the new atheism has once again shown itself to be irrelevant except to those who share its emaciated understanding of God.”² Or as Terry Eagleton, Professor of English at the University of Lancaster, puts it, “Imagine someone holding forth on biology whose only knowledge of the subject is the *Book of British Birds*, and you have a rough idea of what it feels like to read Richard Dawkins on theology. Card-carrying rationalists like Dawkins, who is the nearest thing to a professional atheist we have had since Bertrand Russell, are in one sense the least well-equipped to understand what they castigate, since they don’t believe there is anything there to be understood, or at least anything worth understanding. This is why they invariably come up with vulgar caricatures of religious faith that would make a first-year theology student wince. The more they detest religion, the more ill-informed their criticisms of it tend to be. If they were asked to pass judgment on phenomenology

² John F. Haught, *God and the New Atheism: A Critical Response to Dawkins, Harris, and Hitchens* (Louisville: Westminster John Knox Press, 2008), p. 44.

or the geopolitics of South Asia, they would no doubt bone up on the question as assiduously as they could. When it comes to theology, however, any shoddy old travesty will pass muster.”³

Well, you get the point. The first type of relationship between science and theology is about conflict. I think it fair to say that the writings of Richard Dawkins and the other new atheists fall under this type. And, as many critics have pointed out, they often appear to be the mirror image of the creationists they seek to criticize. But rather than spend more time on the back and forth between the new atheists and their critics, I think it is more helpful and more fruitful to realize that there are other and probably better ways of understanding the relationship between science and religion.

Barbour’s second type of relationship between science and religion is called *independence*. This approach treats science and theology as quite separate realms of enquiry in which each discipline is free to pursue its own way without reference to or hindrance from the other. In this type, science and religion are totally independent and autonomous ways of knowing the world. Science deals with the natural world, and religion deals with values and meaning. Barbour writes, “science and religion are strangers who can coexist as long as they keep a safe distance from each other. According to this view, there should be no conflict because science and religion refer to differing domains of life or aspects of reality. Moreover, scientific and religious assertions are two kinds of language that do not compete because they serve completely different functions in human life. They answer contrasting questions. Science asks how things work and deals with objective facts; religion deals with values and ultimate meaning.”⁴

An example of this type is found the late Stephen Jay Gould, Professor of Paleontology and Evolutionary Biology at Harvard, who said that science and religion are “non-overlapping magisteria,” which is a fancy way of saying that science and religion are different domains of teaching and discourse. He says, the “magisterium of science covers the empirical realm: what the universe is made of (fact) and why does it work in this way (theory). The magisterium of religion extends over questions of ultimate meaning and moral value. These two magisteria do not overlap, nor do they encompass all inquiry (consider, for example, the magisterium of art and the meaning of beauty).”⁵ Gould calls this “a blessedly simple and entirely conventional resolution to an issue so laden with emotion and the burden of history that a clear path usually becomes overgrown by a tangle of contention and confusion. I speak of the supposed conflict between science and religion, a debate that exists only in people’s minds and social practices, not in the logic or proper utility of these entirely different, and equally vital, subjects.”⁶

Barbour’s third type for understanding the relation between science and religion is called *dialogue*. Here, science and religion are also seen as independent enterprises, but they do have points of contact. One point of contact between science and religion is in regard to method: both science and religion are concerned with coherence, comprehensiveness and fruitfulness. A second point of contact occurs when science raises at its boundaries questions that it cannot answer itself: questions like “Why is there something rather than nothing?” and “How is it that

³ Terry Eagleton, “Lunging, Flailing, Mispunching,” in *The London Review of Books* Vol. 28 No. 20 (October 19, 2006), pp. 32-34.

⁴ Ian Barbour, *When Science Meets Religion*, p. 2

⁵ Stephen Jay Gould, *Rock of Ages: Science and Religion in the Fullness of Life* (New York: Ballantine Books, 1999), p. 6

⁶ *Ibid.*, p. 3

the world is intelligible to the human mind?” At these points of contact, science and religion can engage each other in a fruitful and mutually beneficial dialogue.

An example of this type of dialogue is found in John Polkinghorne, former Cambridge Professor of Mathematical Physics and an Anglican priest, who reflects on the astonishing experience of the universe being so deeply intelligible to us. Why is this so? Why is it that mathematics, which is a product of the human mind, unlocks the secrets of the universe? Science operates on the assumption that the world is intelligible to us, but it can't answer the question of why this is so. Theism, however, can provide a response which is both coherent and persuasive. Polkinghorne says, “If the world is the creation of the rational God, and if we are creatures made in the divine image, then it is entirely understandable that there is an order in the universe that is deeply accessible to our minds.”⁷ This isn't a proof of the existence of God, but rather a fruitful and mutually beneficial dialogue between science and religion.

The fourth and final type Barbour calls *integration*. In this category, scientists and theologians seek a more direct relationship between the content of science and the content of religion. This approach seeks an integration or synthesis of religion and science. Barbour writes, “a more systematic and extensive kind of partnership between science and religion occurs among those who seek a closer integration of the two disciplines. The long tradition of natural theology has sought in nature a proof (or at least suggestive evidence) of the existence of God. Recently astronomers have argued that the physical constants in the early universe appear to be fine-tuned as if by design. If the expansion rate one second after the Big Bang had been ever so slightly smaller, the universe would have collapsed before the chemical elements needed for life could have formed; if the expansion rate had been slightly higher, the evolution of life could not have occurred. Other authors start from a particular religious tradition and argue that some of its religious beliefs . . . should be reformulated in the light of science.”⁸

I think we see an example of this in Francis Collins, who headed up the human genome project, and his explanation of Theistic Evolution. Collins claims that Theistic Evolution is based upon the following premises: “1. The universe came into being out of nothingness, approximately 14 billion years ago. 2. Despite massive improbabilities, the properties of the universe appear to have been precisely tuned for life. 3. While the precise mechanism of the origin of life on earth remains unknown, once life arose, the process of evolution and natural selection permitted the development of biological diversity and complexity over very long periods of time. 4. Once evolution got underway, no special supernatural intervention was required. 5. Humans are part of this process, sharing a common ancestor with the great apes. 6. But humans are also unique in ways that defy evolutionary explanation and point to our spiritual nature. This includes the existence of the Moral Law (the knowledge of right and wrong) and the search for God that characterizes all human cultures throughout history.”⁹

Collins claims that one can accept these premises and also believe in a God who created the universe and who established the laws that govern it. Collins wants to offer a synthesis between everything science teaches us about the natural world and belief in a creator God who chose the elegant mechanism of evolution to create a universe with living creatures, and in particular, a living creature who would have “intelligence, a knowledge of right and wrong, free

⁷ John Polkinghorne, *Science and Theology: An Introduction* (Minneapolis: Fortress, 1998), p. 73.

⁸ Ian Barbour, *When Science Meets Religion*, p. 3

⁹ Francis S. Collins, *The Language of God: A Scientist Presents Evidence for Belief* (New York: Free Press, 2006), p. 200.

will, and a desire to seek fellowship with Him.”¹⁰ Theistic Evolution is not a logical argument that proves God’s existence. It is still a matter of faith. But, as Collins says, “this synthesis has provided for legions of scientist-believers a satisfying, consistent, enriching perspective that allows both the scientific and spiritual worldviews to coexist happily within us. This perspective makes it possible for the scientist-believer to be intellectually fulfilled and spiritually alive, both worshipping God and using the tools of science to uncover some of the awesome mysteries of His creation.”¹¹

So there we have it, Barbour’s fourfold typology for understanding the relation between science and religion: *conflict*, *independence*, *dialogue*, and *integration*. One of these types may be more appealing to you than the others. And if we return to our initial question - “Is there a conflict between science and religion?” – then, I think, our answer must be, “it depends.” If you take the view of folks in the first type, *conflict*, then the answer is “yes, religion and science conflict with one another.” But, if you take one of the other types, *independence*, *dialogue*, or *integration*, then the answer is “no, science and religion do not need to conflict and one can reconcile the claims of science and religion.” As I’ve said before, being a good Episcopalian I don’t like having to choose. However, as a good Episcopalian I also value our great Anglican tradition of trying to discern the nature and purposes of God not only in the Book of Scripture, but also in the Book of Nature. We have a great tradition of scientist-theologians in the Anglican Church, John Polkinghorne being one mentioned this morning. And in today’s Gospel lesson, we hear Our Lord telling his disciples to look at the birds of the air and to consider the lilies of the field. Now I’m not claiming that Jesus was talking about modern science. But he was saying that these things in nature can tell us something about the nature and purposes of God, which we might characterize as a cosmic generosity on the part of the Creator. And I don’t think it would be too much of a stretch to see a certain resonance in Jesus’ discernment of God’s generosity in the birds of the air and the lilies of the field and the astronomers mentioned by Barbour who see a universe seemingly fine-tuned for the emergence of life. As Keith Ward, Professor of Divinity at Oxford, says, the universe “seems to work in accordance with fairly simple principles which are elegant and beautiful, mathematically speaking. It is an extremely complex, mathematically elegant totality. Moreover, by the working of the laws of physics it has produced out of itself beings which are able to understand their own nature. In human beings ... the universe becomes self-conscious. Almost inconceivably complex bundles of atoms and molecules generate the amazing capacity to know and marvel at their own nature, and even to change it. The universe is not only beautiful; it is capable of knowing that it is, of admiring that beauty, and of creating new forms of beauty out of itself.”¹² So it seems to me that, even today, our careful consideration of the birds of the air and the lilies of the field, of the formation of the galaxies and the intricacies of the butterfly’s wing, and of conscious human beings who can understand, communicate, love and create can also be occasions of discerning the power and purposes and majesty of our good and generous God.

¹⁰ Ibid., p. 201

¹¹ Ibid.

¹² Keith Ward, *Christianity: A Short Introduction* (Oxford: Oneworld, 2000), pp. 7-8