

Science and Religion: Distinct Patches of the Quilt of Wisdom

- Roget Vettukallel'

On November 17, 2002, while addressing a religious gathering, Dr. A.P.J. Abdul Kalam, the former President of India and a renowned nuclear scientist, said: “Both science and religion should contribute towards human progress - science materially, and religion spiritually.” The President’s words seem to assign two distinct and independent territories to science and religion. Stephen Jay Gould’s *Rocks of Ages: Science and Religion in the Fullness of Life*¹ echoes a similar view. The late Gould, a trenchant critic of creationism and a widely admired popularizer of evolutionary science, discusses the problem of the relationship between two “Rocks of ages,” Science and Religion.

In the past, there have been several different ways of viewing the relationship between science and religion: the conflict view that sees science and religion locking horns in an eternal war; the segregationist view that sees them as totally separate, each going in its own way; and the complementary view that sees one complementing the other. Gould claims to present a new way of looking at the science-religion relationship – a way that transcends the language of ‘either or,’ ‘black and white,’ ‘hot and cold,’ ‘winter and summer.’

Rocks of Ages is truly delightful. Writing with bracing intelligence and elegant clarity, Gould sheds new light on a dilemma that has crept into our minds since the Renaissance. With a carefully crafted language and an incisive and witty style, the book is full of interesting historical stories and facts, from insights into the struggle of Galileo, the famous ‘Scopes’ Trial, the flat-earth controversy, to wonderful anecdotes about Darwin and his friends and their times. The main thread that runs through

the book is, of course, the NOMA thesis - an acronym, which stands for the Non-Overlapping Magisterium - a principle to explain the relationship between science and religion. Gould rightly admits that his thesis is “nothing original” and “follows a strong consensus accepted for decades by leading scientific and religious thinkers alike.”

Understanding the NOMA Principle

NOMA stands for non-overlapping magisterium. A magisterium, according to Gould, “is a domain where one form of teaching holds the appropriate tools for meaningful discourse and resolution”(p. 5). The two magisteriums that fail to overlap are science and religion, and Gould declares the NOMA thesis to be “intellectually sound,” “eminently practical” and “laudable.” The NOMA principle is a solution to the false conflict between science and religion. In other words, NOMA is a principled means of avoiding unnecessary conflict between theologians and scientists. In Gould’s view there is no reason for any conflict because the two disciplines do not overlap. He writes, “NOMA is a simple, humane, rational, and altogether conventional argument for mutual respect, based on non-overlapping subject matter, between two components of wisdom in a full human life: our drive to understand the factual character of nature (the magisterium of science), and our need to define meaning in our lives and a moral basis for our actions (the magisterium of religion)” (p. 175).

To Gould, both the subject matter and the method of inquiry of science and religion are intrinsically and qualitatively different, the magisterium of science covers the empirical realm - what is the universe made of (fact) and why does it work this way (theory). The magisterium of religion extends over questions of ultimate meaning and moral value. “Science gets the age of rocks, and religion the rock of ages; science studies how the heavens go, religion how to go to heaven”(p. 6). Gould says, “Science tries to document the factual character of the natural world, and to develop theories that coordinate and explain these facts. Religion, on the other hand, operates in the equally important, but utterly different, realm of human purposes, meanings, and values - subjects that the factual domain of science might illuminate, but can never resolve. Similarly, while scientists must operate with ethical principles, some

specific to their practice, the validity of these principles can never be inferred from the factual discoveries of science” (pp. 4-5).

For Gould, who confesses to be an agnostic in the wise sense of T. H. Huxley, the ‘bulldog’ of evolution, the NOMA thesis is the best rational position that one can have. He frequently appeals to “people of goodwill” to accept the NOMA principle as the wisdom of the times - seeing science and religion at peace, working together to enrich our practical and ethical lives. “We must live the fullness of a complete life in many mansions of a neighborhood that would delight any modern advocate of diversity”(p. 4).

Borrowing Gould’s own metaphor would better describe the scenario. Imagine a beautiful *quilt*. Science is one distinct patch on the quilt; religion is another, and there are others as well. All the patches – each separate and with a distinctiveness and coherence of its own - together create a beautiful quilt called wisdom. Reality or truth is multi-dimensional. Religion looks from a certain angle and science from another. No single look is able to comprehend the totality. Life is just too complex for one way of knowing to capture the whole truth. The wisdom lies in realizing the limitations of each individual viewpoint. Science and religion, though distinct, are related to each other just as two patches of quilt are related to one another.

Doubting Thomas or Doubting Scientist?

In the science and religion enterprise, Gould seems to be suggesting a compartmentalized approach: *independence* and *dialogue*. Religion has no right to comment on the world of empirical facts and scientific investigation, and science has no right to comment on moral and spiritual issues. Thus Gould recognizes that complete human wisdom - the “fullness of life” - consists of both the scientific and the spiritual, “each covering a central facet of human existence,” but without a common-shared territory or common platform. Gould’s schema is based on the idea that science and religion have completely disparate subject matters and methodologies. The role of science is “to document the factual character of the natural world, and to develop theories that co-ordinate and explain these facts,” while religion operates in the “utterly different realm of human purposes, meanings and values.” This seems to be unconvincing to anyone

acquainted with the philosophy of science and religion, where there are many possibilities of interface between the two.

In the opening chapter of the *Rocks of ages*, with the tale of the ‘doubting Thomas’ of the gospel of John, Gould delineates the violation of the NOMA principle. In Gould’s opinion, Thomas’ assertion - “except I shall see in his hands the print of the nails, and put my finger into the print of nails and thrust my hand into his side, I will not believe”- is the *credo summa* of the scientist and Thomas employs this method in the wrong magisterium of religion.

Later on, Gould suggests that a believer’s faith in the reality of miracles (miracles as divine suspension of natural law) is an intrusion upon the proper magisterium of science, for nature works by invariant laws subject to scientific explanation. He says, “If you believe that an adequately loving God must show his hand by peppering nature with palpable miracles, or that such a God could only allow evolution to work in a manner contrary to facts of the fossil record (as a story of slow and steady linear progress toward *Homo sapiens*, for example), then a particular, partisan (and minority) view of religion has transgressed into the magisterium of science by dictating conclusions that must remain open to empirical test and potential rejection” (p. 94).

Thus theology shall not be allowed to posit a God capable of disrupting the progression of the universe. Gould in this way presents an Aristotelian “wrapped-up-in-Himself” God or the “God of the Philosophers” that Pascal would fulminate against, and not the living God of the Bible - the God of Abraham, Isaac and Jacob - a God who is involved in the evolving universe. Moreover, while he clearly sees the vice of the religious intrusion into science, he is less perceptive in assessing the corresponding vice of the scientific intrusion into religion.

It is true that natural science provides us with factual and objective truths. However, science, like other fields of human knowledge, is subject to constant change and revision, e.g., from the Ptolemaic view to the Copernican revolution. Sincere seekers of truth, including the scientists, must be open to new vistas of knowledge. Scientists must adopt the attitude of G.K. Chesterton: “Nothing is more practical than a good theory.” Accept the theory as the wisdom of the day (even the evolution

theory), but be open to the marvelous and unfathomable mystery that eludes us - the reality that is cloaked in the shroud of mystery.

Religion or Rationality?

Gould's theory of NOMA suffers from a serious weakness, for Gould apparently does not have a comprehensive picture of what religion actually is. "The magisterium of religion extends over questions of ultimate meaning and moral value." In *Rocks of ages*, Gould's religion is no more than a vague system of ethics, which is something quite distinct from the organized religion we see in the world today. Quoting J.S. Haldane as an authority, Gould makes the assertion that religion does not need to invoke the supernatural. His professed respect for religion actually relies on a carefully circumscribed notion of religion. The religion of his argument is a religion of the reasonable people - people who accept a system of beliefs consistent with rational thought and the findings of modern science. By confining religion to the comfortably scientific realm of reason and wisdom, Gould as a scientist in a way makes an intrusion into the magisterium of religion.

His concept of religion is stripped of virtually all the elements we normally associate with religion - belief in the supernatural, worship of God, an origin myth, the acceptance of an after life, etc. Almost all religions embody certain descriptive 'truths' about the world, truths based not on any empirical reality but on mysticism, mythical stories, and revelation. Precisely because such truths run counter to empirical reality, they conflict with the scientific worldview. The history of the relationship between science and religion in the pre-modern era sufficiently substantiates this.

Conclusion

The theory of NOMA appears to be strong, illuminating and convincing. But what about its application? Will the scientific community be ready to leave their "scientist hats" while discussing the claims of religion? In spite of Gould's assertion that most of the 'professional clergy and religious scholars' are defenders of NOMA (p. 129), the majority of religious people around the world are not ready to give up certain claims of religion that run counter even to scientific discoveries. These differing

views and attitudes make an open, mutually respectful dialogue between science and religion very difficult. Nonetheless science and religion cannot maintain such a non-overlapping position because there are areas where they inevitably struggle: cloning, euthanasia, contraception, artificial insemination, etc.

Gould is more of a scientist and less of a theologian or philosopher. This creates a disequilibrium while comparing religion with science which Gould obviously knows intimately. He is a scientific insider looking out, seeing everything through a specialized lens. His views are always contained and constrained by the bubble of science.

Moreover, Gould's understanding of religion seems to be a carefully crafted one, so as to essentially ensure the success of his proposal of NOMA. By defining religion in this manner, it becomes easy for him to claim no conflict between his non-overlapping magisteriums. Science retains all its power and prestige, while religion becomes redefined so as not to cause any trouble. Thus Gould's religion is very narrow and limited.

Notes

1. Roget Vettukallel CST is lecturer in systematic philosophy at Little Flower Seminary - Institute of Philosophy and Religion, Aluva - 1, Kerala.
2. Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life* (New York: The Ballantine Publishing Group, 1999). The author of more than fifteen books, Gould was also the author of the longest-running contemporary series of scientific essays, which appeared monthly in *Natural History*. He was the famous Harvard professor of zoology and geology. He died this past May at the age of 60 of metastasized lung cancer. The quotations of this article are from the *Rocks of Ages*.