

Science and religion can coexist and even inform one another

By Ian Barbour

In a recent survey, people listed in *American Men and Women of Science* were asked the question: "Do you believe in a God to whom one may pray with an expectation of receiving an answer?" Thirty-nine percent answered yes. The figure is only slightly lower than the 42 percent who answered yes to the same question in 1916.

Interest in religion is growing today among a significant minority of scientists. Moreover, a new interest in science has emerged in portions of the religious community today.

Let me describe four ways of relating science and religion, of which I favor the last.

Conflict. Since Darwin's day, the most widely held image has been that of conflict or warfare. We hear of materialist scientists pitted against biblical literalists. One group believes in evolution but not God; the other believes in God but not evolution. But between these two extremes are many people who believe in both God and evolution, or see evolution as God's way of creating. Despite the media focus on dramatic controversy, in reality, there are diverse views among scientists and diverse views within our religious traditions.

Separation of Domains. Some believe we should assign science and religion watertight, separate domains of life. Science asks about causal connections between natural phenomena, while religion asks about ultimate meaning and purpose in a wider interpretive framework.

This separation is attractive because it recognizes the distinctiveness of religion in human life. Religion has to do with communal worship and liturgy; prayer and meditation; forgiveness and renewal in our lives and communities; ethical decisions, the ways we treat our neighbors and our response to issues of social justice.

All these activities seem far removed from science. But they all presuppose beliefs about God and human nature that are affected by science. And we cannot be content to divide our lives into watertight compartments.

Religious dimensions of science. Many scientists feel awe and wonder in response to the universe. For some, the order and mathematical beauty of nature have religious implications. Albert Einstein wrote: "A conviction, akin to religious feeling, of the rationality or intelligibility of the world lies behind all scientific work of a high order."

There is much that inspires the religious impulse in science — much reason to sup-

pose that ours is, indeed, the kind of world we might expect if an intelligent and personal God was interested in the creation of life, consciousness and intelligent beings capable of personal relationships. But mere feelings of religiousness don't help the two sides work together.

Dialogue. I think this is the most promising approach. It allows us to draw from both the scientific and religious communities, not simply from either one alone. We can start from a particular religious tradition and ask how its concepts can be reformulated in the light of science without abandoning its central convictions.

For example, the authors of Genesis believed that death was initiated as a punishment for human sin. Now we know that death was present long before human beings were around and that it was a necessary feature of being evolutionary. But again, that illuminates the role of death. We can take the Bible seriously without taking it literally.

And we must re-examine Christian attitudes toward the environment. Stewardship is called for, since "the earth is the Lord's" and we are accountable for our treatment of it. Religious traditions can encourage our concern for the world of nature at a time when it is threatened by our escalating demands.

Most scientists recognize that science itself cannot identify the goals and values toward which the applications of science should be directed. Great ethical issues have arisen from applied science and technology. Here religious traditions can have a distinctive role in individual decisions and in public policy. Our new technologies give us new powers over nature and human nature, requiring choices we have never faced before, such as those in genetic engineering and human cloning.

These ethical decisions should not be left to scientists alone but require public discussion because the future of humanity is at stake. Religious commitments can motivate us to seek environmental preservation, social justice and human dignity through democratic political processes.

Ian Barbour is Winifred and Atherton Bean Professor Emeritus of Science, Technology and Society at Carleton College in Northfield, Minn. He made the remarks above at his acceptance of this year's Templeton Prize. Founded by global investor Sir John Templeton, the prize, which bills itself as the world's largest annual monetary prize, promotes rapprochement between science and religion. This year's award, announced yesterday, is worth \$1.24 million.

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