Multiple ways of explaining in science and religion

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John Polkinghorne — about whom I wrote last week and with whom I have enjoyed spending some discussion time here in Cambridge, England — has written what he calls his last book, “Science and Religion in Quest of Truth.” He calls himself a “bottom-up” thinker in the attempt to take the evidence of scientific experiments and religious experience to develop theories that seek to be coherent and explanatory.

He attributes the success of science by its limiting its scope to “only one dimension of the human encounter with reality, essentially that which can be called impersonal.” He also argues that, in spite of this limitation, “scientific achievement cannot be claimed to constitute the attainment of complete and absolute truth. Instead science’s exploration of reality must be seen as resulting in the creation of ‘maps’ of the physical world, which are indeed reliable, but only on a particular scale.”

The map image reminds me of the difficulty of making a two-dimensional map of the three-dimensional planet Earth. When looking at a flat map of the flight route from America to England, it seems like one goes too far north rather than straight east. That is because the map distorts what is in fact the shortest distance on the globe, which is the arc of a great circle.

My Muslim friends point out the same situation when in their daily prayers they are to face Mecca, for which the shortest “great circle” route is facing northeast from Grand Rapids.

Theology and religion use metaphor and symbolism to create maps that help us comprehend aspects of reality that go beyond the limits set by science. Because of the complexity and uniqueness of human experience the “maps” are not as specific and precise, yet they can be invaluable in helping us make our way through the pathways of our human existence.

HERITAGE AND TRADITION

Polkinghorne also recognizes the difference between the cumulative nature of science and the importance of tradition and heritage in other fields. He points out a “physicist today understands much more about the universe than Isaac Newton ever did, simply by living three centuries later than that great genius.”

“In religion, as in every other encounter with reality, there is no presumption to be made of the superiority of the present over the past. Just as the individual creative work of Bach and Beethoven is an indispensable part of our present experience of music, so in theology the insights of great figures of the past remain a necessary part of the contemporary conversation.”

For Polkinghorne, both science and religion require a rational strategy based on experiment and experience. Both build models and use metaphors that cannot be taken literally.

Science and religion seek to explain, but there are different and yet not incompatible ways of explaining. I could ask why a candle burns and give a scientific explanation involving the breakdown of hydrocarbons into molecules of hydrogen and carbon, which vaporize and react with oxygen from the air to create heat, light, water vapor and carbon dioxide. Or I could give a practical explanation: It’s burning because I just lit it. Or a purposeful explanation: It’s burning because we are celebrating a birthday or a baptism.

While the scientific explanation might be precise and non-controversial, the purposeful explanation might be more relevant in a given situation. All of the explanations can be true while not in opposition. As I explore the different ways in which our scientific and religious languages function, I also am aware of the differences among the various religious traditions and how religious explanation is much more complex and nuanced.

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