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What is the purpose or meaning of life? Or of our universe? These are questions which should concern us all.

As a scientist, I have been primarily trying to understand our world — the universe, including humans — what it is and how it works. As a religiously oriented person, I also try to understand the purpose of our universe and human life, a primary concern of religion. Of course, if the universe has a purpose, then its structure, and how it works, must reflect this purpose. This obvious relation brings science and religion together, and I believe the two are much closer and more similar in nature than is usually recognized.

My study of the connection between science and religion began when, back in the 1960s, the Men's Class of Riverside Church in New York asked me to talk as a scientist about my view of religion — perhaps because I was the only scientist they knew who regularly attended church. The editor of IBM's THINK magazine happened to be in the audience and shortly afterwards telephoned to ask if, of all things, he could publish the talk in THINK. He did. I was again surprised when the editor of MIT's alumni journal asked if he could also publish it. The latter resulted in a serious objection on the part of an MIT alumnus, who would have nothing more to do with MIT if such were ever done again.

I certainly agree that university journals should not be used to sell religious views. On the other hand, I believe that serious intellectual discussion of the possible meaning of our universe, or the nature of religion and philosophical views of religion and science, need to be openly and carefully discussed. In the intellectual world, we shouldn't try to sell ideas, but we should be able to examine them freely.

A well-established scientist and philosopher was once asked to define the “scientific method.” Oh, he said, it is “to work like the devil to find the answer, with no holds barred.” I believe the same can be said of religion. We use all of our human resources to understand either one — instincts, intuition, logic, evidence (experiences or observation), postulates or faith, and even revelations.

We all recognize that science has produced remarkable results. It allows us to do so many things and to think we already understand so much. Science is indeed wonderful, and yet there are still mysteries, puzzles and inconsistencies.

We are now convinced that the matter we can identify in our universe is only about 5% of all that is there. What is the rest of it? Scientists are trying hard to detect this strange unknown matter. Will they, and when? Relativity and quantum mechanics have been remarkably successful, and we believe they explain and teach us many things. And yet, in certain ways they seem logically inconsistent. At present, we simply accept such inconsistencies and use these two fields of science with pride and pleasure.

The mathematician Gödel noted that to prove something we must start with a set of postulates, but then demonstrated that we can never prove the set of postulates are even self-consistent unless we make a new overarching set of postulates which themselves cannot be proven self-consistent. So, in science, too, we need faith — or what we normally call postulates. An extreme and somewhat amusing statement of our lack of firm proof was that of Bishop Berkeley, for whom my town of Berkeley, Calif., was named. He noted that we cannot absolutely prove that the people and things we think we see are really there — we may not be seeing them at all but only have such things in our imagination. The bishop was perhaps correct, but nevertheless we all believe those people and things we see are real.

The most basic of sciences, which is physics, has been increasingly concentrating on problems which are pertinent to the interaction of our ideas in science and religion, such as the origins of the universe, cosmology, the nature of matter, and of the physical laws. This has recently focused attention on what a special universe is ours, and the strikingly special laws of science required for the existence of life. Why does such an improbable universe exist?

As we try hard to learn and understand more, where will that take us, and how much of our present sense of reality and meaning will be changed? I believe physics provides an illustration of the possible nature of future changes.

Classical, or Newtonian, physics has been remarkably successful, explaining and predicting many things very accurately and convincingly. But, as scientists began to look closely at very small things such as atoms and molecules, they were forced to modify their ideas basically, and “quantum mechanics” was discovered.

Quantum mechanics and classical mechanics are philosophically very different, and the behavior of atoms and molecules can only be understood by this radically different quantum mechanics. But quantum mechanics must and does also apply to larger objects such as planets, balls, or our own motions. Classical mechanics was in principle quite wrong. But, it was a good approximation, explaining very accurately the motions of everything much larger than atoms, such as planets, balls, or ourselves. We still teach and use classical mechanics. It's a very good approximation to reality and much simpler to understand than quantum mechanics, even though philosophically incorrect.

As we understand more, will our views in science and also in religion be revolutionized as science already has been by quantum mechanics? My guess is yes. We must be open-minded and without completely frozen ideas in either science or religion. But even with future changes, I also guess that, like classical mechanics, our present understanding may be a good and useful approximation even though new and deeper views may be revolutionary.

Overall, I believe we must try hard to understand both how our universe works and what is its meaning as well as we can, and for now, live by our best understanding. I hope very much that humans will in the future understand more and more deeply, which can change our views. And, just as classical mechanics still works well, I expect our present ideas and principles will still have a useful and functional validity.

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