

Higgs Boson and God

In 1964 the physicist Peter Higgs suggested that there had to be a crucial particle (a boson) that helped explain how matter could emerge from the "Big Bang" explosion of gases that is the most popular scientific theory as to how our world came about. Higgs said the so-called "God particle", which is the building block of the universe, only has a lifespan of a millionth of a millionth of a millionth of a second and I guess that's why it takes billion dollar accelerators to go looking for it. Now I admit I am a complete dud as far as physics or math are concerned. I can understand atoms and neutrons and protons, but when it gets to bosons and fermions I am lost.

I enjoy reading scientists like Stephen Jay Gould (1941-2002) the paleontologist, evolutionary biologist, and science historian. I am fascinated by science because it makes our world go round. Thanks to it, we have cellphones, the internet, space travel, and all the technological advances we take for granted. And I believe we have an obligation to try to understand our universe. The Talmud itself insists that if anyone can calculate the way the universe functions and does not, it is as though he cares nothing for the God who made it all. The more we understand, the more we can do. Science is an essential part of our lives. But it is not the only essential element.

For all the amazing advances, we humans are still the same selfish, confused, super-animals, and we desperately seek nonscientific resolutions of our inadequacies. That's why religion (and, sadly, superstition and magic) still plays such an important part in our societies. That was why Gould, for example, championed the theory of non-overlapping magisteria. Except they so often are overlapping and interconnected. That's why so that many of us try to find a modus vivendi.

There is an ongoing debate in religious circles as to how to explain Talmudic statements that contradict current scientific knowledge. Some authorities have simply accepted that the rabbis worked within the framework of contemporary knowledge and would certainly have changed their opinion had they known what we know. Others suggest that times have changed and the natural world today is not what it was then. And of course, wouldn't you know, there are those who argue that the rabbis must be right and science must be wrong (as indeed it often has been on lots of its theories). It's not unlike the current debate over climate change. No scientist of stature believes it is not happening. They argue about the causes. But still there are some backwoodsmen who deny it altogether.

Science has its practical applications and theoretical ones. It works through experiment and through guesswork that needs to be verified or rejected. One develops new theories that either build on earlier ones or supersede them entirely. Ptolemy gives way to Copernicus, Newton gives way to Einstein, and then comes Higgs, whose boson theory was no more than that for fifty years. But at least now we have some objective evidence (a distinct weakness in the God theory if, and only if, it is evidence you need). So it is with so many

areas of science—creation, evolution, and indeed psychiatry and economic theory. While these theories are still being tested, it is possible to be skeptics and find ways of making fun of them or picking them apart.

That's how established magisteria (like religions) have always tended to react to new ideas. We must accept the past until we are forced screaming into the present. Some people simply reject new theories. Some simply accept them regardless of the gaps, and others try to reconcile the two positions. Gould's answer is to give up even trying to. Just accept that there are different kinds of knowledge and certainties. I admit that after years of trying, and up to a point succeeding, in reconciling the Torah and the Midrash's view of the universe and sciences, I no longer care to or try to. My God world is my spiritual vision. My science is my material view. I occasionally spend time meditating on or thinking about how the world came about, but most of the time I just get on with my day-to-day living in which Torah is a constant presence.

When scientists half seriously called it "the God particle", they meant that it solved or almost solved the question of how the world became what it has out of the initial bang of gasses, and how gases could eventually turn into matter without involving God at all. But of course the religious position was always that God initiated the bang and supervised its evolution. Which is very reassuring for those who believe in God. But, of course, it is not science. But maybe we humans simply need more than science.

So, delighted as I am that Higgs has got his boson, it doesn't change anything for me. Neither would it if evolution filled in all the missing links, if human life were discovered in other galaxies, or if spaceships came to earth. I can enjoy a sunset, and I can enjoy a sunset AND think of a Divine presence as well. My job is to make a success of my life with the circumstances and knowledge I have access to and in doing that I think I have the best of both worlds.