Bereishit

In the past two years, since my retirement, I have been reading physics books that give the glorious picture of the development of science. They often go back to the Greeks, whose speculations anticipated much of the science of today, and whose development of mathematics put much of our thinking on the right foot. The limitations to the advancement came with a lack of instruments of measurement, notably telescopes and microscopes, clocks, and other devices that would enable us to see stars, molecules, germs, atoms, etc.

But the largest obstacle for a thousand years was Christianity whose dogmatism posed deadly threats to those who speculated on geographical and astronomical orders at odds with the reigning theological notions. Mention only the names of Darwin and Galileo to understand the power of ignorant religious opposition to scientific advancement.

The classical development of physics reached its first peak with Newton whose three laws, and especially the measurement of gravity’s force led to a non-religious, rational explanation for the motions of the stars and planets that corresponded to the same laws that measured the fall of objects on earth. The power of his vision carried to 1905 when Einstein published the first papers on special relativity, ending Newton’s notions of absolute time and absolute space. Newton’s notions of time and space were not based on irrefutable scientific work, but rather on the notion that God created space and time outside the imperfect material realm of the earth and the stars. Einstein took space and time out their location beyond the real realm of our material universe, and showed them to be relative notions that made time a function of the speed at which the object in play was moving. Instead of time and space being independent, absolute, and objective, they came together into a unified field called spacetime, which varied according to the forces of gravity that came into play.

Einstein came not to believe that the real nature of particles, like photons or electrons, would change as they were observed by scientific experimenters, and ultimately made the famous statement, God would not play dice with the universe. But the development of quantum mechanics belied his belief, and his ultimate goal of showing how all the forces of the universe, including gravity, could be combined under one set of unified equations was never realized.

This year the nobel prize of physics was awarded to penrose and two others whose discoveries bore on black holes in our universe. Penrose had worked with Hawking who is credited with the original discovery of the math that accounts for black holes. His work has developed in the past half century, but at heart his account in The Short History of Time remains basically accepted. We and everything in the universe that we know about was created as the result of a big bang. It is likely that there were other big bangsthat account for the creation of time and space, and that might well mean black hole formations and explosions that preceded the one that accounts for the universe we live in, and that accounts for our existence along with everything else.

I have tried to make this as short as I could. There are refinements of every sentence I wrote that are amazing and extensive. We might be only one of zillions of other universes, but the science and observations we can make, with the math available to us, suggest that any reasonable account of existence must begin with the full history of what I just sketched out. It is the most wondrous of stories imaginable, and at the same time exposes the most degraded aspect of human beings in the attempts to suppress the development of science for theological or venal reasons. It need not simply be religious blindness, but a politician like trump or business people whose self interest leads them to oppose science and environmentalism.

I write this not to state that the genesis view of creation is wrong or stupid. It would be if it were science, but it is not an attempt at a scientific account, but a way of formulating a creation story that did not rely on measurement or observation, and that accorded with a vision that underlay their worldview. Their way of presenting the account was magical—people would say mythical. It provided a powerful story that enables us to wonder and speculate with rich images and ideas; but it does not read like science. The stupidity is not in the account, but in the ways in which religious minded people have referred to and built on it over the ages. That is a warning for us in our reading of genesis: it isn’t a metaphor for real science; it isn’t a message from god; it isn’t something a reasonable person of any period in history could take literally. That is for 4 year olds, not adults. I don’t know why it remained embedded in people’s orthodox views of reality, and especially why the church had to build obstacles to Galileo and Darwin.

So what can we make of Genesis. I wish I could elaborate on readings I would love to attempt, but instead I will construct a series of questions about the parts I love, to ask you all to provide some speculation on how we might think about these sections if you were to write a dvar.

--creation begins with the heavens and the earth, and takes for granted god’s existence. Why begin with any of that? Why is god there at all?

--the first act in this story is god saying, let there be light, and then it followed that light was created. Why not light first? Light created and then god speaking? Why speaking as leading to creation? Why is any of this good?

-- Earth gets filled with a division of water above and water below, land formed. And after that, the rest is filled in with life forms as we know it. It ends with humans; with god saying to humans to rule creation; and that it was good. why call it good?

It would be interesting to ask about a creation story without a creator and without any claim about it being good. what limits does this story impose with its assumption that there is a god, that god speaks, and thus creates, and defines the roles of beings in the universe as well as judges what is good. what would it mean if we could challenge every one of these assumptions, and still claim to want to be jewish, as Einstein did.

We have a garden of eden story that focuses on explaining how evil came into the world. How man and woman were formed, how they came to disobey god, how they were expelled from eden after woman was convinced by the serpent.

How much of these two accounts depend upon a creator god identified as the source of good. what if we dumped both ideas, and yet continued to read the torah and kept on interpreting it. Could we do so without these notions of god and goodness that hawking and Einstein never used in formulating their explanations of the universe? Shouldn’t we advocate for ending these accounts of god’s existence and nature and goodness as linked to these two stories, creation and the garden of eden? Where would we begin?