

Where science and faith meet

BY MAUREEN ARGES NADIN

‘WHY IS there something instead of nothing?” The biggest of the big questions, these seven words sum up the ultimate quest to understand the meaning of not only our own existence, but the existence of the universe itself. It is a question that is at the root of many existential and religious discussions and frequently quoted in debates that place religion and science as opposing forces destined to collide. The question is, excuse the pun, universally famous and anyone seeking its origins will eventually learn that German existentialist philosopher, Martin Heidegger, was one of the first to present the conundrum in the early 20th century.

I recently listened to an online lecture by Lee Smolin, a physicist at the Perimeter Institute, a scientific think tank located in Waterloo, Ont. This was a daunting experience for an English major who scraped through Grade 11 physics with barely a pass but it was worth the effort. Smolin says that, in science, as I suppose in all aspects of life, the questions are more important than the answers. That’s great because I have a lot of questions that don’t seem to have immediate answers and Heidegger’s question is at the top of my list. But, with the recent proliferation of discoveries in physics, astronomy and other space sciences, I believe that we are getting closer to the answers.

In the past few years alone, there has been a cosmic tidal wave of significant discoveries. Just a few weeks ago, physicists confirmed the presence of the long sought after Higgs Boson so called “God particle” — the particle that gives mass to the Universe or more simply put, holds it together. Last month, the Curiosity Mars Rover drilled into a rock located near an ancient stream bed and found traces of all that good stuff like sulphur, nitrogen, hydrogen, oxygen, phosphorous and carbon — some of the key chemical ingredients necessary for life. In an interview with NASA Science, project scientist John Grotzinger tells us that they have found an ancient area of the Red Planet where conditions were once favourable for life.

In other developments, scientists have been tantalized by data transmitted by the Galileo spacecraft in the late 1990s that indicate that Jupiter’s moon, Europa, may be



COSMIC NEIGHBOURHOOD

Cosmos, the search for more exo solar planets continues and as of January, the Kepler Space Telescope had identified 2,740 “candidates” for planets orbiting other stars in other solar systems. The Harvard Smithsonian Centre for Astrophysics has estimated that in the Milky Way alone, there are at least 17 billion earth sized exoplanets. Not only is there a lot of “something” out there, but it seems highly illogical if not slightly egocentric to assume that we are the only form of life in the “something.” One day in the perhaps not too distant future, we will find some form of life somewhere other than Earth and the scientific world will be changed forever.

But it’s not just science that will be impacted. Such an earth shattering discovery will rock every aspect of our daily life — philosophy, culture, politics, psychology — anything that influences our world view. But it is religion and faith that will face the biggest challenge and I wonder if the world’s religious leaders are starting to ask the Big Questions and preparing to dialogue with their counterparts in the scientific world. The recent election of a Jesuit Pope gives me hope that at least one of the world’s major religions might be ready.

The Jesuits are known to be great thinkers and intellectuals and it is the Jesuit priests who have operated the large telescopes of the Vatican Observatory, contributing to science and astronomical research since the 18th century. I’m a relentless optimist and I believe that, with the right preparation and discussion, science and faith don’t have to collide when the Big Discoveries happen — they will rather intersect and then integrate. Or at least that is what I see through my rose coloured glasses.

The European Space Agency’s Planck spacecraft has just returned a detailed map of the oldest light in the universe that tells us that the universe is not only 100 million years older than previously thought (13.8 billion years) but consists of more matter than we thought.



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