





News

The Pope's affirmation of science has a long history

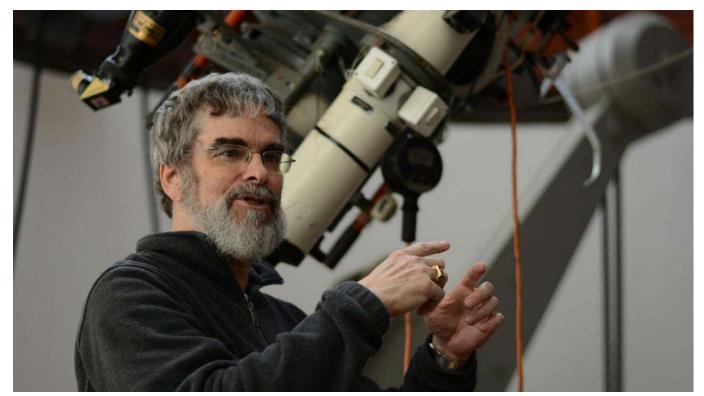
Monday 4 November 2019

John Long and Chris Mulherin

In recent press reports, Pope Francis affirms the importance of science, and he calls for scientists to devote their efforts to the betterment of humanity and not simply for the fame and fortune that comes with new and exciting discoveries. In the context where faith and science are often seen as enemies, this is a welcome and important call from the head of the world's largest religious denomination. But it is not a radical change of heart for the Catholic Church.

For instance, in an article that the BBC headlined "How Pope Francis could shape the future of robotics", the Pope stresses the dignity of flesh-and-blood humanity and the dangers of blurring the lines between humans and robots. In another address to the Pontifical Academy of Sciences (whose members have included the late physicist Stephen Hawking and numerous Nobel Laureates), he suggested that advances in science should be used to help solve big-picture problems facing society such as climate change, the proliferation of nuclear weapons, energy needs of nations, and world poverty.

More important is the Pope's general respect for science, affirming mainstream scientific theories such as evolution or the Big Bang (an idea first proposed by a Catholic priest and scientist, Georges Lemaître). For centuries the Vatican has had an observatory run by astronomer priests committed to science and religion. Chief among them, the pope's astronomer Guy Consolmagno, said famously that he would happily baptise an alien should one be found.



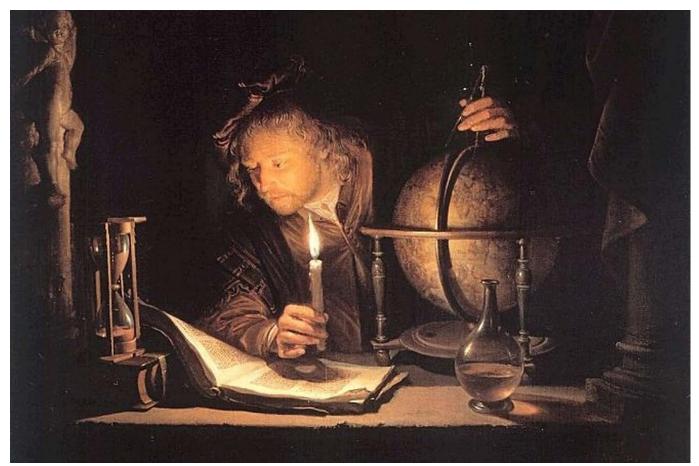
Vatican astronomer Br Guy Consolmagno

This Roman Catholic affirmation of science might strike some as desperate accommodation to the age. After all, hasn't the Catholic Church got a long history of resisting scientific advance? And if the Pope is now getting onboard with science, what benefit is that to either the scientific enterprise or to the Christian community?

Unmasking the conflict myth

The truth is that the stories we heard as students of science – of the flat earth, or of Galileo and Bruno being put to death for their scientific views – are not historical fact. They are polemical fairy tales driven by cultured despisers of religion in their wrestle for power and the cultural high ground. And yes, perhaps in equal measure, there were those within the Catholic Church who sought power at the cost of intellectual integrity.

Many people in our increasingly secular culture might find all of this surprising. After all, ever since books such as A. D. White's 1895 *History of The Warfare of Science with Theology in Christendom*, it has been widely assumed that science is incompatible with Christianity in general and Catholicism in particular. The Church's unfortunate handling of the Galileo case is an often-cited example; however the details are not as they are often portrayed. Australian historian of science, Peter Harrison, is quite forthright, even going so far as to say that the Church at the time had science on its side.



Gerrit Dou's Astronomer by Candlelight (1665)

Harrison, along with numerous historians, recognises that the scientific revolution was nurtured in a Christian cradle. And Catholic physicist and historian Stanley Jaki pointed out that the philosophical principles underlying the practice of science can be traced to the understanding of God's creation found in the Bible and in early Christian thinkers, such as Augustine. Many would even argue, with Rodney Stark, that it is no accident that the scientific revolution occurred in the Christian West, and not in the context of the other great ancient cultures.

So, why is the historical harmony between science and faith, championed by the pope, important for humanity?

The limits of science and of faith

One answer would be to quote Albert Einstein: "Science without religion is lame, religion without science is blind." Or, in the words of a previous prelate, Pope John Paul II: "Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into a wider world, a world in which both can flourish."

Ethically, the Pope's affirmation of harmony is important because, in spite of all its astounding achievements, science alone can neither solve all the world's problems nor answer our deepest questions. Science can make weapons and cures but not tell us when or whether to use them. Science can probe the depths of the universe but not tell us why there is something rather than

nothing. Science can tell us about survival of the fittest but not tell us if there is a greater purpose to human life. Science can deal with the particles and mechanisms of the physical world but not with purposes and meanings, which lie beyond science.

Philosophically, science depends on assumptions that neither science nor logic can derive. Physics assumes that the physical universe really exists and that our maths maps reality. It is rational, mathematical, and follows specific rules that we can discover if we persevere. Practising scientists take these assumptions on faith, then forget about them and get on with their work.

Physics, for example, astonishes with its mathematical model for the expansion of the universe in the split second after the Big Bang. But the _ultimate_ origin of the Big Bang and the laws of physics is not a question for the physicist. It is a question for the philosophers and theologians, as suggested by renowned physicist Paul Davies who explains how some physicists say that, having created itself out of "nothing", the universe could be the last free lunch.

Christianity too needs to curb its enthusiasm

While Christians should be pleased with the papal praise of science, they also need to remember the danger of theology straying outside its own domain. Although the relationship is more complex than Stephen J. Gould's "non-overlapping magisteria" (NOMA), the Bible does not offer scientific opinion. However, this is not a new revelation in the Christian church. Augustine, a theological heavyweight of Christianity, warned believers some 1600 years ago of the dangers:

It is often the case that a non-Christian happens to know something with absolute certainty and through experimental evidence about the earth, sky, and other elements of this world ... It is, therefore, very deplorable and harmful, and to be avoided at any cost that he should hear a Christian give, so to speak, a 'Christian account' of these topics in such a way that he could hardly hold his laughter on seeing, as the saying goes, the error rises sky-high. (Jaki, S. L. 1987. "The Universe in the Bible and in Modern Science." Ex Auditu 3: 137–47.)

Christian faith and science need not be at each other's throats. They both aim at expressing complementary aspects of the human condition, and we need science as well as the values and purposes that come from religion and philosophy to make a better world. Despite some media-magnified minority voices promoting the conflict myth, this is the consistent message of the pope and the Christian Church through the ages.

Rev Dr Chris Mulherin's new book *Science and Christianity: Understanding the conflict myth* will be launched on Thursday 7 November Catholic Theological College, 278 Victoria Parade, East Melbourne, at 6pm.

Rev Dr Chris Mulherin is a lecturer at the University of Melbourne, Catholic Theological College, is Executive Director of ISCAST-Christians in Science, and is an Anglican

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