

U.S. News interviews Mariano Artigas

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Technology: Next News

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Was Galileo asking for it?

By James M. Pethokoukis

That's the question pondered in *Galileo In Rome, The Rise and Fall of a Troublesome Genius* (Oxford University Press, 2003). The astronomer's conflict with the Roman Catholic Church and his subsequent trial have gone down in history as a pivotal episode in the seemingly eternal conflict between religion and science. As popularly understood, the church closed-mindedly hounded Galileo for his belief that the Earth revolved around the sun. But authors William Shea, historian and holder of the Galileo Chair at Padua University, and Mariano Artigas, professor of philosophy at the University of Navarra in Spain and an ordained Catholic priest, explain that Galileo did a number of things to inflame the situation.

For instance, when he argued for heliocentrism in his book *Dialogue*, he had a character named Simplicio (which in Italian sounds like simpleton) raise the same objections to heliocentrism that the pope had raised with Galileo. In addition, the authors point out that accepting heliocentrism had major theological implications that the church was not ready to tackle given the lack of evidence for the theory. Indeed, the observational evidence Galileo cited—such as the motion of tides—turned out not to be wrong. I recently E-chatted with Artigas.

Next News: It seems that Galileo couldn't have alienated the Vatican any more if he had tried.

Artigas: An important preliminary remark. I do not claim that the authorities of the church were right and Galileo was wrong. I think that the conflict was caused to a great extent by contingencies, including the personality and circumstances of the main characters. Surely Galileo did not realize the perverse effect that putting the pope's argument in the mouth of the ridiculous Simplicio at the end of the *Dialogue* could have. And in general he could have avoided ridiculing Aristotelians (Simplicio) so strongly. In the [follow-up book] *Discorsi*, after the trial, the partners of the dialogues were the same three (Salviati, Simplicio, Sagredo), but he did no longer ridicule Simplicio (Aristotelians as he did in the *Dialogue*... . But *Dialogue* was very strong, the pope knew nothing of [being mocked] (he thought there was no problem with the book), and when he realized what the final result was he became very angry. He was a close friend and admirer of Galileo's, and suddenly he realized that in some way Galileo had been playing with his friendship during eight years. The reaction of the pope was one of the keys of the whole affair.

Next News: How could Galileo have promulgated his views without running afoul of the authorities?

Artigas: Presenting them as a useful tool for calculations and not as the real truth about the world. He knew this, and in fact he said this more than once in the Dialogue, but he presented his case in such a way that the intelligent reader would notice that Copernicus was right. The bad news was that among his enemies there were intelligent people too.

Next News: How theologically disruptive were Galileo's theories?

Artigas: At first sight, not too much. A number of ecclesiastics saw no cause to stop them, and everyone knew that they were not heretical. Perhaps they were more disruptive in a more profound way, because the traditional interpretation of the Scripture was challenged jointly with the Earth-centered worldview that did not form a part of the Catholic teaching but was associated by many to a number of issues of the Catholic doctrine (heavens above and hell below at the center of the Earth; Ascension of Christ toward the heavens above; Incarnation of Jesus Christ at the center of the universe). Nothing directly heretical, but potentially troublesome, especially when there was apparently no proof for the Copernican view. Tycho Brahe's system was Earth-centered but admitted that the planets were orbiting around the sun; apparently it could substitute the ancient Ptolemaic system. This is why Galileo tried to combat Brahe's system and the Jesuits apparently associated with it.

Next News: Do you think a better understanding of the Galileo affair can help science and religion better coexist? That would seem to be an important goal given the increasing number of ways they could potentially come in conflict.

Artigas: Surely it would be easier for science and religion to coexist peacefully if one notices that the Galileo affair was not a consequence or manifestation of a necessary conflict between science and religion and was caused, to a great extent, by contingent factors. And I agree that a peaceful coexistence would be very desirable.

Next News: How do you see the current state of the ages-old conflict between science and religion, and where do you see it heading? How important an issue will this be for the first new pope of the 21st century?

Artigas: The problems now focus mainly on bioethics, but in my opinion this is an issue of a different kind: You can agree on the data provided by science and disagree about the ethical qualification of the use of the tools provided by science. This is not science vs. religion, but ethical problems that must be solved, individually and socially, on ethical grounds. There are other important issues, for instance those related with technoscience: Many scientists feel today that they are working for economic, political, and/or military goals they cannot change. This is a real ethical problem. Scientific progress is today closely intertwined with technological progress and needs a kind of funding that can be provided only by governments and big enterprises. Surely all this will be an important issue for the first new pope of the 21st century.