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The Galileo Case Revisited

"So, it's easy to criticize, but they're really criticizing science because I represent science," responded Dr. Anthony Fauci director of the National Institute of Allergy and Infectious Diseases since 1984 and the chief medical advisor to President Joe Biden — to criticisms of his handling of the Covid pandemic.

Fauci added that this is "dangerous," because "I'm not going to be around here forever, but science is going to be here forever. And if you damage science, you are doing something very detrimental to society long after I leave."



Justus Susterman

This led many to compare Fauci's remarks to the alleged statement of the absolutist king of France, Louis XIV — "*L'Etat, c'est moi*" ("I am the state") — implying that Fauci essentially said, "I am science."

Fauci is right about one thing: The near-deification of "science," or at least what passes for "science," will certainly continue long after Fauci's demise.

The expression "settled science" is actually an oxymoron, because science is a *method* for discovering new information. This information is then open to interpretation. New information should produce modified interpretations.

Rather than using the scientific method to unearth new information, leaving the door open to the discovery of new knowledge that might very well challenge or even completely contradict the previous interpretations, those who control the narrative — such as Fauci — assert dogmatically that their specific interpretation *is* science itself. It is reminiscent of the Pharisees in Jesus' time who substituted their interpretation of Scripture for Scripture itself.

Thus, we hear pronouncements such as those made by Fauci that his opinions are science, and anyone who differs with him is guilty of attacking science itself. This is not unique to the debate on the proper response to the Covid pandemic, as the Left uses this tactic in other instances. Political progressives such as former vice president Al Gore use this tactic in the climate-change debate to bully those holding contrary opinions. "The debate is over," Gore has pompously declared, arguing that "the science" has already demonstrated that human beings are causing global warming through industrial activity and the solution is strict control over the economy by national, and even global, governmental bodies. Those holding any other opinion are compared to Holocaust deniers.

Interestingly, it is common for the same individuals who argue that "we must follow the science" to ignore basic biological science in their arguments in favor of transgenderism or whatever else is the progressive, woke ideology of the moment.

But it is really not about science. It is about advancing a particular political ideology that requires removing alternative sources of loyalty and authority, such as the family — consisting of a man and a

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woman married with children — or religious faith.

This is why an accurate history of Galileo Galilei and his conflict with the Roman Catholic Church in the 17th century is important for us today.



Heliocentric model: It is now universally accepted that the Sun only appears to rise and set each day, but during the Renaissance period scholars influenced by the teaching of pagan philosophers (rather than anything the Bible said on the subject) argued that the Earth did not move.

Science vs. Christianity?

Unfortunately, in the secular-progressive version of history, Galileo is often cast as an enemy of Christianity and the Bible, while Christianity — particularly the Roman Catholic Church — is pictured as the enemy of science. Neither is true of the situation in the 1600s, yet even today those who dare to question assertions, such as human-caused global warming or the government's response to a viral pandemic, face comparisons to the supposedly anti-scientific Catholic Church, while their accusers wrap themselves in the mantle of Galileo, who is erroneously pictured as a brave opponent of the supposedly superstitious Christian faith.

For example, one world-history textbook this writer consulted said thus of Galileo's assertion that the Earth revolved around the Sun: "Most alarmed was the Roman Catholic Church, which held that Earth was the center of the universe. It condemned Copernicus' theory and forbade Galileo from defending the new ideas. Galileo flatly refused to obey — until he was brought before the Inquisition. Fear of being condemned as a heretic led him to state publicly that he was in error."

The truth of the Galileo case is much more nuanced than that. Actually, those who are today branded as "secular heretics" are those who question the supposedly settled science of global warming or raise questions about the way to treat Covid. Medical professionals were driven from their jobs during the pandemic for offering alternatives to the vaccines. A more accurate portrayal would have these brave men and women in the role of Galileo, and the Dr. Fauci-types in the role of the Inquisition.

But even that casting would be an inaccurate application of the Galileo case.

First of all, the notion that Christianity — and the Roman Catholic Church in particular — was an archenemy of scientific advancement is patently false. As Thomas Woods wrote in his book *How the*

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Catholic Church Built Western Civilization, "The one-sided version of the Galileo affair with which most people are familiar is very largely to blame for the widespread belief that the Church has obstructed the advance of scientific inquiry." Woods argued that even if the Galileo case was "as bad as people think it was ... this is practically the only example that ever comes to mind."

Galileo himself was a Catholic and a firm believer in the inerrancy of Scripture.

Before his historic conflict with the Inquisition, Galileo, a mathematics professor, said that the very fact that humans can discover facts about nature through mathematical proofs demonstrates that "the human mind is a work of God and one of the most excellent."

As Martin Luther's father sent him to college to become a lawyer only to see him abandon the study of the law in favor of an academic career in theology, Galileo Galilei's father sent him off to study to become a medical doctor. Knowing his father would not approve of his growing interest in astronomy and philosophy, Galileo kept a medical textbook close at hand, just in case his father showed up unexpectedly, but his passion was for mathematics and philosophy. Even as a college student, Galileo had an inquisitive mind, and he did not blindly accept the assertions of his professors. In a poem, he compared his professors to the Pharisees, blindly following traditional interpretations regardless of contrary evidence. Another time, he wrote a 300-word poem, *Against the Donning of the Gown*, satirizing academic ritual. Although it was written secretly, it was later spread to a disapproving faculty.

This clearly foreshadowed Galileo's obstinance when confronted by Church authorities.

In the Middle Ages, the great Greek philosopher Aristotle was greatly revered by both Christians and Muslims. For many of these devotees, to question Aristotle was much like questioning religious dogma. In fact, the Bible was often interpreted by these Aristotelians to reflect the views of Aristotle — a pre-Christian pagan philosopher. And Aristotle followed the views of Ptolemy, a greatly respected astronomer of the ancient world when it came to issues of the heavenly bodies.

Ptolemy (and Aristotle) taught what is called the geocentric conception, that the universe was a series of concentric spheres with a motionless Earth fixed at the center. Night and day were a result of the orbit of the Sun around the Earth. Because Aristotle accepted this concept, most Christian theologians of the time — such as Thomas Aquinas, considered by many to be the greatest theologian of the Middle Ages — unquestioningly did the same. After all, it was philosophically logical.

But not everyone bought into the geocentric conception. Nicolaus Copernicus of Poland read ancient works that contradicted Aristotle and Ptolemy, and after he concluded that the geocentric model was incorrect, he wrote a book challenging the established view titled *On the Revolutions of the Heavenly Spheres*. But fearing ridicule from fellow astronomers who had accepted Aristotle's geocentric paradigm, he waited until near the time of his death in 1543 to publish the book. This hesitance of Copernicus to challenge the established opinion of academia gives us some insight into why so much of modern academia is marred by conformity. Even today, if a contrary view in history or science cannot obtain "peer-review approval," that view cannot be published. And in many universities, the failure to publish can lead to a denial of tenure or promotion. Such a situation can stifle original thought in our day.

Copernicus, a mathematician, argued that Ptolemy's concept failed to account for the observed motions of the heavenly bodies. In its place, he offered a heliocentric, or Sun-centered, model.

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Interestingly, Copernicus' book was initially met with silence from the Catholic Church, but the Protestant reformer Martin Luther roundly condemned it in his usual bombastic way. Speaking of Copernicus, Luther said, "The fool wants to turn the whole art of astronomy upside down. As Holy Scripture tells us, so did Joshua bid the sun stand still and not the earth." Luther's fellow theologian Philip Melanchthon agreed, arguing, "The eyes are witness that the heavens revolve in the space of twenty-four hours.... It is the part of a good mind to accept the truth as revealed by God and to acquiesce in it."

Actually, Joshua 10:12-13 does not say, "so did Joshua bid the sun stand still *and not the earth.*" (Emphasis added). Joshua certainly pleaded with God to have the Sun stand still in the sky to win a battle, but it would have been ludicrous for him to ask God (even had he understood that the Earth's rotation is the cause of the apparent "rising" and "setting" of the Sun), "Lord, please cause the Earth to stop rotating on its axis so we can have sunlight to win this battle." Even today, we refer to the rising and setting of the Sun. No meteorologist would tell his audience that the Earth's rotation on its axis at an angle will cause the Sun to appear to set at such and such time tomorrow. What Joshua wanted was more daylight, not an explanation as to how the Creator of the universe was going to do it.

Some have speculated that it was the challenge of the Protestant Reformation, which placed so much emphasis on the authority of Scripture, that might have eventually influenced the Catholic Church to respond so negatively to Galileo. As Thomas Woods, a Catholic himself, explains, the Church was hesitant to permit the suggestion that the literal meaning of Scripture — which some believed stated that the Earth was motionless — should be "set aside in order to accommodate an unproven scientific theory."

It was another Lutheran, Johannes Kepler, however, who was next to challenge Aristotle and Ptolemy. While originally a student of theology, he eventually became a professor of mathematics and astronomy at Graz in Austria. He accepted Copernicus' heliocentric theory, but concluded that the planetary orbits were not circular, but elliptical.

Scientific Proof

Scientific proof of the heliocentric theory was still lacking, and it was Galileo who would make the most serious effort to provide this. While he did not invent the telescope, he certainly improved it. With it, he saw mountains on the moon — which undermined the assertions of Aristotle that the heavenly bodies were perfect spheres. More importantly, his observation of four moons orbiting Jupiter demonstrated that a planet would not leave its moons behind as it moved in an orbit around the Sun. This had been one of the principal scientific arguments against the motion of the Earth — that a moving Earth would leave the Moon behind.

Initially Galileo was praised by many Jesuit astronomers, and was even granted a long audience with Pope Paul V. At this point, it did not appear that Galileo would face any significant opposition from the Catholic Church. This should not be surprising, as Woods explained in his book. "Catholicism admits the possibility of miracles and acknowledges the role of the supernatural, but the very idea of a miracle suggests that the event in question is *unusual*, and of course it is only against the backdrop of an orderly natural world that a miracle can be recognized in the first place."

Woods added, "Moreover, the mainstream of Christian thought has never portrayed God as

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fundamentally arbitrary; it was accepted that nature operates according to fixed and intelligible patterns."

Aristotle was a great philosopher, but he erred by separating speculation from experience. For example, he claimed that an object twice as heavy as another object would fall twice as fast if both were dropped from the same height. But Galileo actually disproved that by experiment. He famously dropped two objects of different weights from the Leaning Tower of Pisa (there is some dispute as to whether that was the exact location of the experiment), and they fell at the same speed.

The universe that God created is intelligible and orderly, Woods said of the Church's beliefs, and it was precisely "this sense of the rationality and predictability of the physical world that gave early modern scientists the philosophical confidence to engage in scientific study in the first place." In his book *Creation and Scientific Creativity*, Paul Haffner explained, "It was only in such a conceptual matrix that science could experience the kind of viable birth which is followed by sustained growth."

Several Catholic churchmen made large contributions to the advancement of scientific knowledge. Roger Bacon, for example, was a Franciscan who taught at Oxford. He is rightly regarded as the forerunner of the modern scientific method, emphasizing the importance of experience and experiment. Bacon observed, "Without experiment, nothing can be adequately known. An argument proves theoretically, but does not give the certitude necessary to remove all doubt; nor will the mind repose in the clear view of truth, unless it finds it by way of experiment."

Albertus Magnus was a 13th-century bishop in the Catholic Church who, according to the *Dictionary of Scientific Biography*, "was one of the most famous precursors of modern science in the High Middle Ages." Magnus insisted that we should not simply "accept the statements of others, that is, what is narrated by people, but to investigate the causes that are at work in nature for themselves."

Multiple examples could be given of other Catholics, such as Gregor Mendel in the field of genetics, who made huge scientific contributions through experimentation; and other non-Catholic Christians such as Michael Faraday, who served as an elder and a deacon in a Protestant church and whose work in the field of electricity is immense, who have made some of the greatest scientific contributions in all of history. Faraday's work in science was heavily influenced by his strong faith in God. Isaac Newton, on the short list of the greatest scientists of all time, devoted more time to writing about his Christian faith than about science (or natural philosophy, as it was then called).

Galileo vs. the Church

The historical record is clear that the Christian faith in general, and the Catholic Church in particular, has been not an enemy of scientific advancement, but rather a champion of it. Why, therefore, was there eventually such a conflict between the Church and Galileo?

In his book *How Should We Then Live? The Rise and Decline of Western Thought and Culture*, the late Christian philosopher Francis Schaeffer discusses the Galileo case at some length. According to Schaeffer, "When the Roman Church attacked Copernicus and Galileo, it was not because their teaching actually contained anything contrary to the Bible. The Church authorities thought it did, but that was because Aristotelian elements had become part of church orthodoxy, and Galileo's notions clearly conflicted with them. In fact, Galileo defended the compatibility of Copernicus and the Bible, and this was one of the factors which brought about his trial."

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In other words, the adherents of Aristotle had been able to persuade the authorities of the Catholic Church that Galileo's challenge to the geocentric theory was heresy — the teaching of false doctrine. The report of the Holy Office (more popularly known as the Inquisition) stated that "the doctrine that the sun was the center of the world and immovable was false and absurd, formally heretical and contrary to Scripture, whereas the doctrine that the earth was not the center of the world but moved, and has further a daily motion, was *philosophically false* and absurd and theologically at least erroneous." (Emphasis added.)

Despite this strong statement, Galileo was still told by Catholic authorities that he could discuss Copernicus' theory so long as he maintained that it was not a fact but a mathematical supposition. In this way, Galileo could avoid excommunication.

In a letter to the Grand Duchess Christina in 1614, Galileo had defended the heliocentric theory as *not* contradictory to Scripture. "Since the Bible cannot err," Galileo wrote, "it follows as a necessary consequence that anyone takes an erroneous and heretical position who maintains that the sun is inherently motionless and the earth movable."

In layman's terms: In the Bible, Joshua needed continued light from the Sun to win a battle. Therefore, he asked God to make the Sun stand still in the sky. It is not known whether Joshua understood this would have required a temporary halt to the Earth's rotation.



Galileo explained his position: "With regard to this argument, I think in the first place that it is very pious to say and prudent to affirm that the holy Bible can never speak untruth — whenever its true meaning is understood.... In expounding the Bible if one were always to confine oneself to the unadorned grammatical meaning, one might fall into error. Not only contradictions and propositions far from true might be made to appear in the Bible, but even grave heresies and follies."

As an example, Galileo said, "Thus, it would be necessary to assign to God feet, hands, and eyes, as well as corporeal and human affections, such as anger, repentance, hatred, and sometimes the forgetting of things past and ignorance of those to come. These propositions uttered by the Holy Ghost were set down in that manner by the sacred scribes in order to accommodate them to the capacities of the common people."

While Galileo's assertions that the heliocentric model is correct are universally accepted today, he had not actually offered scientific proof, but rather had offered what we would today say was truth by

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preponderance of the evidence. Galileo was interpreting the data available to him in his day. Despite his undeniable greatness, Galileo is now known to have been in error in some things. For example, as Woods explained, Galileo "argued that the movement of the tides constituted proof of the earth's motion, a suggestion that scientists now find quaintly risible."

Even after the first condemnation of teaching the Copernican system as a fact, Galileo was received in Rome in 1624 favorably. Pope Urban VIII even presented him with several gifts, and offered to continue financing his works. The pope said that Galileo's fame "shines in the sky and is spread over the whole world." He even told Galileo that the Church did not consider the Copernican system as heretical, as long as it was taught as a theory.

Galileo eventually refused to compromise by agreeing to teach the Copernican system as a hypothesis until persuasive evidence could be produced. Woods noted, "When he took the additional step of suggesting that apparent scriptural verses to the contrary had to be reinterpreted, he was viewed as having usurped the authority of the theologians."

In 1632, Galileo published *Dialogue on the Great World Systems* — at the urging of the pope — in which he treated the Copernican system as a fact. The same independence of mind that Galileo had demonstrated in college with his poems was no doubt coming out once again. This led to a second appearance before the Inquisition, at which time Galileo publicly recanted. Privately, however, he continued to believe that the Earth moved, not the Sun.

Galileo in Perspective

Certainly, Galileo should have been allowed to publicly advance any scientific theory he wished, but the Catholic Church also had a right to condemn his theories, even to the point of excommunication. Both had a right to freedom of speech and freedom of association, if one believes in liberty. The lesson that should be drawn from the whole affair is not that Galileo challenged the Christian faith, the Bible, and the authority of the Catholic Church. On the contrary, Galileo professed strong belief in God and all major Christian doctrines, along with the Bible's inerrancy. Furthermore, it should be understood that Christianity, the Bible, and, in this case, the Catholic Church, are *not* the enemy of scientific advancement.

Yet that is how the Galileo case is ordinarily presented in the popular culture today, elevating "science" as a new religion with dogma that cannot be challenged. What often passes for "science" today is not science at all, but rather pseudo-science, used to advance various causes of the progressive Left.

Claims that "the science" states this or that should be open to contradictory evidence. Threatening scientists with a modern form of "excommunication" by firing them from their positions if they dare to challenge certain views is not healthy, but rather dangerous to human health, happiness, and liberty. The university system — largely created by Catholics in the Middle Ages — has been corrupted the point where it mostly promotes leftist ideology, not the pursuit of truth. We have seen this with so-called climate science, and with the harsh treatment of anyone who challenged the accepted dogma of how to deal with the spread of Covid-19.

History, as in the case of Galileo, is often distorted to support the progressive worldview as well. British writer George Orwell understood this well when he wrote in his classic dystopian novel *1984* that those who control the past control the future — and those who control the present control the past.



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