

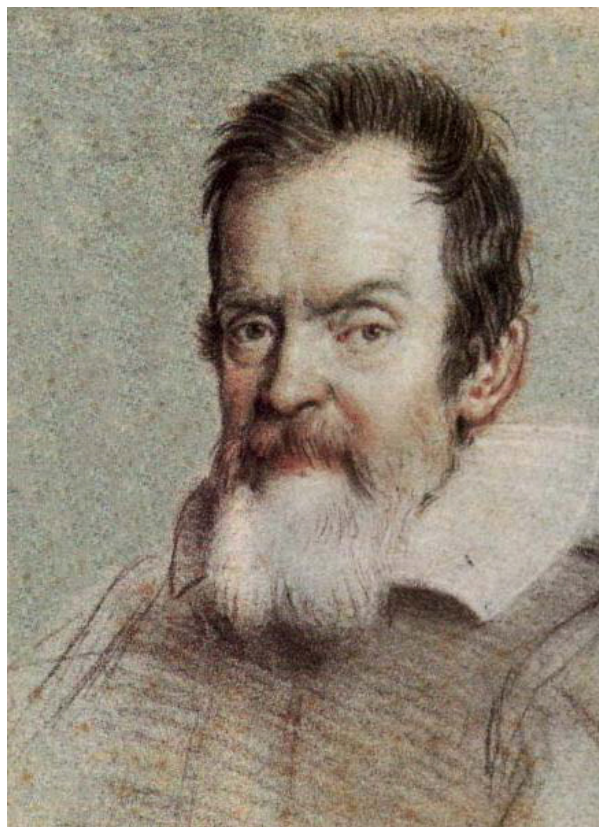
Galileo the theologian: Insights from science and religion for today

By Denis O. Lamoureux

I, Galileo, son of the late Vincenzo Galilei of Florence, seventy years of age... I have been judged vehemently suspected of heresy, namely of having held and believed that the sun is the center of the world and motionless and the earth is not the center and moves... With a sincere heart and unfeigned faith I abjure, curse, and detest the aforesaid errors and heresies.

O N 22 JUNE 1633 IN THE CONVENT of the Minerva and on his knees, Galileo read publicly this formal abjuration. This was not a great day in the history of the Church, or in the history of science. This episode has led many to assume that science and religion are entrenched in an irreconcilable conflict, and Galileo has emerged as the symbol and patron saint of the battle between scientific advance and religious obscurantism.

But was the Galileo affair that simple? And was it a conflict pitting science against religion? Historical studies during the last twenty-five years have revealed that numerous factors contributed to Galileo being tried, convicted, and sentenced to live the last decade of his life under house arrest. It was a volatile time and he was a volatile personality. Roman Catholicism was fresh off the Protestant Reformation, Aristotle's views that had been integrated into Catholic theology were being challenged, the discovery of the telescope in 1609 opened a picture of the universe far more amazing than ever



imagined, and the printing press disseminated novel ideas throughout the culture— followed by the Index of Prohibited Books that attempted to protect the faithful from some of these. And then there was Galileo. He was arrogant, contentious, and quick to anger. In his most important book, *Dialogue on the Two Chief World Systems: Ptolemaic and Copernican* (1632), one

of the dialogue partners is a man named “Simplicio,” whom many identify as the sitting Pope at that time, Urban VII. This was an accident just waiting to happen.

Yet thanks to science-religion scholarship during the last thirty years, a new and more nuanced picture of the Galileo affair has emerged. Led by the Roman Catholic Church, it culminated in documents by Pope John Paul II and Cardinal Paul Joseph Jean Poupard that have come to be known as “The Apology to Galileo.” The Pope had a blunt criticism for the Church, “[Copernican astronomy] obliged theologians to examine their own criteria of scriptural interpretation. Most of them did not know how to do so.” And the Cardinal confesses, “This subjective error of judgment, so clear to us today, led them to a disciplinary measure from which Galileo had much to suffer.” The scholarly work on this

affair has also revealed a fascinating aspect of the famed astronomer. Galileo had a remarkably well-balanced approach to the relationship between his Catholicism and his astronomy. In particular, and quite surprisingly (or better, ironically), he had a grasp of the principles of biblical interpretation far ahead of its time and

well beyond that of the 16th century theologians who judged him.

Much of Galileo's work on science and religion is found in a marvellous document entitled, "The Letter to the Grand Duchess Christina" (1615). Let's examine a few of Galileo's insights on the topic. Let us also be mindful of the modern origins controversy. Many of our students struggle with biological evolution and some, like me forty years ago, lose their faith because of origins. But over my fifteen years of teaching I have found that once students learn how Galileo related astronomy and Christianity, they are quickly freed from the conflict model of science and religion, opening the way for a fully integrated world-view based on the best modern evolutionary sciences and the historic Christian faith.

Two divine books

The foundation of Galileo's approach to science and religion rests in the Trinitarian God of Christianity. He writes, "For the Holy Scripture and nature derive equally from the Godhead, the former as the dictation of the Holy Spirit and the latter as the most obedient executrix of God's orders." Galileo embraces the classic "two divine books" model whereby God is both the Author of the Book of Scripture and the Creator of the Book of Nature. More specifically, both of these "books" are divine revelation. Galileo notes, "God reveals Himself to us no less excellently in the effects of nature than in the sacred words of Scripture; as Tertullian perhaps meant when he said, 'We postulate that God ought first to be known by nature, and afterward further known by doctrine—by nature through His works, by doctrine through official teaching.'" What is most striking in this passage is the balance between these dual relations, since they are equally excellent. The appeal to the second-century Church Father Tertullian offers a helpful insight in that, when sharing our faith with others, we can point to nature as a first step towards finding God.

Galileo also introduces an important division of labour between the two divine books. With regards to theological issues, Scripture has priority over science. "I have no doubt at all," Galileo asserts, "that where human reason cannot reach, and where consequently one cannot have a science, but only opinion and faith, it is appropriate piously to conform absolutely to the literal meaning of Scripture." On the other hand, regarding scientific topics, he contends, "I think that in disputes about natural phenomena one must begin not with the authority of scriptural passages but with sensory experience and necessary demon-

strations." There is a dire need today for many Christians to understand these insights because too often they attempt to draw scientific truths from Scripture. For example, a recent study reveals that 51% of American Roman Catholics believe the creation week in Genesis 1 is "literally true, meaning it happened that way word-for-word." Not surprising, this figure rises to 87% with Evangelical Protestants. But Galileo encourages us to let evolutionary biologists reveal how living organisms arose and to let biblical theologians proclaim that God is their Creator. Or as Pope John Paul II admonishes, "The Bible itself speaks to us of the origin of the universe and its makeup, not in order to provide us with a scientific treatise, but in order to state the correct relationships of man with God and with the universe."

Science in scripture is incidental, accommodated, and ancient

Though the Bible is not a book of science, it nevertheless makes numerous statements about the natural world. For example, the very first verse of Scripture states, "In the beginning God created the heavens and the earth." Galileo offers us perspective regarding such passages. First, he notes that "Scripture speaks incidentally of the earth, water, sun, or other created thing . . . Sciences are discussed in Scripture to a very minor extent and with disconnected statements." In other words, the so-called "science" in the Bible is not the essence of this revelation.

Second, Galileo argues that God came down to level of the biblical writers and readers and used their understanding of nature to reveal as effectively as possible. In the same way that the Lord descends to our level in prayer, he accommodated in the biblical revelatory process. Galileo contends, "Propositions dictated by the Holy Spirit were expressed by the sacred writers in such a way as to accommodate the capacities of the very unrefined and undisciplined masses . . . in order not to sow confusion into the minds of the common people and make them more obstinate against dogmas involving higher mysteries."

Third, the famed astronomer then adds what I consider to be one of the most important concepts in understanding the relationship between science and Scripture. "Indeed I shall further say that it was not only respect for popular inability, but also the current opinion of those times." Stated another way, the Bible includes the science-of-the-day in the ancient world. Of course, God could have dictated to biblical authors that he created the universe and life through the Big Bang and biological evolu-

tion. But would anyone thousands of year ago have understood? Here I find the Incarnation instructive. God came down and took on our flesh to become human in the person of Jesus. Jesus himself used ancient notions like the mustard seed as being the smallest of all seeds (which it is not; orchid seeds are much smaller) in parables about the Kingdom of God. So too in biblical revelation: the Holy Spirit used human understandings of nature to reveal God's love for us. Consequently, today we need to separate the spiritual, life-changing messages in Scripture from the ancient scientific vessels that deliver them.

A lesson for today

Galileo summed up his approach to the relationship between science and religion, and in particular science and Scripture, by appealing to Cardinal Baronio's famed aphorism. "The intention of the Holy Spirit is to teach us how one goes to heaven and not how heaven goes." In separating his faith from his astronomy, Galileo concluded, "The motion or rest of the earth or the sun are not articles of faith. . . . The primary purpose of the Holy Writ is the worship of God and the salvation of souls." Looking back on the Galileo affair Cardinal Poupard states, "Galileo's judges, incapable of dissociating faith from an age-old cosmology, believed quite wrongly that the adoption of the Copernican revolution, was such as to undermine Catholic tradition." Recasting this insight today, could it be that Christians wrestling with biological evolution are having difficulty "dissociating faith from an age-old biology?" I believe that this is the main issue in the modern origins controversy. But once we recognize that statements about living organisms in Scripture are incidental, accommodated and ancient, another opportunity appears to recast words of the Catholic tradition:

The intention of the Bible is to teach us
that God is the Creator,
and not how the Father, Son,
and Holy Spirit created. †

Galileo citations from Maurice A Finocchiaro, *The Galileo Affair* (1989), 87-118.

Pope John Paul II, "Scripture and Science" *Origins: CNS Documentary Service* 11 (15Oct 1981), 279; "Lessons of the Galileo Case," *Origins: CNS Documentary Service* 22 (1992), 372.

Cardinal Poupard, "Galileo: Report on Papal Commission Findings," *Origins: CNS Documentary Service* 22 (1992), 373.