Early Modern Catholic Defense of Copernicanism: The Jesuits and the Galileo Affair
Author(s): Nicholas Overgaard
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Nicholas Overgaard

“Obedience should be blind and prompt,” Ignatius of Loyola reminded his Jesuit brothers a decade after their founding in 1540.1 By the turn of the seventeenth century, the incumbent Superior General Claudio Aquaviva had reiterated Loyola’s expectation of “blind obedience,” with specific regard to Jesuit support for the Catholic Church during the Galileo Affair.2 Interpreting the relationship between the Jesuits and Copernicans like Galileo Galilei through the frame of “blind obedience” reaffirms the conservative image of the Catholic Church – to which the Jesuits owed such obedience – as committed to its medieval traditions. In opposition to this perspective, I will argue that the Jesuits involved in the Galileo Affair3 represent the progressive ideas of the Church in the early seventeenth century.

To prove this, I will argue that although the Jesuits rejected the epistemological claims of Copernicanism, they found it beneficial in its practical applications. The desire to solidify their status as the intellectual elites of the Church caused the Jesuits to reject Copernicanism in public. However, they promoted an intellectual environment in which Copernican studies – particularly those of Galileo – could develop with minimal opposition, theological or otherwise. In this way, the Jesuits’ affiliation with Copernicanism demonstrates their attempts at integrating Galileo’s new science with the traditional doctrines of the Church.

To begin, the Aristotelian methodology according to which the Jesuits interpreted the heavens in the late sixteenth and early seventeenth centuries generated a hesitant approach to Copernican astronomy among the Jesuits. For example, Cardinal Robert Bellarmine evaluated theories of heliocentrism through the Aristotelian tradition, according to which he understood nature through the unaided senses. In observing the heavens with the naked eye, Bellarmine “[experienced] that the earth stands still and that the eye is not in error when it judges that the sun moves.”4 Since the sun appears to circle the earth once per day, Bellarmine was hesitant to accept the sun-centric propositions of Copernican

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3 The inquisition against Galileo is often divided into two phases: the trials of 1616 and those of 1633. My essay focuses on the events leading up to and includes the trials of 1616 because the Jesuits’ attitude towards Galileo altered significantly by the 1620s.
astronomers. The fact that confirmation of Galileo’s evidence in support of heliocentrism required a telescope as an aid to the senses placed the Jesuits and Copernicans at methodological odds. Albert Van Helden demonstrates the mysticism that surrounded the observational improvements of the telescope to contemporary astronomers, describing how it “made hitherto invisible things visible.” Not only the Jesuits but also astronomers across Europe reacted with suspicion towards the truthfulness of observations through Galileo’s telescope. Galileo’s methodology warranted such suspicion, especially in its foreignness to the Aristotelian tradition.

Although the Jesuits eventually agreed that Galileo did not deceive astronomers through his telescopic observations, they continued to oppose the epistemological conclusions of heliocentrism. Since Copernican astronomy challenged Catholic conceptions of the organization of the universe, the Jesuits rejected its epistemological conclusions. Commenting on the treatises of Galileo and another astronomer, Paolo Antonio Foscarini, Bellarmine encouraged their research on the condition that they limit themselves “to speaking suppositionally and not absolutely.” In the context of Jesuit natural philosophy, the Latin *ex suppositio* refers to a conclusion that is not demonstrative of *scientia* or knowledge of truth. In this sense, “speaking suppositionally” was a philosophical end for Jesuits that did not bear the same absolute truths about nature as other disciplines such as mathematics. Consequently, existing Jesuit epistemologies contradicted those Galileo and other Copernicans sought to develop, preventing the Jesuits from embracing heliocentrism as the truest way of structuring the universe.

Methodologies and epistemological implications aside, the Jesuits nevertheless valued Copernican astronomy for its practical uses to mathematicians in research and teaching. Mordechai Feingold approaches the influence of Copernican astronomy on the Society of Jesus from the perspective of Jesuit mathematicians. According to Feingold, mathematicians were eager to include the doctrine of Copernicanism in their classrooms and in their personal research. In fact, Bellarmine trusted that professors of mathematics would adhere to the *ex suppositio* uses of Copernican astronomy while benefiting from its convenience with regards to calculations. He expected that books defending Copernican astronomy would “have a note added to the effect” that Copernican astronomy would be used only to “save appearances.” The sufficiency of adding a “note” suggests that Bellarmine did not consider the epistemological and cosmological implications of Copernican astronomy as impeding on the achievement of salvation. Rather, the convenience with which Copernican astronomy helped mathematicians – like those at the Collegio Romano – with their calculations proved to be of practical

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6. Van Helden, 112.

7. Bellarmine, “Bellarmine to Foscarini,” 67. It is tempting to find the word “suppositionally” synonymous with “hypothetically” and thus to suggest that Bellarmine encouraged Galileo to develop a hypothesis and by extension a scientific method. However, due to the problems translating *ex suppositio* to “hypothetical” in English, I am not convinced that Bellarmine intentionally guided Galileo in this direction.


value to philosophers. In desiring to keep Copernican astronomy books in circulation, Bellarmine likely felt that the aspects of its doctrines in question would not develop a strong following among contemporary astronomers and professors of mathematics.

Despite such practical values, pressure from a rival order, the Dominicans, hindered the openness with which the Jesuits could apply Copernicanism to their mathematics. Following the truce between the Dominican order and the Jesuits concerning the *de auxiliis* controversy in 1607, the Jesuits sought to reassert their status as the intellectual elite of the Catholic Church. Conversely, as the intellectual elites of the Church during the late medieval period, the Dominicans preferred a contemplative approach to intellectual studies. In a consultants’ report, they declared heliocentrism “foolish and absurd in philosophy.” Consequently, an institution such as the Dominican order could direct official Church policies in their favour and in opposition to the interests of a rival order such as the Society of Jesus. The potential influence of the Dominicans’ report caused the Jesuits to re-evaluate the consequences of their position on Copernican astronomy.

One such consequence was the potential hindrance to the Jesuits’ status as the intellectual elites of the Church. As William Carroll mentions, professors at the Collegio Romano were unique for incorporating a Copernican-influenced mathematical approach to philosophy in their lectures. The Jesuits presumably valued and encouraged the prestige attached to their universities for it attracted wider audiences of students. In order to preserve such prestige and avert a loss of students to Dominican universities, the Jesuits required some leniency in terms of their approach to Copernican astronomy. In this sense, the Jesuits’ acceptance of the condemnation of Copernicanism must have been unwilled, but necessary to preserve the intellectual superiority of the Society as an institution.

In order to reinforce their loyalty to the Catholic Church during the Galileo Affair, the Jesuits publicly protected the Church’s interpretive authority over scripture. Central to Catholic theology was the understanding that the Church and its official representatives were the sole interpreters of the Holy Scripture. In distinguishing between “figurative” and “literal” interpretations of scripture, Bellarmine clarified that scripture “ought not to be explained by the individual mind but by the inspiration of the Holy Spirit [which] is found in the Church.” In denying scriptural interpretations of the “individual mind” in favour of those of the “Holy Spirit,” Bellarmine reinforces his and the Jesuit position to oppose

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the Protestant confessions and defend that of Catholicism. In all senses of the matter, Jesuit theology agreed with broader Catholic theology.

Additionally, in recognition of the influence the Society held in educating Catholic minds, the Jesuits took full responsibility for ensuring that their teachings agreed with official interpretations of scripture. Jesuits who taught “novelties” or individual interpretations of scripture would “be removed from their teaching positions...even in the middle of a course.” The Jesuits intended such punishments to dissuade overly ambitious Jesuit doctors from spreading a non-Catholic confession of Christianity. The strict reinforcement of Thomism in theology and Aristotelianism in philosophy by General Aquaviva in 1611 was warranted in the sense that it preserved the Church’s trust of an order that required engagement in the vita activa to preach Catholicism to people in Europe and around the world.

Despite their public opposition to Copernicanism, the Jesuits continued to encourage Copernicans, namely Galileo, to defend Copernican doctrines by identifying the lines along which the Church would accept Copernican astronomy. In his letter to Foscarini, Bellarmine suggested that he could be convinced of heliocentrism’s real philosophical nature, writing, “I will not believe that there is such a demonstration, until it is shown to me.” Preceding the assertion of his receptivity towards demonstrations of heliocentrism, Bellarmine cautioned Foscarini and Galileo not to accuse theologians of “false” understandings of scripture and instead to explain “with great care” that theologians “do not understand them.” Since Bellarmine had recognized that Copernican astronomy’s irreconcilability with contemporary interpretations of scripture concerned the Church to a great extent, he explained how to engage in discussions of scriptural interpretations with theologians. Essentially, Bellarmine considered the possibility that a Catholic natural philosopher outside the Society of Jesus could cause the Church to reinterpret scripture accordingly. Similarly, Richard Blackwell points out that Bellarmine also believed that “two truths cannot conflict;” if astronomers were to establish unquestionable demonstrations of heliocentrism, Catholic theologians would be forced to reinterpret scripture in order to prevent theological and philosophical truths from conflicting. In essence, Bellarmine recognized that current interpretations of scripture reflect contemporary understandings of the universe; as contemporary understandings of the universe evolved, interpretations of scripture will have evolved as well. As a result, Bellarmine encouraged Galileo to pursue demonstrations of heliocentrism with the understanding that a re-interpretation of scripture, although difficult, was possible.

16 Bellarmine, “Bellarmine to Foscarini,” 68. The phrase “until it is shown to me” is of much contention to scholars of the Galileo Affair. To be clear, I do not think that Bellarmine was secretly a Copernican. However, I think he valued certain aspects of Copernican astronomy and believed that Copernicanism could be reconciled with scripture if it were approached with the utmost respect towards theologians and their interpretations of scripture.  
17 Bellarmine, “Bellarmine to Foscarini,” 68.
19 Interestingly, since the seventeenth-century, the Church has been convinced that the earth revolves around the sun and reinterpreted scripture accordingly. In other words, Bellarmine would prove to be correct, centuries after his death.
Since official Jesuit stances on Copernicanism prevented them from directly assisting Galileo in his research, the Jesuits alternatively exchanged theories and ideas in an intellectual environment that took potential improvements to contemporary understandings of the universe with serious consideration. For example, Bellarmine acknowledged that certain aspects of Copernicanism potentially improved current practices of mathematics. He wrote that “by assuming the earth moves and the sun stands still, one saves all the appearances better than by postulating eccentrics and epicycles.” Bellarmine implied that Jesuit astronomers’ current practice of “saving appearances” was imperfect. As a result, the Jesuits considered alternate ideas ex suppositio, including Copernicanism, a consideration in which Galileo’s theories could prosper in a contemporary scientific sense – that is, being rejected, accepted or improved on a philosophical basis. Moreover, Christopher Clavius’ position as the head of mathematics at the Collegio Romano enabled him to influence the academic environment in which the Jesuits were taught and in which they instructed others. In his teachings, he argued that “knowledge of the world had to be inferred from effects.” For example, epicycles and eccentrics had to be inferred from the observation of the current positions of the planets. Clavius guided the intellectual attitudes of his students and of other Jesuits towards Galileo’s Copernican theories in a considerate and respectful direction. Thus, Jesuits like Bellarmine and Clavius promoted a professional attitude towards Copernicanism that favoured Galileo’s pursuit of further observational evidence for heliocentrism.

On that note, Galileo’s exploration of Copernican astronomy led to many criticisms, particularly from theologians. Most famously, the Dominican Niccolo Lorini brought the initial unpopularity to Galileo’s Copernican theories by accusing Galileo of heresy. Yet, in the months building up to the 1616 condemnation of Copernicanism, the Jesuits defended Galileo by challenging the accusations of heresy against him. Bellarmine notably defended Galileo in 1616. After inquisitors had accused Galileo of endorsing heretical ideas, Galileo produced a document in Bellarmine’s handwriting which stated, “Galileo has not abjured in our hands, or in the hands of others here in Rome.” The certificate not only provided Galileo with legal protection by a Cardinal of the Church, but it also provided Galileo’s writings with the defense of a reputable contemporary expert of scripture. Essentially, Bellarmine protected Galileo from accusations of heresy because he felt the accusations were unwarranted. In fact, in his letter to Foscarini, Bellarmine defined the precise beliefs which warrant accusations of heresy. He wrote as an example that “it would be heretical to say that Christ was not born of a virgin.” Perhaps Bellarmine sought to warn Foscarini and Galileo of which Catholic doctrines not to contradict. Furthermore, Bellarmine’s explanation of heretical beliefs excludes any reference to astronomy, implying that theories of Copernican astronomy as expressed by Foscarini and Galileo were not heretical. For this reason, he came to Galileo’s defense in 1616.

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20 Bellarmine, “Bellarmine to Foscarini,” 67 [emphasis added]. The phrase “one saves all the appearances” refers to the process of calculation in astronomy, such as calculating the position of the planets.
21 Feldhay, *Galileo and the Church*, 217.
24 Bellarmine, “Bellarmine to Foscarini,” 68.
By focusing on the Jesuits’ decision-making process leading up to the 1616 inquisitions against Galileo, I suggest that the Jesuits, in reference to Loyola, did not “blindly obey” Church authorities and were not the Counter Reformation soldiers of the pope. Alternatively, the Jesuits’ perceptive yet cautious approach to Copernican astronomy represents the attitude of early modern Catholic thinkers. Rivka Feldhay demonstrates this progressive attitude in her interpretations of the influence of humanistic studies on Jesuit teachings. She notes how the Jesuits’ practical attitude towards natural philosophy and active participation in the conversion of populations to Catholicism represents their “deviation” from the medieval traditions of the Catholic Church. In this sense, the Jesuits developed a perceptive attitude by observing the changes to Christianity since the renaissance in Italy and the reformations in Northern Europe and adjusting their approach to religious matters accordingly. Yet, the Jesuits remained cautious by converting non-Christians and Protestants to a hierarchical Catholicism similar to that of the medieval period. In contrast to the medieval Church’s emphasis on contemplation and obsession with the afterlife, such Jesuit attitudes contributed to the gradual improvement of Catholic thought.

In the context of the Galileo Affair, the commentary of leading Jesuit mathematicians on Galileo’s observations of the moon in 1611 most effectively represents this changing Catholic attitude. The mathematicians agree that the “great inequality of the Moon cannot be denied.” However, they also mention that Clavius “believes that the lunar body is not of uniform density and has denser and rarer parts.” Rather than disproving Galileo’s observations of the “inequality of the Moon,” the Jesuits accepted that new observations changed their understanding of the heavens. Indeed, the inclusion of Clavius’ interpretation of this “inequality” demonstrates the caution with which Jesuit mathematicians approached such changing ideas. However, the certainty with which the Jesuits confirm that at least part of Galileo’s observations “cannot be denied” represents an acceptance of changing ways of thinking about the heavens. Therefore, the Jesuits’ acceptant attitude towards astronomy reflects the growing practical attitudes of Catholics active in the mortal world during the early modern era.

Furthermore, the Jesuits’ incorporative approaches to Copernican astronomy suggest that the inquisitions against Copernican astronomers occurred during a period of integration of science with religion rather than a period of censorship. As seventeenth-century natural philosophers and theologians gradually developed an interest in Galileo’s theories, they wrote their own commentaries and exchanged letters concerning Copernican astronomy. Bellarmine wrote that he developed an interest in Copernican astronomy “because [he heard] different opinions.” Bellarmine’s interest in “different [Copernican] opinions” suggests that his contemporaries approached Copernicanism from a variety of perspectives. In order to make sense of the newly popularized Copernican ideas and to reconcile Galileo’s observations with Jesuit understandings of the heavens, Bellarmine ignored his prejudices against these “different opinions.” Instead, he sought the Jesuit mathematicians to take the “different opinions” into consideration in offering their interpretation of Copernican astronomy. Even a

25 Feldhay, *Galileo and the Church*, 123.
decade later, the Jesuits maintained the position of integrating Copernican astronomy with contemporary understandings of the universe. For instance, the Jesuits offered Galileo a role in developing a new model of the universe which they based on the astronomical models of Tycho Brahe.\(^{28}\) Though rejected by Galileo, the Jesuits’ offer demonstrates a willingness to agree to a middle ground between geocentrism and heliocentrism. Since the Jesuits felt conflicted over their dedication to preserving the authority of the Church and the truthfulness of the implications of their observations, they sought to utilize the Tychonian model of the universe as a first step towards reconciling both this internal conflict and its implications on Jesuit natural philosophy.

All in all, the Jesuit engagement in the Galileo Affair is best situated in a period that John O’Malley titles “Early Modern Catholicism.” O’Malley notes how, the historiography tends to represent the Jesuits as the “anti-Protestant” order of the Counter Reformation. At the same time, he problematizes this perspective by arguing that “the degree to which [anti-Protestantism] was operative varied from place to place, from ministry to ministry, from period to period.”\(^{29}\) My research into the Jesuits and the Galileo Affair has led me to the same conclusions: while the Jesuits largely benefited from the introduction of Copernican astronomy to their research and teachings, their allegiance to the Jesuit institution and by extension their obedience to the Church caused them to abide – however grudgingly – by the Church’s condemnation of Copernicanism. In some senses, the anti-Protestant attitude, or in the case of the Galileo Affair, the anti-Copernican attitude, proved to be strong among the Jesuits. In others, particularly in their considerate reception of Copernicanism in Rome’s intellectual circles, the Jesuits presented almost the opposite: a sort of pro-Copernican attitude. Early Modern Catholicism most effectively conveys, in accordance to O’Malley’s description of the term, “both the change and continuity”\(^{30}\) of, in my opinion, the Jesuits’ engagement with Copernican astronomy. In the context of Early Modern Catholicism, Jesuit obedience was not so much “blind” and strict as it was subjective – subjective along the same line as those observations of shining lights in the sky.

**Bibliography**


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\(^{28}\) David Wootton, *Galileo: watcher of the skies* (New Haven: Yale University Press, 2010), 162. Simply put, Tycho’s modelled the universe halfway between geocentrism and heliocentrism: the Earth remained at the center of the universe with the Sun rotating around it, while the other planets rotated around the Sun.


\(^{30}\) O’Malley, 141.


