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When faith and science collide:To what extend were religious ideas central to the first trial of Galileo?

Seminar paper

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Throughout the centuries, the condemnation of Galileo Galilei (1564-1642) by the Roman Inquisition has sparked a number of controversial interpretations. In this essay, I will try to assess if religious ideas were central to his first trial (roughly from 1611 to 1616), or whether personal grudges and ecclesiastical power politics were at the root of Galileo's persecution.

In the course of his second trial in 1633, Galileo was accused of holding, defending and teaching Copernican views, deemed heretical by that point after Copernicus' *De revolutionibus* had been placed on the Index of Forbidden Books in 1616. At that time, seventy years had passed without the Inquisition taking further offence at its publication. It seems as if initially the trial was not a crusade against scientific independence, although it is often made out to be today. As Mariano Artigas argues, "Galileo's writings arguing for the compatibility between Copernicanism and the Scriptures had not been printed at the time of the trial, and were known by very few people." Someone must had steered the attention of the Catholic Church in Rome to the issue of heliocentrism and its main advocate in Florence, Galileo. And in fact there was a group of astronomers and theologians which worked against the scientist with startling vehemence. One of its members, a Dominican named Niccolò Lorini, was responsible for Galileo's first contact with the Inquisition in 1615. On the 7 February of that year, Lorini filed a complaint on the grounds of a letter Galileo had addressed to his friend and fellow scientist Benedetto Castelli, only two weeks after another Dominican, Tommaso Caccini, publicly accused Galileo and his disciples of heresy. Why was Galileo, a formerly "hardworking, low-paid, disgruntled, relatively undistinguished professor at a second-rate university" (McClellan and Dorn, 224),

now being confronted with the wrath of the Dominicans at Florence? The turning point in Galileo's life was his contact with the telescope in 1609. After a number of significant astronomical discoveries he resigned his position in Padua and moved to Florence in 1610. Yearning for a secure government position, he had dedicated his *Sidereus nuncius* to the Grand Duke Cosimo II de' Medici (Gingerich, 98). Galileo enjoyed a newfound fame which gave him the opportunity to influence even the highest ecclesiastical circles, as his triumphal trip to Rome in 1611 showed. Although he had never been particularly cautious in asserting his claims, Galileo now felt confident enough to throw all his support behind the Copernican system (Gingerich, 110).

Being a contentious personality, Galileo soon became embroiled in disputes with adversaries in Florence (McClellan and Dorn, 227). While his Aristotelian opponents remained rooted in universities, Galileo, backed by the Medici patronage, sought to advocate his views in public. He quarrelled with one astronomer in particular, Ludovico delle Colombe, over the physics of floating bodies (McClellan and Dorn, 228). Colombe, born in Florence in 1565 and elected to the Florentine Academy in 1598, enjoyed a reputation as a philosopher and astronomer hardly justified by his publications (Drake, 445). In their correspondence, Galileo repeatedly ridiculed him, stating that Colombe's views were "something not believed up to now by any mathematician, nor by any philosopher of moderate intelligence" (Drake, 215). In order to get back at Galileo, Colombe teamed up with some Dominican theologians and founded a group called the "Pigeon League" in 1610 (*colomba* means 'pigeon' in Italian). During one of their meetings in 1612, one man, probably Colombe, asked that a priest denounce Galileo from the pulpit (Drake, 180). Promptly, toward the end of 1612, a first attack is launched on Galileo by the Dominican prior of the Church in

Fiesole, Niccolò Lorini, but in the face of an uproar among the friends of Galileo Lorini quickly apologised (Van Helden, 1995). Being already 68 years old at that point, Lorini's initial participation, as Drake argues, seems to have been more "incidental than malevolent" (197). He knew "nothing of astronomy" and "simply was against unorthodoxy of any kind".

One year later, the Tuscan court moved to Pisa. Being a lecturer at the local university, Galileo's friend Castelli was invited to dine with the Medici. During one breakfast, a heated discussion arose about a possible conflict between the Bible and heliocentric theory. Castelli was challenged to "defend the view that the Scripture raises no insuperable objections to the Copernican system" (Gingerich, 111). In his account of the meeting, sent to Galileo on 14 December 1613, Castelli alluded to a scriptural passage[1], which Galileo examined in his infamous reply to Castelli one week later. Therein Galileo claims that, while "the Holy Scripture can never lie or err", "nevertheless some of its interpreters [...] can sometimes err". He goes on to argue that "in the Scripture one finds many propositions which look different from the truth if one goes by the literal meaning of the words". Again, his confidence shows his conviction that " [we] must not fear any assaults launched against us by anyone, as long as we are allowed to speak and to be heard by competent persons". Maybe overestimating his standing in Rome, Galileo did not speak of the Copernican model as a viable mathematical hypotheses, but rather firmly argued for the "falsity and impossibility of the Aristotelian and Ptolemaic world system", thereby distancing himself from Osiander's preface[2] which cautiously favoured the hypothetical nature

[1] "And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies. Is not this written in the book of Jasher? So the sun stood still in the midst of heaven, and hasted not to go down about a whole day" (Joshua 10, Verse 13, from the King James Version, (http://www.law.umkc.edu/faculty/projects/ftrials/galileo/scripture.html).

[2] "Beware if you expect truth from astronomy lest you leave this field a greater fool than when you entered" (Gingerich, 107).

of Copernicus' views. As far as theologians were concerned, this "route to sure knowledge" was the real issue of Galileo's trial, rather then simply defending the Copernican system (Gingerich 113). Although Galileo, as Alberto Asor Rosa (21) believes, was very prudent and cautious in wording the letter, he went far beyond what the Church was willing to accept. He was openly endangering the process of reconstruction of the Church's authority, which the counter-reformation had started only a few decades before. This, however, might not even have been a problem for Galileo, had it not been for the ongoing activities by the Pigeon league.

On 20 December 1614, Tommaso Caccini publicly attacked Galileo from the pulpit in Florence. The text assigned for exposition on that day was precisely the passage Galileo had mentioned in his letter to Castelli. This event constituted the beginning of public onslaught against Galileo after two years of private intrigues (Drake, 239). But why did Caccini attack Galileo? The works of the young Dominican, who had fallen in with the "Pigeon League" in 1611, were "derivative and third-rate" (Van Helden, 1995). As Van Helden argues, the "scandal-maker" Caccini had aspirations in Rome, but was unsuccessful in obtaining patronage of Cardinal Maffeo Barberini, who played an important role in the Galileo affair as Pope Urban VIII. So Caccini tried to make personal profit out of denouncing Galileo.

This attack by the League was then intensified by the above-mentioned Niccolò Lorini, who filed a complaint to the Inquisition in Rome, stating that Galileo and his disciples spoke "disrespectfully of the ancient Holy Fathers" and "trample[d] underfoot all of Aristotle's philosophy". As Drake (240) argues, Lorini, who had no personal interest in attacking Galileo, acted because "colleagues at the Dominican convent in Florence led him to believe it contained erroneous propositions ".There are allegations that the copy of the Castelli letter he attached to his complaint was

manipulated in order to make Galileo appear in a bad light. The Inquisition, however, was rather unimpressed. A consultant's report only maintains that the letter, while using "some improper words", "does not diverge from the pathways of Catholic expression". Castelli wrote to Galileo that there was no great excitement at Rome over Caccini's attack from the pulpit (Drake, 244). It even seems as if the trial could have ended at this point.

In March 1615, however, Caccini went to Rome out of his own accord in order to denounce Galileo. In the course of his deposition, he mentioned two other clerics, Gianozzi Attavanti and Ferdinando Ximenes, who were dragged in front of the Inquisition in November 1615. Their depositions show how ignorant these men were about Galileo's views (Van Helden, 1995). Ximenes admitted to never having met Galileo in person and appeared to have no other recollection of Galileo's word. Attavanti defended Galileo, but also showed little knowledge of Galileo's theory. It seems as if the bulk of the accusations were based on hearsay and not on Galileo's actual writing. His original views had been distorted, and the allegations had moved away from a scientific debate to religious issues, for instance claiming that Galileo had asserted that God is "but an accident" and he cried, and that miracles are not true.

Even at this point Galileo could maybe have got out of the affair safely, had he kept quiet. A friend told him that only four or five people were bothering with the Copernican matter in Rome (Drake, 249). But to make matters worse, Galileo went to Rome in December 1615 to defend himself in person, although Bellarmine had also cautioned him to keep quiet in April 1615 (Drake, 240). He was "aggressively lobbying on behalf of the heliocentric system", "convinced he could single-handedly sway the Catholic leaders to his view" (Gingerich, 114). In Rome Galileo also learned that the main charge against him was not that he supported Copernicanism, but rather

that his enemies presented him as suspect of not being a good catholic (Artigas, 2002). There was animosity against Galileo, especially on behalf of the Dominicans. In the end, the Church found it prudent to condemn Copernican teaching to avoid confusion (Gingerich, 113). Thus, in the beginning of 1616, events unfolded rapidly. In February, the Inquisition declared that viewing that the Sun is the centre of the universe or the earth moves was absurd and formally heretical. Bellarmine met Galileo and, allegedly, warned him not to hold, teach, or defend Copernican theory. In March, Copernicus' book was placed on the Index. Galileo was cooperative in accepting the warning, but ultimately, he was silenced (Gingerich, 114). While religious ideas definitely played a role in the first trial, they alone cannot explain why the Inquisition prosecuting Galileo. His personality and personal animosities had influenced the affair as much as the revolutionary nature of his findings.

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