Multiple Conflicts in the Word of Galileo Galilei: The Historiography of the Galileo Affair

Historians traditionally have cast the Galileo affair in terms of guilt or innocence, asking whether or not Galileo was wrongly convicted.¹ Because the heliocentric view, which Galileo taught and for which he was tried, has since been proven correct, many historians have labeled Galileo as a martyr for scientific truth against religious oppression. According to Maurice A. Finocchiaro, “the most common interpretation of the event continues to be cast in terms of what it shows about the relationship between science and religion.”² Historians with a bias in favor of Galileo or one favoring the Roman Catholic Church in this debate assumed a conflict between science and religion. Historians molded the relationship between science and religion, or between Galileo and the Roman Catholic Church, into a model consisting of battling combatants.³ Finocchiaro’s compilation of primary source documents has been called “a very useful collection...[that] should provide an interesting and well rounded introduction to Galileo studies in both secondary and post-secondary institutions in the English-speaking world.”⁴ Finocchiaro’s purpose was to fill the void within the collection of primary source material in order for students of the Galileo affair, especially English speaking students, to study this “controversial and important topic.”⁵ Perhaps Finocchiaro’s purpose was also to encourage scholars to expand the already lengthy historiography of the Galileo affair, which Finocchiaro considered to be an “oversimplification.”⁶ However, the conflict between Galileo and the Church has been modeled as a complex relationship. The political struggle within the Church, the debate between Galileo and other scientists or philosophers, the Catholic Church’s position as a social and authoritative institution, were all contexts in which the conflicting narrative of the Galileo affair has been studied since 1980.

Although conflict played a dominant role in the Galileo affair for most historians, the conflict took on

³ Drake, 2.
⁵ Finocchiaro, Galileo Affair, ix-x.
differing forms. Finocchiaro lumped historians, like Stillman Drake and Rivka Feldhay, into the category of those supporting a “conflict thesis.” However, while Drake and Feldhay wrote with an eye toward conflict, the conflict took on dramatically different roles. Within the historiography of the Galileo affair, varying degrees of multiple conflicts have been illustrated.

Three points of contention have drawn attention by those writing on the Galileo affair. The role the Church played in the affair, the role the Jesuits in particular played in the case, and the amount of zeal Galileo felt for Copernicanism must be addressed for an insightful study of the events. Personal conflicts, such as the one between Galileo and Cardinal Bellarmine, were at the heart of the case for historians like Stillman Drake, while others, Rivka Feldhay for example, saw only a large organizational structure, the Church, at odds with itself. Some suggested that the changing roles of institutions, such as the Roman Catholic Church during the Reformation and Counter Reformation, were the main cause of the Galileo affair. The thesis of a historian studying the Galileo affair was dependent on his/her treatment of these points of contention. The purpose of this essay is to show how the broad categorization of historians’ theses into a one group called the “conflict thesis” was, in itself, an oversimplification, because the historians’ works that will be examined here were not meant to be definitive histories of the Galileo affair, but rather, they were meant to expand the historiography. By building on the numerous historical works over the years, historians, whom Finocchiaro would group into the conflict model, have expanded our understanding of the worldview and society of Europe at the dawn of the Scientific Revolution.

The Roman Catholic Church played several roles in the scholarship of the Galileo affair. Traditionally, the Church has been portrayed as an institution bent on censuring Galileo. This is the position offered by Giorgio de Santillana (1955) and Jerome Langford (1966). Langford argued that the conflict was not inevitable; Galileo was allowed to teach Copernicanism as a theory but not as proven truth. Santillana’s and Langford’s respective arguments, which will be considered the “traditional”

---

9 Drake, 61.
11 Langford, xii.
stance, have been challenged. A new thesis that began to circulate in the late 1970’s argued that the conflict was between “personal foes of Galileo, and an ambitious priest,” and not with “responsible Church officials.” Therefore, based on the hypothesis that individuals within the Church were primarily responsible, the Galileo affair may not be studied as a condemnation of the Church alone. The conflict lied within the differing Church “traditions.” The Church was cautious about accepting ideas held only by specialists, which “could not be related to reality without further ado.” The Church, as a social and political institution, was similar to previous traditional governing bodies or modern scientific institutions. A modern day Galileo would find that his ideas “must fit the ideology of the Institute that is supposed to absorb it and must agree with the ways in which research is done there.” The conflict from this perspective pits individuals against Galileo and places the Church in a mediating position. According to Drake, the conflict was not between science and religion but between science and philosophy. This conflict did not exist before Galileo; Galileo created the rift. After all, as Lindberg and Numbers put it, “it was not a matter of Christianity waging war on science. All the participants called themselves Christians and acknowledged Biblical authority.” However, this is not to say that the Catholic Church was portrayed in Drake’s argument as having played a completely positive role in the Galileo affair. According to Drake, the Church has paid greatly for following Galileo’s opposition. However, the argument was a divergence from the traditional view of the Catholic Church as an institution battling to keep scientific truth hidden. Feyerabend summarized his breakdown of the traditional view of the Catholic Church: “the position of the Catholic Church was stronger and more humane than is generally assumed,” because the traditional view of the Church as an oppressor was too one-dimensional. The Church sought scientific ideas and theories; the Church did not shun science.

---

12 For another example of an argument against the traditional approach see David C. Lindberg and Ronald L. Numbers, “Between War and Peace: A Reappraisal of the Encounter between Christianity and Science,” Church History Vol. 55 No. 3 September 1986. Reprinted with permission, and minor editorial correction and revision by the American Scientific Affiliation online at <http://www.asa3.org/asa/PSCF/1987/PSCF9-87Lindberg.html>. Though their arguments are not completely in line with those such as Drake or Fayerabend, but they do argue against the traditional approach.
13 For Example see Stillman Drake, Galileo; or Paul Fayerabend, Farewell to Reason,
14 Drake, 61.
16 Ibid, 249.
17 Ibid, 254.
18 Drake 66.
19 Lindberg and Numbers.
20 Drake, 66.
21 Fayerabend, 16.
Somewhat of a synthesis between the Church’s involvement in the affair as a political institution and the individuals that were in opposition to Galileo was introduced in Pietro Redondi’s book *Galileo Eretico (Galileo Heretic)*. Redondi did not agree with Drake, Fayerabend, or others, in that individuals were responsible for the affair without the guiding force of the Church as an institution. Redondi asserted that the episode was not a personal matter between any individual, or group of individuals and Galileo. The Catholic Church’s place in the seventeenth century political sphere and its place as an authoritative figure in society, were at the heart of the conflict. Redondi’s sentence was evidence that the trial and other events that have commonly become referred to as the Galileo affair was not a personal fight between Cardinal Bellarmine and Galileo, or between Galileo and Pope Urban VIII, but it was part of a larger struggle within a period of “controversial and polemical theological speculation.” It should be noted that historians did not accept Redondi’s work favorably, but it did provide a starting synthesis between the traditional view and the hypothesis proposed by Drake and others.

Annibale Fantoli, in *Galileo: For Copernicanism and for the Church* agreed with others that the Church abused its power in both the 1616 Decree of the Index and Galileo's sentencing in 1633. Fantoli found that the Church’s position regarding Galileo the individual, not his science, was similar to the way Redondi saw the situation. However, Fantoli elaborated upon Redondi’s argument. Galileo was well known throughout Europe. His support by the Church was known. Galileo had established himself as a mathematician and also proved that he was a genuinely devout Catholic. The Pope and Cardinal Bellarmine consulted and gave Galileo a private warning not to teach Copernicanism in 1616. The 1616 decree was meant, according to Fantoli, to silence Galileo “once and for all but without wounding his reputation.” Thus, the Church and Galileo were not entirely at odds with each other, but in fact, Church officials at the highest levels sought to protect Galileo if he would stop teaching the heliocentric view.

---

23 Redondi, 324.
26 Fantoli, 178.
More recently, Rivka Feldhay reasserted that the Church as an organization was the single cause of the Galileo affair, though not in the traditional sense asserted by Draper and White. A struggle for supremacy among intellectual elites within the Church caused contention. Neither Galileo nor his scientific view was responsible for the outcome. Galileo’s arguments were merely scientific ideas debated among other disputed theological issues. According to this hypothesis, the Church was an institution split not only by the Protestants during the Reformation, but also by an internal political struggle for elite status between the Dominicans and the Jesuits.27

Exactly what role the Catholic Church played in the Galileo affair is a point of contention. To Drake and Fayerabend the Church as a whole was not responsible for the ordeal, but rather, it was individual zealots within the church that received that condemnation. The politics at play during the seventeenth century, according to Redondi, created a world of secrets and suspicion. The Church’s division amongst the Dominicans and the Society of Jesus caused internal division, and thus, the episode was a power struggle in which Galileo was an unwitting participant. In many traditional accounts the Jesuits were portrayed as the enemy to Galileo.28 Exactly what role they played is a point of contention.

Feldhay readily admits that her work on the history of the Dominican intellectual and institutional organizations was “very preliminary” in nature. She noted, however, that in order to understand the intellectual world of the sixteenth and seventeenth centuries, one must study the “intellectual and institutional framework in which the Dominicans operated” to which she adds, “no monograph has been written about Dominican education.”29 Her work came largely from original documents, including the Constitutiones printed in 1566, 1607, and 1650.30 Feldhay suggested:

The Dominican cultural orientation remained anchored in the medieval outlook and its emphasis on the vita contemplativa. Institutionally, they favored isolation from the secular world and its influences. Religious fanaticism mounted as they ordered aggressive tactics against anyone suspected of heresy. Intellectually, studies remained oriented towards the contemplative life. Freedom of opinion was curtailed as they impose strict adherence to Thomistic theology and under severe penalty prohibited any deviation from Thomistic philosophy.

28 Feldhay 245.
29 Ibid, 94
30 Ibid.
The Dominicans transformed Thomism from a religious-intellectual system into a binding doctrine, and in so doing conferred on it a status which it had never enjoyed in Catholicism before the Counter Reformation.\textsuperscript{31}

According to Feldhay, the Dominicans became a group unfriendly to new learning. This shift in the educational practices of the Dominicans allowed for “an alternative elite” of intellectuals to gain power and status and eventually challenged the Dominicans.\textsuperscript{32} The relationship of the Jesuits and Dominicans, according to Feldhay, was an extremely complicated one that must be incorporated into a study of the Galileo case. The Church at the time of Galileo, to Feldhay, was an institution in turmoil from inside and outside of the Church. Galileo therefore, was a prominent person caught in this turmoil.

As previously mentioned, the role of the Jesuits was normally seen as a force in opposition to Galileo.\textsuperscript{33} Redondi echoed this traditional interpretation and asserted that the Jesuit idea of science was in combat with Galileo’s science into numerous passages. However, a new trend led by William Wallace put the role of the Jesuits as one that was more in tune with the modern science employed by Galileo.\textsuperscript{34} To Feldhay, it was a political decision late in the Galileo case that turned the Jesuits away from Galileo and forced them to side with their opponents, the Dominicans.\textsuperscript{35}

The Jesuits differed from their Dominican opponents in their view of society and the place of intellect and education. “The Jesuit orientation was directed towards the world, whereas the Dominican orientation aimed at preparing the soul for a separation from the world.”\textsuperscript{36} This, according to Feldhay, explains why the Jesuits were concerned with non-theological studies that were traditionally considered “lacking in value.”\textsuperscript{37} The Jesuits viewed the study of these subjects in connection with the “ultimate aim of society” which was “the quest for salvation.”\textsuperscript{38} The Jesuits, however, were not seeking scientific proof of God or the miraculous. Ultimately, they operated in two spheres. The Jesuits created an intellectual bridge by somewhat combining the two spheres of religious contemplation and secular intellect.\textsuperscript{39} This also had an effect on the Jesuit’s worldview and their place within secular society. Feldhay stated, “at the dawn of the modern era the Jesuits became a group aspiring to an intermediate

\begin{itemize}
\item \textsuperscript{31} Ibid, 109.
\item \textsuperscript{32} Ibid, 109-110
\item \textsuperscript{33} Ibid, 245.
\item \textsuperscript{34} Ibid.
\item \textsuperscript{35} Ibid.
\item \textsuperscript{36} Ibid, 123.
\item \textsuperscript{37} Ibid.
\item \textsuperscript{38} Ibid.
\item \textsuperscript{39} Ibid, 126-127
\end{itemize}
status between the world and the church which would allow them to play the role of the guardians of the frontiers.”

To other historians, Annibale Fantoli for example, the Jesuits played a slightly different role. According to Fantoli, “These Jesuits were neither ‘pure scientists’ nor for sure intellectual heroes.” The role played by the Jesuits, Cardinal Bellarmine in particular, has been greatly overstated, according to Fantoli. Fantoli specifically critiqued a statement by de Santillana that placed the sole responsibility of the decision in 1616 upon Bellarmine. To Fantoli, the Jesuits did not have the power that has been attributed to them and such arguments have been exaggerations. Stillman Drake supported this view, though not as pronounced. To Drake, the argument was between certain individuals and instead of being a large power play by the Jesuits. However, Galileo’s role in his own debacle should not be overlooked.

The zeal Galileo had for Copernicanism was, and continues to be, an interesting debate in the historiography of the Galileo affair. Galileo’s faith in Christianity and his faith in Copernicanism were contrasted within the scholarship. In traditional accounts, Galileo was regarded as a zealot for science. For Fayerabend, Galileo represented a “pushy and totalitarian” tradition in opposition to the Church. Both the traditional view of Galileo and Fayerabend’s slight revision were contrasted in other arguments. Galileo’s faith was an important aspect that motivated his life. The level of zeal for either side of the debate was an important aspect to understand the internal struggle for Galileo. According to Drake, “Galileo's role in that battle is widely supposed to have been that of hurling a defiant challenge to religious faith in the name of science.” With that assumption, Galileo's statements about Catholicism were considered not to be genuine. However, Drake rejected the idea that Galileo was a lifelong supporter of the Copernican system. In fact, Drake and others believed Galileo's zeal was “not for the Copernican astronomy, but for the future of the Catholic Church.” The traditional view of Galileo was based upon the studying of the published documents after “the wide breach between

---

40 Ibid.
41 Fantoli. 193.
42 Ibid.
43 Drake, 69.
44 Fayerabend, 249.
45 Drake, 1
46 Ibid, 6.
47 Ibid, 3
48 Ibid, 6.
religion and science had come to be accepted as a matter of fact.”49 The division of science and religion was not a part of the world of Galileo or the Galileo affair, but it was a product of nineteenth century history, when debates over creation influenced the history of science.50 Galileo was not a zealot for Copernicanism with a “faith that seems to verge on scientific dogmatism.”51 Some have taken this thesis so far as to assert that Galileo was more of a zealot for his faith than for science.52 Therefore, the conflict lied more in the mind of Galileo than in the external world. The traditional view of the conflict between science and religion would support the idea that Galileo struggled with a choice between his science and his faith. However, Galileo saw Copernicanism as a logical explanation of observations, and the Church as an institution that should have embraced an idea that explained God’s creation rationally.

Fantoli’s work was centered on this view of Galileo, and thus, the affair, from Fantoli’s perspective, was a more complex series of conflicts than previous historians have assumed. In Fantoli’s words, “Galileo was… neither a free-thinker who rose up against the ‘obscuranism’ of the church, nor a man weakened by the trial and condemnation to the point that he preferred to remain on the side of the Church even at the expense of abandoning his new view of the universe.”53 Fantoli analyzed Galileo's oft-cited “Letter to Christina of Lorraine” point by point. Galileo argued that the “Scripture can never lie or err.”54 Galileo stated, “the Holy Spirit was to teach us how one goes to heaven and not how Heaven goes.”55 However, science and religion were not separate to Galileo. Galileo did not condemn the Church's involvement in scientific inquiry; he believed that if Biblical statements are true and science is true, then both will coincide with each other.56 Fantoli portrayed Galileo not as an opponent of the Church but as an educator of the Church. Galileo sought to reconcile the differences between scientific and theological understanding by portraying both as equally true. Galileo sufficiently proved, to even his opposition, that he was sincere about his faith, “despite his

49 Ibid.
51 Redondi, 323.
52 Fantoli, xvi.
53 Annibale Fantoli, xvi; Drake, 5.
55 Ibid, 96.
56 Fantoli, 149.
astronomical ideas.” The condemnation of Galileo was, from this hypothesis, an abuse of power by the Catholic Church. Galileo, however, should not be viewed in the traditional sense as a martyr for science, but as one who sought to help the Church. Galileo ultimately succeeded, according to Fantoli, though recognition of this success (by the Church) came 350 years after his death.

Galileo’s view of the Church’s proper role is an interesting part of the debate because this focus allows one to get a glimpse into the mind of Galileo. Fantoli viewed Galileo as one who wished to educate the Church, not in theological matters, but Galileo wished to address the role that the Church should play as modern science began to rise.

Fantoli’s arguments were elaborations on previous arguments by historians like Stillman Drake and others. The traditional approach, according to Drake and those like Fantoli who followed this thesis of Galileo, was not representative of the personality of Galileo. Galileo did not divide science and the Catholic Church. Galileo, instead of creating a schism between science and religion, created a rift between modern science and philosophy. It was the philosophers, according to Drake, that sought to discredit Galileo by interjecting Biblical arguments, which Galileo “sincerely regarded as an impious action on their part.” The scientific community, which was made up of philosophers, again, as there was no division at this point, created the division between religion and science, a division that Galileo did not see. Galileo, according to this thesis, believed that theologians would “declare that the true sense of the Bible supported which ever astronomical hypothesis was verified by Nature.” The question of whether or not a particular Biblical passage declared an astronomical truth was handed to the philosophers instead of the scientists. The division that Galileo created was between the science of Galileo and the science of philosophers, exemplified by the decision to determine not whether a scientific statement was correct or incorrect, but to determine if the hypothesis could be entertained based on Biblical interpretations. The philosophers argued that a statement was not science if it contradicted the Biblical interpretation. Galileo, basing arguments on St. Augustine and Thomas

57 Ibid, 178.
58 Ibid, 352.
59 Ibid, 372.
60 Ibid, 352.
61 See Lindberg and Numbers.
62 Drake, 3.
63 Ibid, 7.
64 Ibid, 6-7
65 Ibid, 66; see also Fantoli, 149.
Aquinas, argued that all scientific statements should be entertained with the understanding that the interpretation of Biblical passages was made by imperfect human beings, but also asserted that matters of faith, like salvation for example, are not scientifically debatable questions.\footnote{Drake, 66.}

Drake represented Galileo’s view of the Church as one who wished the Church to disengage its devoutness in accepting “one astronomy against another.”\footnote{Ibid, 62.} Galileo did not blame the Church for his condemnation but instead “blamed only some wrong-headed individuals in the Church.”\footnote{Ibid, 92.} Drake asserted, “Galileo’s own conscience was clear both as a Catholic and as a scientist.” He continued to state that Galileo, though at times may have wanted to stray from his science, “he never so much as thought of turning his back on his faith.”\footnote{Ibid, 56.} Galileo sought to “prevent a mistake by the Church that would eventually tend to discredit its wisdom.”\footnote{Ibid.}

Drake’s thesis has been incorporated in other notable works. Fantoli, Feldhay and others have supported their respective theses based on Drake’s breakdown of the traditional view. The wedge that split modern science and religion was not Galileo. In some theories it was the philosophers that are responsible for the division.\footnote{See Drake; and Fantoli; and Lindberg and Ronald L. Numbers, In very subtle points the idea that the split was between science and philosophy is made but within this article they spend more time breaking down the traditional view than upholding Drake’s thesis.} For others, it was the internal power struggle within the Church.\footnote{See Feldhay.} Still for other historians, the schism was a result of the struggle for the Church to retain power and status within society.\footnote{See Redondi; and Aurther Koestler, The Sleepwalkers. (New York: Macmillian, 1959.); and Giorgio de Santillana, , The Crime of Galileo. (Chicago: University of Chicago Press, 1955).}

Maurice A. Finocchiaro labeled the historiography of the Galileo affair as an “oversimplification.”\footnote{Finocchiaro, “Science, religion,” 114.} He classified the scholarship into the “conflict thesis” and the “harmony thesis.”\footnote{Ibid; For original traditional accounts of the “Conflict Thesis” see, John William Draper, History of the Conflict Between Religion and Science, (New York: D. Appleton and Company, 1875.); and Andrew Dickson White, The Warfare of Science, (New York, 1876).} He also argued that two traditional approaches, which are polar opposites from each other, should be avoided.\footnote{Finocchiaro, The Galileo Affair, 5.} The first approach he called the “anti-catholic” view. The anti-catholic view reported Galileo to be a hero of modern science, and the Catholic Church was a repressive institution.
The second extreme may be called the “anti-Galilean” view. Within this viewpoint, Galileo's theories were hasty and unproven and the Catholic Church merely sought to exploit Galileo's methodological faults. Finocchiaro argued against the “myth” used to establish the idea that science and religion are incompatible. He also argued that scholarship focusing on other scientific debates beyond the motion or stationary position of the earth was looking at issues that were not the primary cause of the Galileo affair. Finocchiaro classified Drake and Fayerabend as historians who study the Galileo affair as a “microcosm of the Scientific Revolution…stud[ied] primarily for what it tells us about the scientific knowledge…and how it develops.” His assessment of Drake and Fayerabend was well put, but it does not reflect their entire argument or their contribution. The scholarship was not as simplified as Finocchiaro viewed it.

Authors in the last thirty years such as Drake, Feyerabend, Redondi, Feldhay, and Fantoli would all fall in line with the “conflict thesis” (but on opposing sides in the “anti-clerical” or “anti-Galilean” debate). However, the conflict that they write about was not so simple. Drake proposed that the conflict was between Galileo's more modern version of science and the science of the philosophers of his day. Feyerabend saw conflict within the scientific revolution as a whole, a conflict amongst traditions. The conflict for Redondi was a political power struggle in which Galileo, like a pawn being used by the Catholic Church, gets caught. For Feldhay, a struggle for elite status within the Roman Catholic Church between the Dominicans and the Jesuits was ultimately responsible for the episode involving Galileo. The conflict within Galileo’s mind between the science of Copernicanism and the theology of the Roman Catholic Church was responsible for creating the personality of Galileo, according to Fantoli. The Galileo affair is certainly not “closed,” even if many authors have interjected views that paint more elaborate pictures than the traditional views of Santilliana, Koestler, and Langford. Future scholarship may lead to a synthesis that encompasses the scientific methodology used by Galileo (its strengths and flaws), the political struggle inside and outside of the church, the divergence between the

---

77 Ibid, 5-10.
78 Ibid.
79 Ibid, 43.
80 Ibid, 4.
81 Fantoli, 373.
Drake and Fantoli together painted the best picture of the Galileo Affair. The future of the historical debate for the Galileo Affair lies within a speculative study of the mind of Galileo, which is difficult of not impossible to do. However, one must try and reconstruct the view Galileo had of himself, his work, his faith, and his Church. The intellectual world of Galileo may not be enough to gain an understanding of the events. One must also contrast Galileo’s views against the views held by certain individuals who were opposed to Galileo. The “conflict thesis” which Finocchiaro described as an “oversimplification” may not be so easily cast aside. Future scholarship may lead to a study of the conflict, or lack thereof, within the mind of Galileo and his opposition. Was science and religion on opposing sides of the intellectual world according to Galileo? Fantoli and Drake suggested the answer for Galileo was no. Studying the letters where Galileo justified his theories with theological arguments, as well as his opponents’ theological arguments against him, may lead to a greater synthesis in the study of the Galileo affair. These questions, however, were not meant to suggest that external factors, like those presented by Redondi and Feldhay, are of no consequence. The intellectual arguments presented by Galileo were no doubt a result of the world in which he lived. Galileo is often viewed as a martyr for science silenced by the Church; he may be shown in the future to be much more. The conflicts within the Galileo affair were many and varied; it was not just a division between Galileo and the Church, nor between science and religion. Galileo was a man of science and of faith, a model for both. 

Annivale Fantoli’s *Galileo: For Copernicanism and for the Church* is probably the closest representation of this thesis. Fantoli includes Pope John Paul II’s speech concerning the Galileo affair. Pope John Paul II’s thesis is referred to by Finocchiaro as an example of the “harmony thesis.” Finocchiaro called Fantoli’s book “the most up-to-date account of the episode” in a review of Fantoli’s book in *Isis*, Vol. 86, No. 3 (1995): 486. Fantoli’s arguments, especially regarding his evaluation of Galileo’s “Letter to Christina of Lorraine,” is an excellent starting point for future studies on the discussed topic.
Selected Bibliography


White, Andrew Dickson. *The Warfare of Science* (New York, 1876).