

“MEN OF GALILEE, WHY STAND GAZING UP INTO HEAVEN”: REVISITING GALILEO, ASTRONOMY, AND THE AUTHORITY OF THE BIBLE

H. J. LEE*

Four hundred years after Galileo Galilei's (1564–1642) first observation through a telescope, the 62nd General Assembly of the United Nations and the International Astronomical Union dedicated 2009 as the International Year of Astronomy. The year's commemoration brought together over 140 countries in an effort to promote worldwide recognition of the discovery of the telescope and the ongoing work in the field of astronomy. This international collaboration aspired to initiate a process that can potentially be as revolutionary as the discovery of the telescope itself.

While the year's main objectives may have been scientific and pedagogical, it is equally important to reexamine the relationship between Galileo's work and Christianity because the Church has not always celebrated his achievements like the General Assembly. In 1633, the Roman Catholic Church found Galileo holding views that contradicted Scripture and banned the scientist from conducting any work in astronomy. It was not until Pope John Paul II's 1979 commemorative speech to the Pontifical Academy of Sciences that the papacy addressed grievances against Galileo. The actions of the pope spurred various efforts to vindicate Galileo and to rectify the condemnation of his work.

Despite subsequent scholarship since 1979, at least one aspect of Galileo has unfortunately been inadequately addressed. In the years following the invention of the telescope, Galileo found himself needing to defend his Copernican cosmology. His defense came in the form of the essay *Letter to the Grand Duchess Christina* (1615; published in 1636). In this piece, Galileo challenged the exegetical practice of his accusers and upheld his own views as biblical. Specifically, his opponents lacked the principle of accommodation, which was the key to the harmonization of astronomy and the Bible in the view of the astronomer's view. Relying heavily on Augustine (354–430), Galileo attempted to establish a hermeneutic that brought together Scripture and his own scientific discoveries. This study asks on the four hundredth anniversary of Galileo's invention of the telescope whether his understanding of accommodation compromised scriptural inerrancy.

* Hoon Lee is a Ph.D. student at Trinity Evangelical Divinity School, 2065 Half Day Road, Deerfield, IL 60015.

I. RECOUNTING THE EVENTS OF THE GALILEO AFFAIR

The events surrounding the Galileo affair help to set up a clear picture of Galileo's understanding of accommodation. It must be noted that Galileo was not unique among Catholics in adhering to the Copernican position. His most prominent allies were the Dominican Tommaso Campanella (1568–1639) and the Carmelite Paolo Antonio Foscarini (1562–1616). In 1611, Campanella recounted the “prophecies” of John Chrysostom (347–407), Theodore of Tarsus (602–690), Origen (185–254), and Augustine who understood the language of Scripture to exceed a literal hermeneutic. Despite Campanella's efforts, it would seem he did little to stem the actions of the Catholic Church, especially since his work was not received until March 1616 when the Copernican position had just been forbidden.¹

Foscarini's efforts made a greater impact especially in his interactions with Cardinal Robert Bellarmine (1542–1621). When responding to biblical texts such as Ps 92:1 and 103:5, where the geocentric theory is apparently supported, Foscarini replied similarly as Campanella. Again, appealing to the Church fathers and the language of Scripture, he states that the passage should be interpreted “in respect to us, in relation only to us, and according to the appearances.”²

In *A Letter to Fr. Sebastiano*, Foscarini defended the notion that a heliocentric universe can be harmonized with Scripture's description of the world. He writes, “it is said according to the vulgar opinion and the common way of speaking; the Holy Spirit frequently and deliberately adopts the vulgar and common way of speaking.”³ For Foscarini, Scripture's language as accommodated to mankind cannot be understood literally. He goes on to explain himself when he states, “words are to be interpreted ‘according to the vulgar meaning and the common mode of speaking,’ which is the same as saying, ‘according to appearances and in relation to us or in respect to us.’”⁴ Foscarini is clearly referring to the way Scripture references the appearance of the earth in relation to the sun and the rest of the universe. When we understand that Scripture was written in accommodated language, then we are free from a literal reading that finds itself in contradiction to science.

While not dealing directly with Galileo, the work of Didacus à Stunica deserves mention. In describing the Spanish theologian's *Commentary on Job* (1584), Irving Kelter writes,

¹ For a thorough discussion of Campanella's *Apologia pro Galileo*, consult Bernardino M. Bonansea, “Campanella's Defense of Galileo,” in *Reinterpreting Galileo* (ed. William A. Wallace; Washington, DC: Catholic University of America, 1986) 205–39.

² Paolo Antonio Foscarini, “A Letter to Fr. Sebastiano Fantone, General of the Order, Concerning the Opinion of the Pythagoreans and Copernicus About the Mobility of the Earth and the Stability of the Sun and the New Pythagorean System of the World,” in *Galileo, Bellarmine, and the Bible* (trans. Richard J. Blackwell; Notre Dame: University of Notre Dame, 1991) 229. It should be noted that Protestant Bibles follow the Hebrew numbering making the references Ps 93:1 and 104:5 respectively.

³ *Ibid.* 226–27.

⁴ *Ibid.* 227.

It is the only printed work of Catholic biblical exegesis between Copernicus's *On the Revolutions* (1543) and Foscarini's *Letter* (1615) that attempts to reconcile scriptural passages with the new system of the universe. . . . in fact, the only pro-Copernican Catholic biblical commentary as such known from the early modern period.⁵

Stunica identifies Copernicus's use of the Pythagorean theory which he harmonized with the description of the universe found in Scripture. When one interprets Scripture accurately, there is no need to construct an either/or scenario between science and Scripture. Especially when one understands the importance of accommodation, realizing that Scripture is "speaking in the language of the people and not in the language of physical truth," there is no dilemma between the Bible and science.⁶ Despite all that Stunica writes in this work he later rejected the Copernican position though not on exegetical but on purely scientific grounds.

As for Galileo, it was not until *The Starry Messenger* (1610) that he first expressed his support of the Copernican position. It did not take long for disconcertment to grow among the local clergy. Though unrest began as early as 1611, it was Niccolò Lorini's comment concerning the contradiction between Scripture and motion of the earth that bothered Galileo to the extent of writing to Lorini and demanding an explanation. Lorini replied saying that the statement was made merely as a passing comment without any thought behind it. As we will see shortly, this was not entirely the case.

What has become the infamous luncheon between Benedetto Castelli (1578–1643) and the Grand Duchess Christina (1565–1637) eventually motivated two important essays. At the meeting the Grand Duchess Christina inquired about Josh 10:12–13 and the implications of Scripture stating that the sun stood still in conjunction with Galileo's beliefs that the earth was in motion. While Castelli reassured Galileo that he was able to appease the Grand Duchess and her concerns, Galileo was not so easily convinced. On December 21, 1613, Galileo advanced his defense in a letter to his former student.

Without the permission of Galileo, Castelli esteemed the warrant of the essay and distributed copies. One of these copies came into the possession of Lorini, who in turn brought it before the monastery of San Marco. Encouraged by his order, on February 7, 1615 Lorini sent the essay to the Cardinal Inquisitor Paolo Emilio Sfondrati of the *Congregation* of the Index of Prohibited Books in Rome. Unknown to Lorini, Galileo grew unsatisfied with the initial essay and wrote an extended response to the Grand Duchess, which developed his understanding of accommodation through Augustine. In the meantime, opposition against Galileo continued to grow. In 1614, the Dominican Tommaso Caccini condemned Galileo in a sermon on Acts 1:11 in which he played on the words, "men of Galilee, why stand gazing up into heaven," to denigrate the heliocentric theory of Galileo.

⁵ Irving A. Kelter, "The Refusal to Accommodate: Jesuit exegetes and the Copernican System," in *The Church and Galileo* (ed. Ernan McMullin; Notre Dame: University of Notre Dame, 2005) 39.

⁶ *Ibid.* 39–40.

The tide began to shift more rapidly in 1616 when the Congregation of the Index officially banned Copernicus's *On the Revolutions of the Celestial Spheres* (1543).⁷ After four days of deliberation the committee found the work's statements asserting a heliocentric universe in direct opposition to Scripture. While not condemning any of Galileo's works, the authorities felt the need to recall him for a proper discussion on the implications of this ban.

Cardinal Bellarmine⁸ and Cardinal Michelangelo Segizzi met with Galileo on February 26, 1616. Bellarmine was the main spokesman and conducted the meeting in which Galileo was warned against promoting the heliocentric theory. Despite Bellarmine's efforts, Segizzi interjected with a more forceful admonition, demanding that Galileo in no way hold or teach the Copernican position. Seemingly inconsequential, this injunction caused a certain level of debate since Bellarmine refused to sign Segizzi's account of the meeting for archival purposes.⁹ Rather, Bellarmine presented his own opinion of the meeting in the plenary session of the Holy Office. As such, differing views circulated on exactly what was required of Galileo and the tone of the admonition. While Bellarmine's position was the functioning understanding at the time, Segizzi's account was the one recorded and would later come up in Galileo's trial. Bellarmine fleshed out his understanding of the meeting in a letter to Galileo on May 26, 1616, in which he denied any condemnation of Galileo on the part of the Catholic Church.

Though leading up to the trial of 1633, names such as Lorini and Caccini were replaced by Fabio Spinola, Orazio Grassi, and Christopher Scheiner, the charges remained similar. Galileo's trial of 1633 claimed that *Dialogue on Two Chief World-Systems* (1632) violated the ban of 1616. Beginning September 23, 1632, the Inquisition convened with Pope Urban VIII (1568–1644), the *Dialogue*, and Segizzi's 1616 report to determine the fate of Galileo. After weeks of deliberation Galileo was put before the Holy Office on June 22, 1633. As history recounts, the Holy Office found Galileo in vio-

⁷ On February 19, 1616, the committee convened on the matter of Copernicus and the heliocentric theory. Their task was to judge two propositions found in the work: (1) the sun is the center of the world and remains static; and (2) the earth is not the center of the world and continues in constant motion. Eleven theological qualifiers were established to see whether these propositions stood in contradiction to Scripture, specifically many of the OT passages where the earth is described as the center of the world.

⁸ Bellarmine himself rejected the heliocentric theory. As Lerner writes, "Applying the principle that any word of Scripture concerned the faith, whether *ex parte objecti* (because of the subject matter) or *ex parte dicentis* (because of who said it), Bellarmine insisted that it was impossible for a Catholic to reject the literal meaning of a text such as Eccl 1:5 on the daily motion of the sun round the earth." Michel-Pierre Lerner, "The Heliocentric 'Heresy': From Suspicion to Condemnation," in *The Church and Galileo* (ed. Ernan McMullin; Notre Dame: University of Notre Dame, 2005) 25. In general, the cardinal's beliefs did not align with the adherence to Aristotelian philosophy as seen in his fellow Jesuits. Rather, his conclusions on cosmology were more directly tied with a straight reading of Scripture and study of the patristic fathers.

⁹ While not advancing the notion that the discovery of the injunction motivated the 1633 summoning of Galileo, Annibale Fantoli does believe that the discovery was one of the major factors in the summon. Fantoli reasons similarly with the influence of the injunction on the actual trial of Galileo. Annibale Fantoli, "The Disputed Injunction and Its Role in Galileo's Trial," in *The Church and Galileo*, 117–49 (ed. Ernan McMullin; Notre Dame: University of Notre Dame, 2005).

lation of his previous agreement in 1616 and the Holy Office's present rules concerning the Copernican theory. Subjugated to house arrest, Galileo was prevented from performing any astronomical work but not from other scientific endeavors.¹⁰

II. ACCOMMODATION'S ROOTS IN AUGUSTINE

Galileo's defense can only be understood in view of the debate over the general principle of accommodation and specifically Augustine's use, since the astronomer quotes the bishop prolifically. Generally speaking accommodation has commonly been defined as follows:

[A]ccommodation occurs specifically in the use of human words and concepts for the communication of the law and the gospel, but it in no way implies the loss of truth or the lessening of scriptural authority. Thus *accommodation* or *condescension* refers to the manner or mode of revelation, the gift of the wisdom of infinite God in finite form, not to the quality of the revelation or to the matter revealed.¹¹

Perhaps the best-known promoter of accommodation is John Calvin (1509–1564). By utilizing the principle of accommodation, he reconciled *apparent* “inconsistencies” or “errors” within Scripture. For example, Genesis refers to the moon as a “great light” though in fact it is merely a reflection of the sun. According to Calvin, what appears to be factual error is actually accommodated language for the benefit of man. Moses did not intend to relay scientific truth but rather the message that God is Creator of all.

While most will agree on this definition, there are some scholars who include within their definition the possibility and inevitability of human error. Fausto Paolo Sozzini (1539–1604), otherwise known as Faustus Socinus, contended that accommodation included “wrong opinions of the people of the day.”¹² As seen in *De Auctoritate Sacrae Scripturae* (1580), Socinus argued for an accommodation that embraced the erroneous beliefs of those who received revelation. This particular understanding of accommodation can be traced to scholars such as Jean Le Clerc (1657–1736) and Richard Simon (1638–1712), who in turn influenced Johann David Michaelis (1717–1791) and Johann Salomo Semler (1725–1791).¹³

¹⁰ Stéphane Garcia is of the opinion that Galileo did in fact break this ban. In secrecy he was involved in the publication of his *Letter to the Grand Duchess Christina* along with his republished *Dialogue* in 1636. For further information consult Stéphane Garcia, “Galileo's Relapse: On the Publication of the Letter to the Grand Duchess Christiana (1636),” in *The Church and Galileo* (ed. Ernan McMullin; Notre Dame: University of Notre Dame, 2005) 265–78.

¹¹ Richard Muller, *Dictionary of Latin and Greek Theological Terms* (Grand Rapids: Baker, 1985) 19.

¹² Martin Klauber and Glenn Sunshine, “Jean-Alphonse Turretini on Biblical Accommodation: Calvinist or Socinian?” *Calvin Theological Journal* 25 (1990) 14.

¹³ For a treatment of the German reception of Simon, consult John Woodbridge, “German Responses to the Biblical Critic Richard Simon,” in *Historische Kritik und biblischer Kanon in der deutschen Aufklärung*, (ed. Henning Reventlow, Walter Sparn and John Woodbridge; Göttingen: Hubert & Co., 1988) 65–87.

As one can imagine, how accommodation is defined can result in drastically different assessments of Scripture. Thus, when we take a look at Galileo's accommodation, we must keep in mind these two definitions. While Galileo may not have operated out of these specific categories, they will help in assessing the validity of his defense, especially against the charge that he compromised scriptural authority and inerrancy.

As Galileo's main authority on accommodation we now turn to Augustine. The heart of the bishop's position is that people who find fault in Scripture are unaware of the way Scripture communicates. He writes,

Here it occurs to me to repeat the warning I gave in Book I about the mistake of relying on the evidence of a scriptural text against those who produce these subtle arguments about the rights of the elements and quoting perhaps what is written in the psalms: *who founded the earth on the water* (Ps 136:6), because such people do not acknowledge the authority of our literature and are ignorant of the way in which that was said, and so they are more likely to poke fun at the sacred books than to repudiate what they have come to hold by reasoned arguments or have proved by the clearest experiments.¹⁴

Augustine did not deem scientific truth derived by experimentation incorrect. Nor must Scripture take a step back when dealing with science and matters not relating to faith. Rather, Augustine condemned the manner in which people perceive and treat Scripture. It is not in contradiction with scientific fact, but rather the interpreter fails to understand how it is written. Accommodation allows the Bible to be written in a form that is not literal. Thus, contra the Manichees who read literally, one must understand how Scripture is written using the principle of accommodation. For Augustine, Scripture and science are in harmony; any dissonance is contingent on the one who does not comprehend the manner in which Scripture is written.

The bishop's understanding of accommodation is further fleshed out in book V of *The Literal Meaning of Genesis* using the tender language of a mother.

And if you are not yet able to grasp this, leave contemplation of it to those who have the capacity, while you yourself go on making progress by walking more slowly with scripture at your side, where she does not desert your weakness but matches her steps to yours in motherly fashion. For she speaks, you see, in such a way that she mocks the proud by her sublimity, fills the attentive with awe at her profundity, feeds the mature with her truthfulness, fosters the little ones with her kindness.¹⁵

It is interesting how he described Scripture as a mother who cares for the reader like a child. She will love and patiently teach her child of the truth

¹⁴ Augustine, *The Literal Meaning of Genesis* II, 1,4. in *On Genesis* (trans. Edmund Hill; Hyde Park: New City, 2002) 191.

¹⁵ *Literal*, V, 3, 6., 279. In his unfinished work Augustine writes, "Or is this simply indicating yet again and again that God does not make in the way human beings do, but that the story is told in the only way it could be by human beings?" Augustine, *Unfinished Literal Commentary on Genesis*, in *On Genesis* (trans. Edmund Hill; Hyde Park: New City, 2002) 139. Humans come with limitations which God accommodates in his communication. He repeats this sentiment in book IV 33. 52 and book V 6. 19, 34 of *The Literal Meaning of Genesis*.

she possesses. Nowhere in this description of accommodation is the notion that Scripture allows herself to teach errors to her child.

Augustine puts all these matters more forcefully,

But because the trustworthiness of the scriptures is here in question, this, as I have reminded readers more than once, has to be defended from those who do not understand the style of the divine utterances, and who assume when they find anything on these matters in our books, or hear them read out from them, which seems to be contrary to explanations they have worked out, that they should not place any confidence in the scriptures, when they foretell or warn or tell about other useful things. It must be stated very briefly that our authors knew about the shape of the sky whatever may be the truth of the matter.¹⁶

In this section, Augustine was responding to the question of the sky's shape.¹⁷ Again, he referred to the "style" of Scripture. God condescends to man while using an appropriate style for the unlearned and limited capacity of man. In Augustine's opinion, the biblical authors were aware of the shape of the sky but chose not to address such matters, at least in any explicit fashion. Nowhere did Augustine challenge either scriptural inerrancy or authority but in fact asserts the trustworthiness of Scripture. Scripture stands completely infallible and authoritative in the face of scientific truth. With the principle of accommodation one can properly interpret Scripture and not mistakenly portray science as antagonistic to the Bible.

III. GALILEO'S USE OF ACCOMMODATION

Galileo began to develop his understanding of accommodation in his 1613 letter to Castelli. Is it important to note that he initiated his discussion with the declaration that Scripture is without error and is always "absolutely and inviolably true."¹⁸ Accompanying this statement, Galileo clarified that while Scripture is completely inerrant, interpreters of the holy script can err, and quite frequently do so. For Galileo, the greatest mistake in exegesis is an overly literal reading of Scripture, which results in contradictions and heresies; without considering contextual and theological elements a literal reading can result in attributing God bodily appendages or emotion. Galileo writes, "Thus in the scripture one finds many propositions which look different from the truth if one goes by the literal meaning of the words, but which are expressed in this manner to accommodate the incapacity of common people." Due to the limited capacity of man, regardless of sin, man is faced

¹⁶ *Literal*, II, 9, 20., 201, 2.

¹⁷ In the next section, Augustine went on to say, "But if we are obliged, as indeed we are, to understand these two expressions in such a way that they are found to agree with each other and not to be in the least contradictory, then we are also and equally obliged to demonstrate that neither of them is opposed to those explanations, should they happen to be shown by rational arguments to be true, which inform us that the sky has the shape of a hollow globe all around us—provided, once again, it can be proved." *Literal* II, 9, 21., 202. Nowhere did Augustine state his definitive belief on the shape of the sky. Rather, he said that whatever position is true, even one not listed here, it can be harmonized with Scripture when one understands how Scripture is written.

¹⁸ Galileo Galilei, "Galileo to Castelli," in *The Galileo Affair* (trans. Maurice A. Finocchiaro; Berkeley: University of California, 1989) 49 (henceforth, "Castelli").

with an unsurpassable dilemma when it comes to comprehending divine truth. God chose to accommodate his revelation to the limits of man's understanding, rather than merely allowing his revelation to fall on deaf ears. Accommodation alters the manner in which the Holy Spirit writes Scripture and consequently the way man interprets it. Galileo warned that Scripture takes into consideration man but a literal reading fails to account for accommodation, resulting in a convoluted interpretation. As we unpack Galileo's understanding of accommodation we must keep two principles in mind. First, while Scripture is inerrant, its interpreters are not. Second, while a literal reading of Scripture results in erroneous interpretations, the use of accommodation saves the exegete from these pitfalls.

Included within Galileo's definition of accommodation is the relationship between Scripture and nature. He states, "For the holy Scripture and nature both equally derive from the divine Word, the former as the dictation of the Holy Spirit, the latter as the most obedient executrix of God's commands."¹⁹ For Galileo, there is no contradiction between Scripture and nature. One must expect Scripture to be accurate in all its depictions of nature. Since according to Galileo Scripture is inerrant, one's interpretation of Scripture and nature lies at the heart of any *apparent* contradiction. Whereas Galileo's scientific work is an attempt to comprehend nature, accommodation is his model for rightly interpreting Scripture.

Though Galileo contends that Scripture is accommodated, he does not believe it is so with nature. He writes,

In order to adapt itself to the understanding of all people, it was appropriate for the scripture to say many things which are different from absolute truth, in appearance and in regard to the meaning of the words; on the other hand, nature is inexorable and immutable, and she does not care at all whether or not her recondite reasons and modes of operations are revealed to human understanding, and so she never transgresses the terms of the laws imposed on her; therefore, whatever sensory experience places before our eyes or necessary demonstrations prove to us concerning natural effects should not in any way be called into question on account of scriptural passages whose words appear to have a different meaning, since not every statement of the scripture is bound to obligations as severely as each effect of nature.²⁰

Galileo considered nature as God's unaccommodated revelation which refuses to take into consideration man's limitedness. Any information appropriated from nature must be the result of scholarly endeavor on the part of man. This in no way takes away from the validity of nature as "divine Word," but merely the manner in which it is interpreted. Though Galileo only once made this point in the *Letter to Castelli*, we will soon see how he develops this understanding in his *Letter to the Grand Duchess Christina*.

The letter to the Grand Duchess begins by reintroducing the claim that Scripture remains infallible but interpretations are subject to correction. While this argument was previously made in his *Letter to Castelli*, Galileo

¹⁹ Ibid. 50.

²⁰ Ibid. 50.

supplements it by calling on the authority of Augustine.²¹ He repeats the argument that a literalistic reading of Scripture will result in contradictions and heresies. No one actually claims that God possesses “feet, hands, eyes, and bodily sensations, as well as human feelings like anger, contrition, and hatred, and such conditions as the forgetfulness of things past and the ignorance of future ones.”²²

Galileo followed Augustine’s argument that the biblical authors knew full well the mysteries of the universe but refrained from addressing such matters in a scientific manner. Rather, cosmology was dealt with in an accommodated fashion. Not only is this true of the human authors but it is true also of the Holy Spirit: “We have seen that the Holy Spirit did not want to teach us whether heaven moves or stands still, nor whether its shape is spherical or like a discus or extended along a plane, nor whether the earth is located at its center or on one side.”²³ Neither the Holy Spirit nor human authors were ignorant of cosmological truth, but rather, through accommodation, opened a channel of communication where biblical language is written in a way that all mankind may understand.

Galileo then reintroduced the claim that while Scripture is accommodated for the benefit of all, nature remains unaccommodated, and it is up to the scientists, not the theologians, to discover its mysteries. The *Letter to the Grand Duchess* states,

And so it seems that a natural phenomenon which is placed before our eyes by sensory experience or proved by necessary demonstrations should not be called into question, let alone condemned, on account of scriptural passages whose words appear to have a different meaning.²⁴

It is not the astronomer who is in error with Scripture; rather, it is the theologian who misinterprets Scripture by failing to utilize the principle of accommodation and who erroneously sees a contradiction where in fact there is none.

Galileo did not challenge the authority of Scripture by suggesting Scripture is accommodated while nature is not. He writes,

However, by this I do not wish to imply that one should not have the highest regard for passages of Holy Scripture; indeed, after becoming certain of some physical conclusions, we should use these as very appropriate aids to the correct interpretation of scripture and to the investigation of the truths they must contain, for they are most true and agree with demonstrated truths. That is, I would say that the authority of Holy Scripture aims chiefly at persuading men about those articles and propositions which, surpassing all human reason, could not be discovered by scientific research or by any other means than through the mouth of the Holy Spirit himself. Moreover, even in regard to those propositions which are not articles of faith, the authority of the same Holy Writ should have

²¹ Galileo Galilei, “Galileo’s Letter to the Grand Duchess Christina,” in *The Galileo Affair* (trans. Maurice A. Finocchiaro; Berkeley: University of California, 1989) 94, 95 (henceforth, *Grand Duchess*).

²² *Ibid.* 92.

²³ *Ibid.* 95.

²⁴ *Ibid.* 93.

priority over the authority of any human writings containing pure narration or even probable reasons, but no demonstrative proofs; this principle should be considered appropriate and necessary inasmuch as divine wisdom surpasses all human judgment and speculation.²⁵

We see that Galileo in no way intends to challenge the authority of Scripture but deemed Scripture to be the ultimate authority.

Galileo once again repeats his argument that no two truths can contradict each other. This time he draws upon a letter Augustine wrote to Marcellinus to support his argument. He quotes the bishop saying,

If, against the most manifest and reliable testimony of reason, anything be set up claiming to have the authority of the Holy Scriptures, he who does this does it through a misapprehension of what he has read and is setting up against the truth not the real meaning of scripture, which he has failed to discover, but an opinion of his own; he alleges not what he has found in the scriptures, but what he has found in himself as their interpreter.²⁶

Galileo affirms the belief of the bishop that one's interpretation of Scripture is not necessarily identical to the meaning of Scripture. Against "manifest and reliable testimony of reason," one should not confuse an interpretation of Scripture with the meaning of Scripture.

Galileo repeats this line of thinking when he quotes Augustine saying,

In obscure subjects very far removed from our eyes, it may happen that even in the divine writings we read things that can be interpreted in different ways by different people, all consistent with the faith we have; in such a case, let us not rush into any one of these interpretations with such precipitous commitment that we are ruined if it is rightly undermined by a more diligent and truthful investigation; such recklessness would mean that we were struggling for our opinions and not for those of Scripture, and that we wanted to make scriptural opinion conform to ours, when we ought to want to make ours conform to that of Scripture . . . it is not against the faith as long as it is not refuted by an unquestionable truth; if this happens, then it was not contained in the divine Scripture but originated from human ignorance.²⁷

With this, Galileo comments,

From this one sees the falsehood of any meanings given to scriptural passages which do not agree with demonstrated truths; and so one must search for the correct meaning of Scripture with the help of demonstrated truth, rather than taking the literal meaning of the words, which may seem the truth to our weak understanding, and trying somehow to force nature and deny observations and necessary demonstrations.²⁸

It is Galileo's contention that since two truths cannot be in contradiction, a demonstrated truth that seems contradictory to a literal reading of Scripture must be interpreted according to accommodation. That is why, when referring to Copernicus, Galileo stated that when this theory is demonstrated there

²⁵ Ibid. 93–94.

²⁶ Augustine, "Letter to Marcellinus," quoted by Galileo in *Grand Duchess* 96.

²⁷ Augustine, *The Literal Meaning of Genesis*, quoted by Galileo *Grand Duchess* 110–11.

²⁸ *Grand Duchess* 111.

should be no concern over how it relates to Scripture. As mentioned above, Scripture is the ultimate authority. Second, since no two truths can stand in contradiction and since nature and Scripture are from the same Word, there must be reconciliation between the two. Hence, the importance of a right understanding of and the use of accommodation cannot be minimized for the astronomer.

As with *Letter to Castelli* Galileo again states that nature is not to be accommodated.

Because of the mentioned reasons many passages admit of interpretations far removed from the literal meaning, and also we cannot assert with certainty that all interpreters speak by divine inspiration; hence, I should think it would be prudent not to allow anyone to oblige scriptural passages to have to maintain the truth of any physical conclusions whose contrary could ever be proved to us by the senses and demonstrative and necessary reasons.²⁹

For Galileo, both theologian and scientist are susceptible to error, but Scripture and nature are free from this possibility. In addition, nature remains the more difficult of the two to interpret since it is not in accommodated language. Nevertheless, the two are not in contradiction, but only interpreters of the two can fall into contradiction. Galileo quotes again from Augustine to make two points:

There should be no doubt about the following: whenever the experts of this world can truly demonstrate something about natural phenomena, we should show it not to be contrary to our Scripture; but whenever in their books they teach something contrary to the Holy Writ, we should without any doubt hold it to be most false and also show this by any means we can; and in this way we should keep the faith of our Lord, in whom are hidden all the treasures of knowledge, in order not to be seduced by the verbosity of false philosophy or frightened by the superstition of fake religion.³⁰

First, Augustine believed that “experts” were able to add to mankind’s knowledge concerning the world through demonstrated truth. If that is so, then it is up to the theologian to show how Scripture is not in contradiction to this demonstrated truth. Second, if there is a contradiction then Augustine advanced that one must show the falsity of the “expert” and prove that Scripture is accurate and the scientist wrong. Galileo writes,

So physical conclusions which have been truly demonstrated should not be given a lower place than scriptural passages, but rather one should clarify how such passages do not contradict those conclusions; therefore, before condemning a physical proposition, one must show that it is not conclusively demonstrated.³¹

Galileo, by using Augustine’s understanding of accommodation, is not establishing a method to challenge scriptural authority or inerrancy. Rather, by using accommodation, he is appropriating accommodated divine speech to show that scientific truth is not in contradiction to Scripture. Since nature and Scripture are of the same Word, nature’s truth is not secondary to Scripture.

²⁹ *Castelli* 51.

³⁰ Augustine, *The Literal Meaning of Genesis*, quoted by Galileo, 101.

³¹ *Grand Duchess* 102.

Accommodation utilized in an appropriate manner reveals God's truth in Scripture in a manner fit for the unlearned. By doing so, it does not present certain information in scientific language. Nevertheless, this does not demean the inerrancy of Scripture but rather calls for a different method of interpretation. As such, demonstrated truth must coincide with Scripture, and by using accommodation one sees that this is so.

With the aid of Augustine's understanding of accommodation, Galileo contended that Scripture is infallible. What remains to be questioned is the interpretation of scholars who find fault with the consistency between Scripture and nature. Rather than an overly literal reading, which results in erroneous readings of Scripture, one's use of accommodation allows the interpreter to harmonize demonstrated science with the Bible.

IV. TWO QUALIFIERS OF GALILEO'S USE OF ACCOMMODATION

This discussion raises two critical issues in interpreting Galileo. First, though Galileo appropriates Augustine's understanding of accommodation he does differ from the bishop. Included in both Galileo's and Augustine's definitions of accommodation is the concept that man is too limited to understand divine truth fully, hence the necessity of accommodation. What differs slightly is their understanding of limitedness. Whereas Augustine gives the impression that all mankind falls short in this regard, especially after sin and the Fall, Galileo's understanding is much more basic. He writes, "for the few who deserve to be separated from the masses, it is necessary that wise interpreters produce their true meaning and indicate the particular reasons why they have been expressed by means of such words."³² In *Letter to the Grand Duchess Christina*, Galileo goes on to say that his time is more "refined" and assumedly in need of less accommodation than Scripture's original audience.³³ Galileo's understanding seems to indicate that accommodation is due to people's lack of understanding, which can be rectified by scholarly study. Scientists such as him can excel beyond accommodated language and outgrow the need for accommodation because of their command of scientific intricacies.

Augustine, on the other hand, does not imply this element within his definition of accommodation. He does claim that certain OT elements were the result of accommodation to the vulgarity of the Jewish people. In a polemical way Augustine denigrates the Jewish people, claiming that practices such as animal sacrifices were only allowed because God accommodated according to the lowliness of the Jews, but the NT church did not require such accommodation. That being said, this is not a major aspect of the bishop's use of accommodation. Rather, he tended to understand man's limitations as more universal and encompassing. While Galileo seems to give the impression that one may escape the need of accommodation through scholarly endeavors, Augustine's definition implies that we all fall short and are in need of accommodation.

³² *Castelli* 50.

³³ *Grand Duchess* 106.

Second, in Ernan McMullin's article "Galileo's Theological Venture," McMullin claims that while Galileo was in good keeping with the Augustinian tradition, he emphasized more the "principle of scriptural limitation" (PSL). McMullin defines the principle as follows: "Since the primary concern of Scripture is with human salvation, we should not look to Scripture for knowledge of the natural world."³⁴ McMullin contends that Augustine could never be considered as one who held to PSL while Galileo in fact did promote PSL, especially in his *Letter to Castelli*. Galileo's main quote from which McMullin draws his conclusion is as follows:

The authority of Holy writ has merely the aim of persuading men of those articles and propositions which are necessary for their salvation and surpass all human reason, and so could not become credible through some other science or other means except the mouth of the Holy Spirit itself. I do not think it necessary to believe that the same God who has furnished us with senses, languages, and intellect would want to bypass their use and give us by other means the information we can obtain with them. This applies especially to those sciences about which one can read only very small phrases and scattered conclusions in the Scripture, as is particularly the case for astronomy.³⁵

When we dissect Galileo's words, we see that McMullin's claim falls short. First, Galileo stated that Scripture's ultimate purpose is for the communication of "articles and propositions" which are necessary for salvation and cannot be discovered by science but must be revealed by the Holy Spirit. Second, Galileo believed that God gave us our senses and intellect to be used in acquiring information. Third, Galileo stated we should use our God-given resources to discover truth in areas that Scripture has addressed in only very limited ways, such as astronomy. While McMullin writes, "Galileo leaves the reader in no doubt about his positions. One should not expect to find natural knowledge (astronomical knowledge, in particular) in Scripture,"³⁶ Galileo seems to think otherwise. In the quote above, we see Galileo saying that Scripture does in fact talk about astronomy, albeit in small doses.

McMullin's PSL is contingent on the erroneous belief that if one understands Scripture's primary purpose to be the communication of God's saving grace, then matters unrelated to faith are secondary and even absent. On the other hand, as seen in our study, Galileo stated that while Scripture's purpose is in fact primarily for salvation, all matters and information recorded in Scripture that are not related to faith are to be considered infallible. Finally, Augustine seems to say the exact same thing as quoted above when he writes,

It must be stated very briefly that our authors knew about the shape of the sky whatever may be the truth of the matter. But the Spirit of God who was speaking through them did not wish to teach people about such things which would contribute nothing to their salvation.³⁷

³⁴ Ernan McMullin, "Galileo's Theological Venture," in *The Church and Galileo* (ed. Ernan McMullin; Notre Dame: University of Notre Dame, 2005) 95.

³⁵ Galileo Galilei, "Letter to Castelli," quoted in McMullin, "Galileo's Theological Venture" 101.

³⁶ McMullin, "Galileo's Theological Venture" 101.

³⁷ *Literal* 202.

Neither Augustine nor Galileo believed that since Scripture is intended for salvation, matters such as astronomy are completely absent in the Bible. Rather, both seemed to say that while Scripture's purposes are for salvation, passages in which it does address issues such as astronomy are completely authoritative and inerrant.

V. CONCLUSION

The Galileo affair proves to be a critical juncture in history where exegetical, theological, and scientific concerns converged in the condemnation of an astronomer. With all the various concerns and elements studied in the affair it cannot be limited to just one study. As such, I have attempted to narrow our discussion to Galileo's understanding of accommodation. By looking at Galileo's greatest source on this issue, Augustine, we have seen how the bishop's principle of accommodation does not violate scriptural inerrancy or authority. As opposed to Socinus and Semler, Augustine did not include within his definition of accommodation erroneous cosmology. For him, accommodation allowed an incommunicable truth to be condescended to the level of man without compromising authority or inerrancy.

Since Galileo's opponents accused him of violating these two qualities of Scripture, we looked at the astronomer's use of accommodation and saw how Galileo appropriated Augustine's understanding in his two essays. In neither of the essays did Galileo's definition of accommodation violate scriptural authority or inerrancy. On the contrary, Galileo held to complete biblical infallibility. Rather, it was the interpretation that was mistaken when a contradiction between Scripture and nature was found. Since both Scripture and nature come from the divine Word, they cannot stand in contradiction to each other. Hence, one must use the principle of accommodation to properly interpret Scripture and its passages that relate cosmological matters.

We also saw how Galileo's definition of man's limitations is different from Augustine. While Augustine held to a more universal understanding of man's inability, Galileo had a more specific group in mind. Unlike Augustine, Galileo emphasized that the need for accommodation can be overcome by scholarly work and understanding. Lastly, while McMullin's work provides a helpful source for the study of Galileo, he incorrectly claims that Galileo puts limits on Scripture's inspired content that are not found in Augustine. Rather, Galileo understood Scripture's primary purpose to be salvation while at the same time containing passages that relate an inerrant and authoritative presentation of cosmological truths.

Clearly, the Galileo affair did not come to a close in 1633. Despite Pope John Paul II's call for a reexamination of the affair, much work remains to be done. This study has aimed to address whether Galileo's understanding of accommodation compromised scriptural authority and inerrancy. Contrary to his opponents, the astronomer's principle of accommodation falls in line with the Augustinian tradition, contra Socinus and Semler, and upholds authority and inerrancy while harmonizing Scripture and astronomy.