The Life of Galileo

INTRODUCTION

BRIEF BIOGRAPHY OF BERTOLT BRECHT

Bertolt Brecht is known for his work in the theater, both as a playwright and director, as well as a theoretician. He was also an accomplished poet. Like all Europeans coming of age in the early twentieth century, the course of his life was drastically altered by World War I (which began when Brecht was just 16 and ended four years later) and by World War II (which Germany started in 1939). Brecht avoided being drafted into WWI by registering as a medical student at Munich University, where he first began working in theater. In the two decades between the wars, Brecht wrote multiple plays (including his most famous, *The Threepenny Opera*), established a theater company, and became wildly influential. When Hitler came to power, signaling the beginning of the second World War, Brecht (a socialist) fled the country, fearing political persecution. He ultimately landed in America, where he had a short-lived career in Hollywood, prior to being questioned by the House Un-American Activities Committee and subsequently blackballed in movies. He moved to East Berlin shortly after the war, where he worked on refining his theory of "epic theater." Today these theories of Brecht's are his strongest influence. Most serious theater directors must, in some way, respond to them in their productions, and his impact can even be seen in the works of movie directors such as Lars von Trier and Michael Haneke.

HISTORICAL CONTEXT

Life of Galileo can be said to take place at two times. The first is the time in which the play is set (Galileo's Italy in the 1600s), and the second is the time in which the play was written (Brecht's Europe in the 1930s). The two hold striking similarities. In Galileo's time, new scientific ideas were emerging that challenged centuries of religious understanding of the world. In Brecht's time, new political systems were coming to power in the form of fascism and communism. Like the scientific knowledge of Galileo's day, the political changes in Brecht's day were met with extreme resistance. Two facets of sixteenth-century Italy are important to understanding *Life of Galileo*. The first is the omnipresence of the Inquisition, a kind of religious police force first founded in medieval times to investigate charges of witchcraft and reestablished in Galileo's day to protect against the rise of Protestantism. The Inquisition had extensive power in the Church and could bring people to trial (and punish them) at will. The second facet, not unrelated, is the importance of Aristotle to scientific knowledge at the time. Aristotle believed in a universe where the Sun and all other heavenly bodies revolved around the Earth. In turn, the Church accepted and promoted this belief. Others, most importantly Copernicus, had promoted the heliocentric model (of the Earth revolving around the Sun) with virtually no success, and sometimes at the risk of their own lives. Challenging Aristotle became a type of heresy: something the Inquisition would be very much involved in. Indeed, the trial of Galileo is likely the most famous of the Inquisition's undertakings. The rise of fascism alluded to above specifically refers to the ascension of Hitler to the chancellorship of Germany just prior to World War II as well as the coming to power of fascist leaders in Italy and Japan. With Hitler's rise the ability to speak out against the government became increasingly difficult, indeed illegal. At the same time, it became clear that a Europe already badly wearied by the events of World War I would soon be plunged into another global conflict. Some world leaders, such as Neville Chamberlain, attempted to stave this off by appeasing Hitler, but to no avail. It was a time of tumultuous change.

RELATED LITERARY WORKS

Using historical events to draw parallels with modern politics was a tool Brecht used in many of his plays, such as *Mother Courage and her Children* and *The Threepenny Opera*, Brecht's most famous works. This has also been done by many other playwrights, including Arthur Miller with *The Crucible* and Jean Anouilh with *Becket*. Brecht's ideas on "epic theater" (which can be seen in an early stage of development within *Life of Galileo*) were a direct response to Aristotle's *Poetics*. They inspired multiple playwrights and stage directors, such as Dario Fo and Augusto Boal, as well as film directors such as Jean-Luc Godard and Rainer Werner Fassbinder.

KEY FACTS

- **Full Title:** Life of Galileo
- **When Written:** 1938
- **Where Written:** Denmark
- **When Published:** 1940
- **Literary Period:** Modernism
- **Genre:** Play, Agitprop (Political Propaganda), Epic Theater
- **Setting:** Venice, Florence, and Rome
- **Climax:** Galileo (who appears to have abandoned his commitment to science) manages to secretly write a new scientific treatise and smuggle it out of Italy with the help of his former student.
- **Antagonist:** The Roman Catholic Church

- **Point of View:** (Play)

EXTRA CREDIT

Constant Revision. Brecht wrote three separate editions of *Life of Galileo*, each of which he saw onstage in his lifetime. The first (the Danish version) is the original text. The second, the "American edition," was produced during Brecht's exile in the United States with the help of actor Charles Laughton. During the Cold War, Brecht again revised the play: the "Berlin version," as it was called, incorporates elements of both the Danish and American texts.

True Story. *Life of Galileo* adheres closely to what is known about Galileo Galilei's intellectual conflict with the Roman Catholic Church.

PLOT SUMMARY

Life of Galileo opens on Galileo Galilei, a professor of mathematics at Padua University. He's talking to Andrea (his housekeeper's young son), who has just brought him breakfast. They're discussing the solar system and how it works. Galileo shows Andrea a wooden model that illustrates the current, generally accepted understanding of the planets. In it, the Earth is in the middle of the universe and is surrounded by eight crystal spheres. These spheres represent the moon, the sun, and all the planets. People have believed this model for two-thousand years, Galileo says, but as mankind progresses in technology and knowledge, he suspects they won't believe it for much longer. He teaches the ideas of Nicolaus Copernicus to Andrea (who calls Copernicus "Copper Knickers"). The new ideas place the Sun at the center of the solar system, with the Earth and planets revolving around it. All the other stars in the night sky are at the center of their own systems. Galileo uses the wooden model as well as a series of common-sense demonstrations with an **apple** to show Andrea how Copernicus' theory could be true. Andrea believes him somewhat, but also questions Galileo whenever an argument seems weak. When Andrea's mother, Mrs. Sarti, arrives, she expresses serious concerns about what Galileo is teaching Andrea, since it goes against the Church's approved model and could therefore get Andrea into trouble at school.

Throughout all of this, another concern repeatedly appears: money. Galileo doesn't have any, but he needs it—not just to continue his research and buy books—but also to do simple tasks like pay the milkman. So when Ludovico arrives, hoping to hire Galileo on as a tutor, Mrs. Sarti insists that Galileo accept the offer. He does, though not happily. Shortly afterwards, Galileo's supervisor at Padua University (the Procurator) arrives to tell Galileo that his recent request for a raise has been denied. The Procurator suggests that, if the mathematician needs more money than his teaching job provides, he should invent something useful. He reminds Galileo that, while Padua (and more broadly, Venice) might not pay much, it at least offers freedom from persecution by the Church, which he might experience in other, better funded places (like Florence). Galileo responds that such freedom of thought may be nice, but it is meaningless if he spends all of his free time working to make ends meet instead of thinking.

Ludovico, however, provides a possible solution to Galileo's problem: a new invention by the Dutch called the telescope. It's still unheard of in Italy, but Ludovico has seen it put to wondrous uses abroad. Galileo instantly understands the mechanics behind the device and quickly replicates one, pawning it off as his own original invention. The Procurator, seeing the great many uses that the telescope could be put to, guarantees Galileo his raise. Shortly thereafter, however, a Dutch merchant arrives in Venice with a boatload of telescopes and Galileo's deception is revealed. It doesn't matter, though. He's already used the telescope to empirically prove Copernicus' theory (which he'd previously only been able to prove theoretically using mathematics). He excitedly tries to show this proof to his friend Sagredo, but Sagredo only reminds him that a man was burned at the stake for quoting Copernicus only a few months before. Undeterred, Galileo remains confident that the Church will be unable to avoid the truth when it's right before their eyes. This confidence causes him to move to Florence where, despite being under strict religious censure, he believes he will have the time and money to explore his new findings.

With Galileo newly settled in, Cosimo Medici, the Grand Duke of Florence (who is still just a child), is brought by his counsellors to see the telescope at work. Among Cosimo's party are a theologian, a mathematician, and a philosopher. All of them are wholly skeptical of Galileo's latest findings and, after some heated debate with him, they decide that he's a waste of time at best if not an outright lunatic. In the end, they won't even look through the telescope to see the simple, observable evidence that Galileo presents as proof, though they do agree (in a way that seems less than sincere) to present Galileo's information to the Church's chief scientist, Clavius. Shortly thereafter, a deadly plague rips through Florence. Galileo, his daughter Virginia, Mrs. Sarti, and Andrea are given the chance to flee, but Galileo declines it, citing his need to work. Mrs. Sarti decides to stay behind with him, but they send Virginia and Andrea away. Andrea, however, opts to return despite the danger so that he can continue assisting Galileo.

All manage to avoid the plague and Galileo soon finds himself at the Vatican awaiting Clavius' review of his work. The scene plays out in much the same way that the confrontation in Florence did: the Church's scholars are simply too dedicated to the Church's existing understanding of the universe to entertain alternatives. They all feel that Galileo's telescope is a

dangerous object and that his questioning of age-old wisdom is even more dangerous. A kind of fever overtakes the discussion and at one point an older cardinal faints while berating Galileo. Nevertheless, the scene ends with Clavius confirming that Galileo is correct. His words are followed up by "deadly silence."

Though Galileo understandably feels that his work has been vindicated by Clavius, he soon discovers that the Inquisition has other ideas. They've decided that Copernicus remains heretical and cannot be taught. Paradoxically, though, they've accepted Galileo's findings. What this means is that the Church has decided to allow Galileo to continue his research but not to publish it to the outside world. Galileo is upset by this, but also slightly overwhelmed—he is, after all, a devout Catholic who doesn't wish to go against his Church, and these orders come from the highest levels of authority.

In the following scene, the Little Monk visits Galileo. He has looked through a telescope and observed the same things Galileo has. The discovery has shaken his faith, and in order to recover that faith, he has decided to abandon astronomy. He visits Galileo to explain why—perhaps in an effort to convince Galileo to do the same. Their long conversation doesn't go quite as planned, however, and Galileo ends up converting the Little Monk into one of his students by offering him his manuscripts. Galileo compares these to "an **apple** from the tree of knowledge," something he knows the Little Monk won't be able to resist. Kept from publishing, Galileo has instead spread his knowledge to his students, who now include the Little Monk, Andrea, and Galileo's telescope lens manufacturer, Federzoni.

Meanwhile, the Pope is dying and it seems likely that his successor will be Cardinal Barberini, a mathematician with whom Galileo has had favorable interactions in the past. Assuming that Barberini will be far more receptive to his work than the previous Pope, Galileo resumes publication. His ideas spread far and wide, seemingly overnight: he even becomes the subject of ballads sung at public fairs and carnivals. Naturally, this catches the eye of the Inquisition, who summon Galileo to the Vatican. While Barberini does indeed agree with Galileo, the politics behind supporting him are just too risky and complicated. Therefore, the new Pope has given the Inquisition the right to imprison Galileo, and even to threaten him with torture, in order to force him to renounce his work. Their plan succeeds, and Galileo recants his doctrine. His students can hardly believe it, and they turn their backs on him. They feel that Galileo has abandoned their hard and important work to save his own skin.

Nearly a decade passes. Galileo has been imprisoned in his home by the Inquisition and will remain so for the rest of his life. He's forced to write dissertations approving the Church's opinion on a number of banal matters, all of them below his abilities. These texts are carefully checked by a monk for any heresies they might contain, and any other writing is forbidden. Nevertheless, Galileo has, in secret, finished his magnum opus, *The Discourses and Mathematical Demonstrations Relating to Two New Sciences*. One day, Andrea comes to visit (the first of his old pupils to do so). At first, Andrea is cold towards his old mentor. Galileo reveals, however, that he did not recant his work in order to save his life. Rather, he recanted it so that he could continue it in secret. With Andrea's help, Galileo manages to sneak *The Discourse* out of the country and into Holland, where it is published without censure.

CHARACTERS

Galileo Galilei – Galileo, the protagonist and title character of *Life of Galileo*, is a lecturer at Padua University, where he specializes in using mathematics to prove astronomical models. Galileo is a robust man, full of energy and endowed with a contrarian nature. He is also a talented and engaging teacher with a knack for making complicated topics easy to understand. Though he is a devout Catholic, Galileo likes to question things, which makes him a problem for the Catholic Church. The primary object of his questioning is the Aristotelian model, a centuries old doctrine that says that the Earth exists at the center of the universe. Galileo instead holds to Copernicus' model, which places the sun at the center of the solar system with the Earth revolving around it. As the story unfolds, Galileo finds himself able to prove unequivocally that Copernicus was right, but he faces the difficult task of convincing the Church that centuries of religious teachings were wrong.

Andrea Sarti – Andrea is the young son of Mrs. Sarti and a student of Galileo Galilei. Quick-witted and precocious, Andrea likes to question things and he even becomes something of a teacher himself when he attempts to explain Copernicus' model to his mother. Andrea is the first to point out to Galileo when something he's said doesn't make sense or when a teaching method he's used doesn't really work. In this way, he shares the older man's willingness to question authority. As he ages, Andrea becomes increasingly invested in Galileo's work and is disgusted by Galileo's decision to recant his research under threat of torture by the Inquisition. Still, Andrea remains loyal to Galileo and ultimately helps him to publish his final book.

The Little Monk – The Little Monk begins as one of Galileo Galilei's many detractors within the Catholic Church, but he ultimately becomes one of Galileo's students and acolytes. Trained to be a theologian, mathematician, physicist, and astronomer all at once, the Little Monk originally argues with Galileo, defending Aristotle and the centuries of wisdom the Church has taught him. However, the Little Monk has a highly energetic, almost tenacious, desire for the truth. So, when he witnesses the evidence of Copernicus' model provided by Galileo's telescope, he finds himself unable to turn away from it. In the end, he becomes one of his teacher's most vocal supporters, even when both the Pope and Inquisition have

arrested Galileo.

Federzoni – Federzoni grinds the lenses for Galileo Galilei's first telescope, a simple task that somehow makes him another of Galileo's students (despite being older than either Andrea or the Little Monk). While a skilled workman and devoted friend, Federzoni lacks any kind of formal education. As such, he doesn't speak Latin at all and he struggles to understand the complicated, Latinate arguments put forth by Galileo's intellectual opponents. He is never embarrassed by these struggles, though, and he even seems comfortable engaging those opponents once Galileo has required them to make their arguments in Italian. Like Andrea and the Little Monk, Federzoni turns his back on Galileo after he recants his research.

Cardinal Barberini (later Pope Urban VIII) – Cardinal Barberini, who later became Pope Urban VIII, has few speaking lines in *Life of Galileo*, but he nevertheless has a huge impact on the life of Galileo Galilei and his followers. A mathematician as well as a priest, Barberini first meets Galileo when the Church has decided that Galileo's research may continue but not his publishing. During that encounter, Barberini shows himself to be a remarkably intelligent man with a subtle understanding of the Church's responsibilities. He is a shrewd calculator of what must be done for the Church, but he is also a human being and lover of science. When, as Pope, Barberini is pressed by the Inquisition to allow the torture of Galileo, he demurs and likely saves Galileo's life.

Ludovico Marsili – Ludovico (whose name literally means "I play at the house" in Latin) is a rich young playboy whose primary interest is his horses. His mother, however, demands that he be educated broadly and by the best, which leads him to seek out Galileo Galilei as his tutor. Ludovico is something of a one-dimensional character: he cares only about himself and how others perceive him. As his name suggests, he "plays" at being one of Galileo's students. However, unlike Andrea or the Little Monk, Ludovico continues on with Galileo in the hopes that it will make him rich. He is briefly engaged to Virginia, but this ends this when her father's reputation as a heretic will make him look bad at Church.

Mrs. Sarti – Mrs. Sarti is Galileo Galilei's housekeeper and mother to Andrea. While Galileo thinks only about the Sun, Moon, and planets, Sarti must think of practical things like the monetary situation of the household and paying the milkman. She may be domineering in this regard, she also cares deeply for Galileo, and risks her life to stay with him during the outbreak of the plague.

The Procurator – The Procurator is Galileo's superior at Padua University. He is sensitive to Galileo's genius and need for more money, even if he can't help Galileo get a raise. A product of his time, the Procurator values both philosophy and theology over religion and he regrets that someone of Galileo's obviously formidable talent should have chosen a career in base mathematics. The Procurator is especially proud of Padua University as a bastion of free thought.

Virginia – Virginia is Galileo's young, naïve daughter. Despite the presence of a Pope, multiple cardinals, and other religious figures, she is the most devoted follower of Catholicism in *Life of Galileo* and can often be seen praying. She loves her father, but sees his work in science as misguided. When the Inquisition questions her about him, she has no sense of what danger she might be putting Galileo in.

Cosimo de Medici – Cosimo is the Grand Duke of Florence, though he is only a child around Andrea's age. As such, he is led mostly by his Catholic advisers, and even when he comes to an age of reason, he continues to parrot their beliefs. His age and lack of maturity can be readily seen in the physical tussle he gets into with Andrea over a wooden model of the solar system. Because Cosimo is so easily handled by his staff, it is impossible for him to assist Galileo, although it's not clear that he would want to assist Galileo even if he could.

Father Christopher Clavius – Clavius, like Barberini, is a minor character with few lines, but with an exceptionally important role. As the Vatican's chief scientist, it is Clavius who makes the determination that Galileo's proof of Copernicus' system is correct. This shows that Clavius has the bravery (and political clout) to credibly make such a declaration, despite the Church's firm belief in Aristotle's contradictory system.

Sagredo – Sagredo is a minor character who serves as a "canary in the coal mine" for Galileo. He does this by reminding the astronomer of the real-world consequences of his theories, which include, among other things, the possibility of being **burned at stake**. Sagredo is nevertheless an intellectually curious character who is willing to accept Galileo's ideas with sufficient proof.

THEMES

In LitCharts literature guides, each theme gets its own color-coded icon. These icons make it easy to track where the themes occur most prominently throughout the work. If you don't have a color printer, you can still use the icons to track themes in black and white.

PROGRESS VS. TRADITION

Both Brecht and Galileo lived in societies that were characterized by the desire to do things differently than they'd been done in the past. In Galileo's time, science introduced knowledge and ideas that were at odds with centuries of religious teachings about the nature of the world. In Brecht's day, this desire for change was political. People were tired of wars and the political systems that caused them: they wanted change and some believed that communism could

provide it. By staging a play about Galileo's life in the era of communism's ascendance, Brecht suggests that history will view the struggle for communism in the same favorable light that contemporary people see Galileo's struggle for scientific knowledge against a repressive religious hierarchy.

Brecht suggests that people tend to view favorably what aligns with reason. Therefore, he believes that even ideas that are at odds with centuries of tradition and "common sense" will ultimately be accepted if those ideas are more rational than the ones they strive to replace. For Galileo, whom Brecht endows with the same belief, proof of this inclination toward rationality can be seen in the ability of simple demonstrations, made with **apples** and wooden models, to teach complex ideas. Andrea, who initially lacked the education necessary to understand the mathematics behind Galileo's ideas, was easily convinced by Galileo's models that the Aristotelean concept of the universe made less sense than Copernicus' system. That basic inclination toward reason, Galileo says, is found everywhere from "the horny-handed old woman who gives her mule an extra bundle of hay on the eve of a journey" to "the sea captain who allows for storms and doldrums when laying in stores," and it is an irresistible power that will eventually persuade even the most stubborn people of the truth.

Building on this, *Life of Galileo* suggests that technological advancement and an increasing trust in empiricism means that human reason can be more easily directed. When Copernicus confronted the ideas of Aristotle, he did so on purely mathematical grounds. If one couldn't understand the mathematics behind his proofs, then one simply had to take his arguments on faith—precisely what had been done for centuries with Aristotle. Without *observable* proof, Copernicus' arguments remained just a theory. Thanks to the telescope, however, Galileo could provide visible proof of phenomena that could otherwise only be described mathematically. While his demonstrations and models were convincing to some, the incontrovertible evidence of the eyes, in the end, was sufficient to persuade all. For Brecht, who sought to prove Marx's theories to his audience, observable proof of communism's viability was found not in a technological advancement, but rather through experiment. The Soviet Union had recently turned the theories of Karl Marx into proof of the viability of communism, and countries throughout the world sought to replicate their findings.

Brecht makes this parallel concrete when he has Galileo equate politics and science in an odd speech to a former student. In it, he says that "the poverty of the many is as old as the hills, and from pulpit and lecture platform we hear that it is as hard as the hills to get rid of." But the "new art of doubting" that reason has created has caused people to train their telescopes not just on the stars, but also on "their tormentors, the princes, landlords and priests." And just as ordinary people had used their reason to see the flaws of Aristotle's time-honored models, so too would they use reason to see the flaws in the systems of power which had long oppressed them. Those systems, Brecht believed, would in turn be replaced by ones that made more sense for everyone, just as Galileo's system replaced Aristotle's.

For Galileo, then, knowledge really was a power that anyone could wield in the pursuit of a better world. In this way, Brecht uses Galileo as a stand-in for himself: both men present themselves as iconoclasts, standing against centuries of inherited wisdom. Both men make that stand in the name of the common man, whom they understand would benefit the most from this emancipation of ideas. And, perhaps most importantly, both men speak directly towards that audience of ordinary people. Brecht's fictional Galileo writes all of his scientific tracts in Italian, rather than in Latin, so that people from a variety of backgrounds can read them (the real Galileo did this as well). Similarly, Brecht himself wrote in an easy-to-understand German and made sure that English translations of his work were equally accessible. Even his theoretical works on the theater, which tackle very complex topics, are easy to read.

PERSECUTION

Modern readers are accustomed to the rigors of free scientific debate, which allows for a variety of viewpoints, so long as data exist to reinforce one's positions. Even in more esoteric worlds like philosophy and politics, few arguments are taboo as long as they are presented both with good intent and reason. Such freedoms, though, are a modern victory—sometimes a *very* modern one. In Brecht's day, citizens of the United States faced severe repercussions, including charges of treason, if they espoused socialist or communist views. In Galileo's time, questioning the Church's position on any topic could lead to a charge of heresy, a crime that carried with it a wide array of harsh punishments. Of these, the worst was burning at the stake, and indeed imagery of **flames** and burning can be found throughout *Life of Galileo*, invoking this very threat. Yet, Brecht argues that, regardless of the time one lives in, true believers in their cause will always to continue to challenge authority, no matter the consequences.

Galileo's challenge to astrology (upon which the authority of the Church was partially based) was significant, since his ideas undermined centuries-old understandings of the universe and even suggested that fundamental aspects of Christian doctrine were entirely untrue. The Church had taught for centuries that the Earth was the center of the universe, with all other elements (like the Sun, Moon, and planets) captured in successive crystalline spheres. Galileo's research contradicted the Church's model of the cosmos, and placed the Earth at the center of just one solar system among countless others. In effect, Galileo's ideas "got rid of Heaven." The dissemination of such iconoclastic beliefs was so great a threat to the power of the Church that Galileo was tried before the Inquisition and threatened with torture if he didn't renounce his views—which

he did. The Church's brutal imprisonment of Galileo appeared to have broken him. He lost the respect and friendship of his pupils, and, seemingly, he lost his enthusiasm for his work. The Church wanted Galileo's harsh life to be an example to others who might challenge its authority.

However, the Church's desire to make an example of Galileo clearly failed, as Brecht is using Galileo's life to illustrate the importance of challenging repressive institutions (the opposite of the lesson that the Church hoped people would derive from Galileo's story). Though Galileo appeared to have caved to the Church's demands, he was actually trying to avoid attracting attention so that he could work on a secret manuscript that he disseminates by having a student sneak it out of the country. This is a complicated moral position, since Galileo's life appears, outwardly, to validate the Church's authority. However, Galileo is only using the appearance of compliance to give himself the freedom to continue his work. By holding Galileo up as a model of iconoclasm, Brecht seems to endorse a utilitarian attitude. Instead of judging Galileo for not publicly maintaining his stance against the Church, he celebrates Galileo for creating, by any means necessary, the conditions under which he could continue his important work. In other words, Brecht seems to believe that Galileo's integrity is defined less by his public position than by his commitment to continuing to develop and disseminate subversive ideas.

Brecht also acknowledges the tremendous cost of living in defiance of authority. Galileo's time in prison and his life after prison take a physical toll on him. For example, writing his final manuscript destroys his eyesight, because he must conduct his work at night, in secret. This was also emotionally difficult for Galileo, as he was continuing his work under threat of execution. Even more significant, his criticism of the Church was morally painful for him because it did not spring from hatred of religion; though Galileo disagreed with the Church's teachings on astronomy and astrology, he was a devout Catholic, and being at odds with the Church was not a natural or easy position for him. Despite being "a faithful son of the church," Galileo was willing to question his own deeply-held faith and he continued with his work because he saw himself as helping the church in the process. Men, after all, could be wrong in their interpretation of God's universe. If he could set them right, it was his duty to do so.

Not coincidentally, these were all values that Brecht and Galileo shared, and it's noteworthy that, after writing *Life of Galileo*, Brecht faced similar persecution. Brecht emigrated to America in 1941, after nearly a decade of self-imposed exile from his home country of Germany (since, as a socialist, he feared persecution by the Nazis). Yet, it was in America that his political beliefs would cause the greatest scandal. Brecht was called before Congress to testify about his political beliefs in 1947, during a period known as the "Red Scare" in which communists and socialists were persecuted as a danger to society. Though he'd written *Life of Galileo* almost a decade before that interview, the incident only serves to underscore Brecht's belief that those who go against the grain (as both he and Galileo did) will always suffer for it. Yet enduring that suffering, and continuing one's work despite it, stands for Brecht as one of the greatest services someone can offer mankind.

IDEAS AS INFECTION

The deadly bubonic plague ripped through Italy during Galileo's life, and in Brecht's time, hundreds of years later, an influenza outbreak gripped the entire world. Both Galileo and Brecht's societies went to great (and sometimes inhumane) lengths to stop disease from spreading, often by segregating the sick from the healthy, a method that had limited success. Not surprisingly, then, the idea of plague looms large in *Life of Galileo*, and it becomes a metaphor for the way in which powerful institutions try to stem the flow of ideas that challenge their authority. Thus, *Life of Galileo* positions ideas as a kind of contagion, and shows that attempts to keep people from coming into contact with knowledge are repressive and ultimately ineffective. Just like viruses, ideas tend to spread quickly and uncontrollably to others.

Because of the Church's authority, Catholics in *Life of Galileo* tend to recoil from Galileo's ideas just as they would from the plague. For example, when Galileo's housekeeper (Mrs. Sarti) is discovered to have contracted the plague, the townsfolk run past Galileo's home, whispering in fear and refusing to answer him when he speaks to them because they are afraid of catching the disease. Similarly, when they pass by him in the hall of the Inquisition, they refuse to greet him lest they be seen as supporting his ideas. Brecht strengthens this parallel through minstrel performances. The plague inspired travelling minstrel performers to depict those suffering from the disease, and the minstrels in *Life of Galileo* also sing songs about how horrible Galileo is.

Yet, once someone begins to understand Galileo's new knowledge, they start instantly to spread it—as the housekeeper's son, Andrea, does. The second that Andrea begins to learn that the sun doesn't revolve around the Earth, he starts to teach it to his mother. Later, he does the same for Cosimo, the Grand Duke of Florence. Galileo's lens grinder, Federzoni, is no different. Though he has been only recently exposed to Galileo's new ideas, he quickly presents them to a group of government astronomers and physicists who are amazed at his impertinence. Even those who should be strongly immune to his message, such as the Little Monk, fall under the sway of the "disease." The Little Monk is classically educated in philosophy and religion and he has Church-approved knowledge in mathematics. These should work as "antibodies" to Galileo's "virus." Indeed, it seems that the Little Monk hopes

to cure Galileo of his infection by using these resources. Nevertheless, being in Galileo's presence for only a short time is enough to infect the Little Monk.

At the heart of Galileo's ideas is the premise that one must question everything. This, even more than his specific questioning of Aristotle, is the core of Galileo's infection. As the Inquisitor points out to Barberini, Galileo has caused a veritable plague of doubting within Italy and elsewhere. The idea that the Church was wrong about one of its most central tenants has caused many to doubt its other doctrines, and perhaps even faith itself. Since Galileo, for instance, sea captains have begun to place their belief in star charts and compasses rather than God. The minstrel singers of the plague suggest that such questioning has extended even further into the realm of social life. After becoming infected with Galileo's questioning manner, for instance, tenants now berate their landlords, wives question whether they might achieve sexual satisfaction with men besides their husbands, and apprentices lie in bed rather than working. "Independent spirit," he warns, "spreads like foul diseases."

Like Galileo, Brecht had firm and iconoclastic ideas that he hoped would spread like a contagion. His ideas centered on the theater, an arena that (like Galileo's astronomy) had also been dominated for centuries by the theories of Aristotle (in this context, the idea that the theater should imitate reality as closely as possible). Brecht thought that the theater could be an amazing tool for encouraging intellectual debate and politicizing the masses, but that the naturalistic style prescribed by Aristotle had limited the theater's political efficacy. Brecht didn't want people getting wrapped up emotionally in his works; instead, he wanted them to think about the plays—to remember that they were a work of artistic artifice and not real life. Like Galileo's infectious ideas, Brecht's ideas on the theater angered some critics and probably scared them. And they spread. Most serious theater directors to this day work in the shadow of Brecht—whether in sympathy, in opposition, or in some combination of the two—which shows the continuing ability of Brecht's thought to "infect" others.

WORK VS. PASSION

Brecht's Galileo is a genius who wants nothing more than to keep his eyes firmly trained on the night sky, looking for answers to large-scale questions about existence and thinking about the way the universe works. He sees this labor as his true calling. Yet, as astronomy isn't a well-paid profession in Galileo's time, he finds himself constantly torn between his passion and the banal requirements of day-to-day life, like making money to pay for food. Such considerations tie Galileo down, rob him of energy and time, and ultimately limit his potential. Throughout the play, Brecht presents moments that seem to prompt the audience to ask themselves what would have happened if Galileo had been left to his own devices and allowed to work as he pleased. In turn, this becomes a strong indictment of the money's importance in our lives. It's obvious that the Galileo of Brecht's play did not achieve his full potential because he had to perform mindless work and face equally mindless persecution. In that light, Brecht's play becomes a polemic against working for money (another facet in his subtle advocating for socialism) because such work stifles progress for all of humanity.

To make ends meet, Galileo must hold three jobs: one as a lecturer at Padua University, one as a private tutor, and the last as an inventor. Each robs him of time. The first job, as a lecturer, seems the most likely to do service to humanity. After all, it allows Galileo to disseminate his ideas to future generations, who can use them and build on them. It also absorbs the least amount of his time: four hours each week in lecture, plus preparation. However, as the Procurator points out, Galileo's lectures do little to bring in new students, despite his fame, because mathematics will not be a profitable career for them. And, what's more, Galileo doesn't actually get to disseminate his own ideas to his students. He has to teach from approved doctrine, hammering in Aristotle, despite that he knows Aristotle to be wrong. Thus, his teaching job is not contributing to the progress of humanity.

While his work tutoring private students might offer an opportunity for him to undo this harm, it comes with its own set of problems. Only particularly well-off students, like Ludovico, can afford to be tutored by Galileo. Yet Ludovico has no real passion for the sciences. He's only dabbling in them to appease his mother until he can take over the family estate and concern himself solely with his horses. Good students who could build on Galileo's teachings in the future (students like Andrea) instead get bumped from Galileo's tutelage because they can't afford to pay. Furthermore, as Galileo tells the Procurator, the number of private students he has to take on to make up for his poor university wages taxes his time incredibly. "I teach and I teach," Galileo pleads, "and when am I supposed to learn?"

His third job, as an inventor, is not quite as cut and dry. Galileo's inventions do help humanity to progress while making him money. He invents a proportional compass, for instance, that allows even the mathematically disinclined to perform complex calculations with relative ease. It's used in banking for tasks like figuring compound interest, and in military endeavors for calculating the weight and trajectory of cannon balls. He also invents a water pump and irrigation system for Venice that help many people. This is not only useful work, but it's also work that Galileo claims to enjoy; however, it's also "kids' stuff" to him. It neither asks important questions nor helps to solve them. Instead, such work takes up Galileo's time when it could (at least in his mind) be completed by someone of lesser genius. Thus, while inventing does advance humanity, it does so to a far lesser degree than the work Galileo would do if he weren't so busy. Brecht explains the tragedy of this in the poetic opening

of the thirteenth scene, remarking that the day Galileo recanted his doctrine might have instead represented the dawning of a new age of reason had Galileo been able to devote himself fully to his passion.

GREATNESS

The "Great Man" theory of historical progress, which was developed in the nineteenth century, argues that history is shaped not by the cumulative lives of everyday people, but by a handful of individuals (who, despite the name, need not be men). According to this theory, such people are possessed of greater thoughts and are capable of greater deeds than their peers, and they move humanity forward in a way of which they alone are capable. Brecht certainly considers Galileo to be one of these great men, and the play grapples with the nuance of the "Great Man" theory. While *Life of Galileo* suggests that geniuses are essential to human progress, the conflict between Galileo and the ideas of Aristotle (who lived centuries prior to Galileo) shows that the hero worship of important historical figures can also obstruct progress, as the ideas of "Great Men" can be difficult to contradict even when they are clearly wrong.

Brecht explicitly establishes that Galileo is one of the greats (though he allows Galileo to maintain humility by never saying so himself). Galileo's own boss, the Procurator, says as much to his face: "Mr Galilei, we realise that you are a great man. A great but dissatisfied man, if I may say so." The Inquisitor says so, too: "It's easy to get lost in the world of the stars, with its immense distances, if one is a great man." Galileo's superior at the university in Florence adds: "I always feel that every moment stolen from that great man is a moment stolen from Italy." This establishes that Brecht considers Galileo's ideas to be uniquely important in their potential to redirect the course of humanity and further scientific progress.

Yet, a primary obstacle to Galileo's important ideas being accepted is the prestige of another great man from centuries earlier, Aristotle. Aristotle's ideas about the cosmos shaped centuries of religious and scientific thought, and Galileo's attempt to contradict aspects of Aristotelian thought is met with resistance from all kinds of people, institutions, and disciplines, including the Church, which holds Aristotle in high esteem. One philosopher who clashes with Galileo refers to "Aristotelis divini universum," Latin for "the universe of the divine Aristotle." This implies that Aristotle is more than a great man: he's divine. As Federzoni points out, Aristotle's doctrine is so believed that no one even bothers to confirm it. Conversely, Galileo's theories are subjected to criticism from all angles, including philosophy and theology as well as math and hard science.

Thus, for Galileo's greatness to truly be realized, he has to overcome the sway that Aristotle's theories hold on astronomy. Galileo believes that this can be done simply by showing men the world through the telescope. However, overcoming the greatness of Aristotle isn't that easy, since the men can't even be bothered to look. As Galileo says: "I offer my telescope so they can see for themselves, and everyone quotes Aristotle." The remainder of Galileo's life is spent building insurmountable proof of a truth that is right before mankind's eyes. Therefore, while Brecht clearly believes aspects of the "Great Man" theory of history, he also presents the drawbacks of attributing so much significance to the ideas of one person from long ago.

Brecht also uses Galileo's conflict with Aristotle to reflect his own life. Since Brecht's Galileo is a stand-in for Brecht himself, it's unsurprising that, just as Aristotle was responsible for the cosmological system that Galileo refuted, Aristotle was also the progenitor of the naturalist theatrical style (in which the theater imitated real life) that Brecht sought to overthrow in the twentieth century. Thus, Galileo's conflict with Aristotle is a subtle polemic against prevailing theatrical traditions, as well as a suggestion that Brecht's ideas should be taken more seriously, since he (like Galileo) is a misunderstood "Great Man" of his time. Aristotle's constant presence in *Life of Galileo* shows that Brecht not only firmly believed in the great man theory, but that he also saw it as the responsibility of great men to use their greatness to challenge and even overthrow the ideas of their predecessors.

SYMBOLS

Symbols appear in **teal text** throughout the Summary and Analysis sections of this LitChart.

APPLES

Galileo uses apples as a demonstrative aid in his lessons and as a symbol of forbidden knowledge. While teaching Andrea about Copernicus' model of the universe, Galileo uses an apple to represent the Earth. After the demonstration, Andrea takes the apple to use in a demonstration of his own to convince his mother of the truth of Galileo's ideas. Thus, the apple is a physical method of transmitting knowledge. Later, the apple takes on a more abstract dimension. When the Little Monk becomes captivated by Galileo's writings (which he had considered heretical only moments before), Galileo refers to the document as "an apple from the tree of knowledge" that the monk has "got to wolf down," even though it might mean damnation. In his later life, Galileo demands that Virginia cook all of his food with an apple, be it duck or liver with onions. In each instance the apple takes on the same symbolism that it has in Christian iconography: the forbidden knowledge with which Satan tempted Eve. For Andrea, the apple (which represented Earth orbiting the Sun) was a direct contradiction of the Church's teachings. For the Little Monk, the apple symbolized forbidden knowledge that,

once tasted, could not be repressed. Galileo's later obsession with apples in his food is proof that he never abandoned his earlier pursuit of forbidden knowledge, but instead kept it covertly wrapped up in other writings (the way he tucks apples into his liver and onions).

THE PROVING STONE

Much like **apples**, Galileo uses stones as a teaching tool. But where the apples represent forbidden truth, stones represent widely accepted knowledge that's wrong. Galileo uses stones most often as an attack on those who accept the teachings of Aristotle blindly when physical evidence easily disproves such ideas. Nobody of his time, Galileo laments, wants to truly know how a stone falls—instead, they merely want to know "what Aristotle wrote about it." Thus, when Galileo is forced into an argument with Aristotelians, he pulls a stone from his pocket, lets it fall to the ground, and then claims that it has risen, rather than fallen. This is a way for Galileo to mock the individual in question without doing so openly—it's his attempt to point out the hypocrisy of insisting that one thing is true when all evidence points to the contrary.

FIRE

Fire, flame, and burning are a constant presence within *Life of Galileo*. The reason is fairly obvious: Galileo fears being burned at the stake for his beliefs. Giordana Bruno (who is alluded to, but not named, in the text) had been burned at the stake fewer than ten years earlier for attempting (as Galileo does) to advance the teachings of Copernicus. Galileo reminds the Procurator of this, and in turn an old Cardinal reminds Galileo. Barberini alludes to it when he says "can one go upon hot coals, and his feet not be burned." In that, he means that Galileo steps on dangerous ground in confronting the Church on Aristotle. Yet Brecht suggests a subtler meaning of fire in his poetic foreword to the final scene of *Life of Galileo*. He implores the audience to use science properly "lest it become a flame" that consumes everything. By this, Brecht suggests that Galileo's questioning of Aristotle was both proper and productive, but that future generations need to question him as vigorously as he questioned his predecessors. Otherwise, contemporary science could become as blind and dogmatic as the authorities who threatened to burn Galileo at the stake for his beliefs.

QUOTES

Note: all page numbers for the quotes below refer to the Penguin Books edition of *The Life of Galileo* published in 2008.

Scene 1 Quotes

❝ On our old continent a rumor sprang up: there might be new ones. And since our ships began sailing to them the laughing continents have got the message: the great ocean they feared, is a little puddle. And a vast desire has sprung up to know the reasons for everything: why a stone falls when you let it go and why it rises when you toss it up.

Related Characters: Galileo Galilei (speaker), Andrea Sarti

Related Themes:

Related Symbols:

Page Number: 7

Explanation and Analysis

Galileo discusses with Andrea the increasing spread of knowledge among common people. This knowledge, he contends, causes people to question long-held beliefs about nearly everything. In this passage, Galileo shows Andrea how an increased understanding of the world makes the world less mystical (like the way that the oceans now suddenly seem small instead of immeasurable). While Galileo doesn't say it explicitly, he knows that this demystification tends to reduce the awe and fear that people have for religion. In that way, he's foreshadowing his conflict with the Church over the rise in critical thought that his work ushers in. It's important to note that Galileo must be aware of the possibility of these problems and that, nonetheless, he doesn't seem to care very much about them. This, however, should not be read as irreverence. Rather, Galileo—a devout Catholic—simply has faith that God intended man to learn all about the world.

Galileo's symbolic proving stone also makes its first appearance here. He uses it to demonstrate that the universe has immutable laws that are common sense—the stone rises when thrown up and falls when let go. He insists that people want to know why this happens, rather than being told incorrect physics that contradicts their clear and simple observations about the stone. Afterwards, Galileo won't explain what he means when he uses the stone to mock people. Instead, Brecht expects the audience to remember this moment.

❝ God help us, I'm not half as sharp as those gentlemen in the philosophy department. I'm stupid. I understand absolutely nothing. So I'm compelled to fill the gaps in my knowledge. And when am I supposed to do that? When am I to get on with my research?

Related Characters: Galileo Galilei (speaker), The Procurator

Related Themes:

Page Number: 13

Explanation and Analysis

The Procurator has just denied Galileo his raise. Since the Procurator knows that Galileo needs more money to live, he suggests that Galileo take on some private students. Galileo confirms that he already has, but this leaves him no time for his real work. Brecht probably meant for Galileo's comment about the genius of the men in the philosophy department to be tongue-in-cheek—possibly even played for laughs. Certainly, it reads that way today. A great thinker like Galileo, whose inventions and discoveries impacted the world around him, had to feel at least a little jealous of philosophers, whose contributions were more valued in the sixteenth century. After all, they made more money than Galileo, despite having never invented a thing. Regardless, as Galileo's character continues to be developed, his assertion that he's "stupid" can be seen as clearly farcical. Galileo is quite confident in his intelligence (although he *is* dedicated to constant education). What isn't clear, however, is whether the Procurator is meant to know this or whether Galileo is attempting to seem genuine.

Scene 2 Quotes

Today a world-famous scholar is offering you, and you alone, a highly marketable tube, for you to manufacture and sell as and how you wish.

Related Characters: The Procurator (speaker), Galileo Galilei

Related Themes:

Page Number: 19

Explanation and Analysis

The Procurator announces Galileo's (borrowed) invention to a cheering public. This is cause for great celebration, because it's a new item intended to be manufactured and sold exclusively by Venetians (even though the Dutch have already invented it). Besides the obvious irony of this being an appropriation rather than an invention, the joke hidden in this moment is that the "highly marketable tube" has scientific implications for mankind beyond anything even Galileo can imagine, but the unimaginative masses, so caught up in day-to-day commerce, can only think about how they might gain from it financially. Meanwhile, the Procurator addresses Galileo as "world-famous" while having only moments before (in the time of the play) denied him a raise, because his work was not valuable. Galileo himself certainly recognizes that the crowd has no real interest in him or his invention, and he generally ignores the event altogether.

I'm telling you astronomy has stagnated for the last thousand years because they had no telescope.

Related Characters: Galileo Galilei (speaker), Sagredo

Related Themes:

Page Number: 19

Explanation and Analysis

Galileo has begun to use the telescope to find out new things about the universe. In doing so, he's realized that a lot of accepted scientific knowledge is wrong. The logic of this sentence is somewhat standard: you could easily say that any field has been stagnant up until its latest breakthrough was unveiled. But Galileo doesn't simply say that his field has been stagnant recently; he says it's been stagnant for a thousand years. Given that Galileo lived in the 1500s, this means that only the most basic observations of astronomy (those made with the naked eye) have any merit whatsoever. Any theories built off those observations are now suspect, and likely useless, since the telescope can test them all. As before, Galileo knows very well that this includes the Church's entire understanding of astronomy.

Scene 3 Quotes

What you're seeing is the fact that there is no difference between heaven and earth. Today is 10 January 1610. Today mankind can write in its diary: Got rid of Heaven.

Related Characters: Galileo Galilei (speaker), Sagredo

Related Themes:

Page Number: 22

Explanation and Analysis

Still discussing his discoveries with Sagredo, Galileo is now

prepared to say outright that the Earth revolves around the Sun. This has the unfortunate consequence of eliminating heaven, the place in which God is said to physically live. Though he is a committed believer, Galileo's brashness here clearly shows that his faith lies more with God than with Church doctrine. Tearing down this important tenet of the Church's belief is just a mere side-note in mankind's diary for him.

"Got rid of Heaven" isn't Galileo's own phrase; it's an invention of Brecht's. It mimics a famous phrase from German philosopher Friedrich Nietzsche that "God is dead" and mankind has killed him. Both phrases invite a question of "now what?" Nietzsche's answer was highly pessimistic. Brecht's answer, however, can be seen in Galileo's optimism; Galileo embraces happily the new potential for knowledge and understanding that sweeping away old misconceptions allows.

❝ [T]he horny-handed old woman who gives her mule an extra bundle of hay on the eve of a journey, the sea captain who allows for storms and doldrums when laying in stores, the child who puts on his cap once they have convinced

him that it may rain: these are the people I pin my hopes to, because they all accept proof. Yes, I believe in reason's gentle tyranny over people. Sooner or later they have to give in to it.

Related Characters: Galileo Galilei (speaker), Sagredo

Related Themes:

Page Number: 27

Explanation and Analysis

Galileo brushes away Sagredo's concerns that debunking Aristotle will cause trouble. Galileo's constant refrain has been that he believes in the reason of man. Here (though he doesn't come right out and say it) he shows that he believes most in the reason of common men and women. It's almost as if Galileo is saying that he can't expect procurators and priests to use their reason, but he knows that average people will. Procurators and priests, after all, have all the power in the world. They don't have to give in to anything (or question themselves, even when presented with overwhelming evidence). As with all moments of solidarity with commoners in the play, this sides as closely with Brecht's socialism as it does with Galileo's faith in reason.

❝ Copernicus, don't forget, wanted them to believe his figures; but I only want them to believe their eyes.

Related Characters: Galileo Galilei (speaker), Sagredo

Related Themes:

Page Number: 30

Explanation and Analysis

Copernicus was the first to posit the planetary system that Galileo proved with his telescope, but because Copernicus lacked any way to prove it observationally (he could prove it only through mathematical models) he wasn't taken seriously. This sets up a special problem. Copernicus could *prove* his system mathematically (through his "figures"), but most people couldn't read, let alone understand the mathematics involved. In this way, his figures were simply marks that claimed to explain how things worked—few people could understand them, and everyone else had to just take Copernicus at his word. The Church, however, didn't want *anyone* to take Copernicus at his word since he contradicted the Bible, and most people believed that the Bible was written with the help of God. Thus, Copernicus was fighting an uphill battle. Galileo, however, is confident that his telescope will sidestep this problem nicely. Even without the ability to read or do math, anyone that could see could come to understand (and then believe) that his system is correct.

Scene 4 Quotes

❝ You're an idiot, and to hell with manners, just give it over or you'll start something.

Related Characters: Andrea Sarti (speaker), Cosimo de Medici

Related Themes:

Page Number: 34

Explanation and Analysis

Andrea has tried to explain to Cosimo about Copernicus' system using a model, but the tutoring session turns instead into a scrap. Brecht almost certainly intended this scene to be comic relief in comparison to the long, philosophical speeches Galileo has been giving. Cosimo is the Grand Duke of Florence, dressed in full pomp and accompanied by a whole train of old, learned men. Andrea calling him an idiot before wrestling around with him on the floor probably caused a lot of laughs. Looking deeper, however, their tussle can be seen as a microcosm of the one between Galileo and

the Church. Both are childish in their own ways: Galileo himself admits that he has no real knowledge, and Andrea (only young a student of Galileo's) certainly can't have much either. The Church, meanwhile, incessantly clings to the belief that it has both power and knowledge (just like Cosimo), even though its knowledge is objectively shaky. The entire play can be seen as Galileo's subsequent struggle with the Church, and this is a way of recasting that struggle—if only briefly—as comic.

Right, then let's have new textbooks.

Related Characters: Federzoni (speaker), Galileo Galilei, Cosimo de Medici

Related Themes:

Page Number: 38

Explanation and Analysis

Federzoni breaks into Galileo's conversation with the Cosimo and Cosimo's advisors. The advisors have just told Federzoni that any textbook will prove that Galileo is wrong. Federzoni's response is at once fearless, simple, and evocative. Federzoni doesn't have the education or scientific knowledge that Cosimo's people have, but he has seen Galileo's proofs and isn't afraid to stand up for them. Remember, too, that Cosimo's scientists aren't just academics: they're advisors to the most powerful politician in the land. If Federzoni's impertinence had angered them enough, he could be in a lot of trouble. However, Galileo seems to have infected him with his passion, and Federzoni doesn't appear all too worried about the consequences.

It's also important to consider this scene in the context of Brecht's socialism. Federzoni is an uneducated common man, but in this moment he is a hero for scientific freedom and progress. Brecht, like most socialists, believed that the common man would be at the forefront of socialist revolution, standing up to corrupt power for what is right. So, however unlikely it may seem that an uneducated man is shown to be a champion of science, it's important to see this scene as a political allegory.

Scene 5 Quotes

Just like them. It's their whole system of government. Chopping us off like the diseased branch of some barren figtree.

Related Characters: Galileo Galilei (speaker)

Related Themes:

Page Number: 44

Explanation and Analysis

The plague has ravaged Florence and Galileo finds himself trapped in his home, under quarantine by soldiers. Galileo's statement here explicitly refers to the government's attempt to stem the spread of plague by isolating ("chopping off") those who are or might be "diseased." However, Galileo's statement is also figurative, referring more generally to how the government and Church will deal with his ideas. When Galileo is doing what the authorities expect him to do, he's left alone. When he isn't (like when he publishes works that question Aristotle), he's surrounded by authorities and generally "cut off." Much like the soldiers who won't talk to Galileo during the plague because they think he's infected, Cosimo and the entire religious community will stop their dialogue with Galileo once he begins to attack Aristotle again.

As if a book could make any difference.

Related Characters: Galileo Galilei

Related Themes:

Page Number: 46

Explanation and Analysis

Galileo has asked the soldiers to bring him a book that he needs in order to continue his research during the plague. While the soldier is not named, this moment is telling in that it's the first of two such instants in which a soldier derides the ability of books to have an impact (the second is at the end of the play, when Andrea escapes Italy with Galileo's forbidden transcript). This soldier, of course, literally means that the book won't matter to Galileo, because he has the plague and is going to die. However, in a broader context, the statement becomes something more like "what can a book matter when I have weapons?" The answer is obvious to anyone watching or reading the play: Galileo's book changed the entire course of history, and because of it his name remains ubiquitous centuries later.

Scene 6 Quotes

I am told that this Mr. Galilei moves mankind away from the centre of the universe and dumps it somewhere on the edge. Clearly this makes him an enemy of the human race. We must treat him as such. Mankind is the crown of creation...God's highest and dearest creature. How could He take something so miraculous...and lodge it on a remote, constantly elusive star?...How can there be people so perverse as to pin their faith to these slaves of the multiplication table?

Related Characters: Galileo Galilei

Related Themes:

Page Number: 50

Explanation and Analysis

Galileo waits for the results of Clavius' examination of the telescope. Meanwhile, he is scorned by members of the clergy and openly mocked by an unnamed old cardinal. Though the cardinal is not a significant character, he serves an important purpose in this speech. He demonstrates the sincerely-held beliefs of Galileo's time and the danger that people saw in Galileo's questioning of authority. While it's easy, today, to look down on people like the very old cardinal (because we know Galileo was right), Brecht includes his impassioned speech to remind readers that there was real passion involved in these seemingly boring, intellectual debates about how planets move. The cardinal's incredulity that some people put their faith in multiplication tables might seem silly, but remember that, for him, it was God that created mathematics, and He could choose to not be bound by mathematical laws if He so desired.

Mr. Galilei, before he left Father Clavius said: Now it's up to the theologians to see how they can straighten out the movements of the heavens

once more. You've won.

Related Characters: The Little Monk (speaker), Galileo Galilei

Related Themes:

Page Number: 51

Explanation and Analysis

Clavius has confirmed Galileo's observations, and the Little Monk (not yet one of Galileo's students) relates to Galileo what Clavius said. It's important to note that while Clavius admits that Galileo, an astronomer, has debunked Aristotle's version of the heaven's movements, he hasn't left it up to astronomy to figure out what's really going on. Instead, the ability to dictate the Church's official view on the matter remains firmly entrenched with theologians, the selfsame people that fought to maintain the old, incorrect system. So, while it's easy to read this as a victory for Galileo, it's also correctly read as a foreshadowing of what's to come. The Church and its politics will continue to trump science.

Scene 7 Quotes

Welcome to Rome, Galileo my friend. You know its origins? Two little boys, so runs the legend, were given milk and shelter by a she-wolf. Since that time all her children have had to pay for their milk.

Related Characters: Cardinal Barberini (later Pope Urban VIII) (speaker), Galileo Galilei

Related Themes:

Page Number: 55

Explanation and Analysis

Galileo has come to Rome to celebrate Clavius' findings and he speaks with Barberini, the extremely intelligent priest who later becomes Pope. This quote is part of a larger dialogue replete with biblical passages and witticisms. The story that Barberini tells here is, indeed, the common founding myth of Rome. Its central motif is that, while Rome was founded on charity, since its founding everyone has had to earn their keep. This is a veiled message to Galileo that there will be a price to pay for his victory. As a priest, Barberini is tied firmly to the Church, but his conversation with Galileo in this passage shows him to have a genuine fondness for the man and his upstart sensibilities. Rather than a threat, then, this comes as a warning.

He's a terrible man. He cheerfully sets out to convict God of the most elementary errors in astronomy. I suppose God hadn't got far enough in his studies before he wrote the bible; is that it?

Related Characters: Cardinal Barberini (later Pope Urban VIII) (speaker), Galileo Galilei

Related Themes:

Page Number: 56

Explanation and Analysis

Barberini continues his dialogue with Galileo. It's easy to read these passages as mean-spirited towards Galileo. It may even be tempting to do so: given Galileo's antagonism towards the Church, it would only be natural for priests to want to deride him. But, again, Barberini is fond of Galileo. What's more, he recognizes Galileo's brilliance and the impossible situation Galileo finds himself in. Thus, rather than antagonistic, this becomes a kind of good natured ribbing. Galileo, for his part, doesn't understand the nature of the conversation in the beginning, but he slowly picks it up. In the end, this back-and-forth is more than enough to convince Galileo to count Barberini as a friend and ally, rather than just another priestly detractor.

Scene 8 Quotes

❝ Our poverty has no meaning: hunger is no trial of strength, it's merely not having eaten: effort is no virtue, it's just bending and carrying. Can you see now why I read into the Holy Congregations decree a noble motherly compassion; a vast goodness of soul?

Related Characters: The Little Monk (speaker), Galileo Galilei

Related Themes:

Page Number: 63

Explanation and Analysis

The Little Monk, unknowingly about to be converted to Galileo's cause, comes to Galileo to explain why he's given up astronomy. Remember that the Little Monk first appeared after the very old cardinal had given his speech. The Little Monk's speech here rings many of the same bells, showing passion in defense of the Church's doctrine. Rather than taking the proud, educated stance that the old cardinal assumes, however, the Little Monk instead advocates for the role of the Church in giving meaning to the meaninglessness of everyday existence. People like Galileo might be smart and brave enough to live in a world where nothing is certain, but for the average person working hard just to survive, the Church provides a certainty that makes the struggle of life worthwhile. This passion for the common man is notable. Once his belief in Aristotle's system is irrevocably broken by Galileo, the Little Monk immediately makes it his mission to find a suitable replacement.

❝ An apple from the tree of knowledge! He's wolfing it down. He is damned forever, but he has got to wolf it down, the poor glutton.

Related Characters: Galileo Galilei (speaker), The Little Monk

Related Themes:

Related Symbols:

Page Number: 65

Explanation and Analysis

Galileo has successfully tempted the Little Monk back into the study of astronomy by offering him hitherto unpublished papers containing "forbidden" knowledge. Galileo's use of the verb "wolf" twice here is striking. "To wolf" means to devour something quickly, in a gulping, animal sort of way. But after he consumes Galileo's knowledge, the Little Monk becomes something of a wolf himself. That is, he becomes a predator who seeks out weaknesses in extant systems of knowledge the way wolves seek out the weakest animal in the herd. Then he attacks them. The Little Monk is even part of a pack, formed by Galileo (clearly the pack's alpha), Andrea, and Federzoni.

Scene 9 Quotes

❝ For three months I'll have to be careful, because the sun will be in Aries, but then I shall get a particularly favourable ascendant and the clouds will part. So long as I keep my eye on Jupiter I can travel as much as I like, because I'm an Aries.

Related Characters: Virginia (speaker), Mrs. Sarti

Related Themes:

Page Number: 68

Explanation and Analysis

Mrs. Sarti has advised Virginia to see a "proper" astronomer prior to her wedding with Ludovico. Virginia happily reports that she already has and she fills Mrs. Sarti in on her horoscope. As careful as Brecht has been to provide realistic and heartfelt counterpoints to Galileo (in the form of the old Cardinal and Little Monk's speeches), he can't help but poke a little fun at the superstitions of Galileo's day. This is precisely the kind of hocus-pocus Galileo had in mind when he told Sagredo that the study of astronomy had been stagnant for a thousand years without the telescope. This is

also precisely the sort of thing that will remain in vogue so long as Galileo is forbidden from doing his work. It's unfortunate, though, that Brecht chooses Virginia—one of the few female characters in the play—to fall for such frivolity. It forces her to confirm many unfounded stereotypes about the inability of women to understand science or to undertake life in a serious way.

Scene 12 Quotes

❝ No! No! No! I am not going to have the multiplication table broken. No!

Related Characters: Cardinal Barberini (later Pope Urban VIII) (speaker)

Related Themes:

Page Number: 87

Explanation and Analysis

Barberini (who is now Pope) and the head of the Inquisition discuss what is to be done with Galileo. The Inquisition has obvious desires to question and punish Galileo. Barberini, however, refuses. Remember that all of Barberini's speech previously has been eloquent, witty, and thoughtful. Here, however, his passions are so aroused that he's reduced to just negating what the Inquisitor has said. Note, too, that he makes no mention of Galileo whatsoever: he knows that the stakes are far higher than one man. Galileo has come to represent the Church's basic commitment to science. Barberini knows that if the Inquisition has its way with Galileo, there will be no end to the attack on science. Even basic knowledge like the multiplication tables might someday become suspect.

Scene 13 Quotes

❝ Wine-pump! Snail-eater! Did you save your precious skin?

Related Characters: Andrea Sarti (speaker), Federzoni, The Little Monk, Galileo Galilei

Related Themes:

Page Number: 94

Explanation and Analysis

Galileo has recanted his research and his group of students reacts. Andrea is the most vocal and hurtful among them.

For his entire life, Andrea has held Galileo up as a beacon of intellectual vigor and curiosity. In turn, Galileo has given Andrea a life he could have scarcely dreamed of otherwise: that of an accomplished, well-educated academic. Thus, for Andrea the intellectual world is everything, and he feels that Galileo has abandoned that world for such base things as wine and fancy foods. In that light, Andrea doesn't even attempt to make an intellectual argument about what Galileo has done. Instead, he attacks him strictly on personal grounds. Probably, he believes this will hurt Galileo the most. Even though Andrea seems righteous here to insist that Galileo stand up for his important work at all costs, Andrea proves to be too young to understand the nuance of Galileo's plan to save his work. Brecht, then, uses this moment as a way to bait-and-switch the audience: they side with Andrea here, and then realize—as Andrea does—what Galileo is really up to.

Scene 14 Quotes

❝ You were hiding the truth. From the enemy. Even in matters of ethics you were centuries ahead of us.

Related Characters: Andrea Sarti (speaker), Galileo Galilei

Related Themes:

Page Number: 102

Explanation and Analysis

Years have passed and Andrea visits Galileo, discovering in the process that Galileo never stopped researching. Though Brecht's play doesn't present the Church in a very forgiving light, Andrea's reference to the Church here as "the enemy" (often a nickname given to Satan) is at once strong and surprising. Through continued use of the apple symbol, Galileo himself has been aligned with the Devil. But here, in the end, that title goes to the Church. Importantly, Andrea adds that Galileo was not simply right about astronomy, but also ethics: something to which the Church traditionally claims authority. This further aligns the Church with evil.

This passage also has political implications, since Andrea says that Galileo was "centuries ahead of us" on ethics. Centuries later, when the play was written, Brecht seems to be saying that an ethic of achieving progress by any means necessary (even by concealing true intentions under a façade of betraying the cause you love) is acceptable and even required.

> The poverty of the many is as old as the hills, and from pulpit and lecture platform we hear that it is as hard as the hills to get rid of. Our new art of doubting delighted the mass audience. They tore the telescope out of our hands and trained it on their tormentors, the princes, landlords and priests. These selfish and domineering men, having greedily exploited the fruits of science, found that the cold eye of science had been turned on a primaeval but contrived poverty that could clearly be swept away if they were swept away themselves.

Related Characters: Galileo Galilei (speaker), Andrea Sarti

Related Themes:

Page Number: 104

Explanation and Analysis

As with the play's opening, Galileo here talks to Andrea about the impact that constant questioning has had on the world. It's the last time they'll ever speak, and he's essentially recapping their work. Here, however, the voice is clearly not Galileo's at all, but rather Brecht's. This is made obvious by the movement from scientific questioning to a political one. In this passage, Brecht seems to be offering one final (and perhaps heavy-handed) key to anyone who has missed the subtle socialist overtones he's presented up until now. Certainly, the kind of revolution that Galileo advocates here will not come into vogue for many centuries until after the real Galileo died.

SUMMARY AND ANALYSIS

The color-coded icons under each analysis entry make it easy to track where the themes occur most prominently throughout the work. Each icon corresponds to one of the themes explained in the Themes section of this LitChart.

SCENE 1

Andrea enters, carrying Galileo's breakfast. He discusses the need for Galileo to pay the milkman, advice which Galileo jokingly dismisses.

A very mundane opening, given the audience surely knows something about how famous Galileo becomes.

Galileo shows Andrea a wooden model of the Ptolemaic astronomical system. The model shows the Earth at the center of the universe, with a series of eight crystal spheres holding the Sun, Moon, and planets. Andrea is impressed with the model but says that it feels too "shut in." Galileo agrees, adding that more people are beginning to feel the same way, as humans discover more and more about their world. Sailing the seas has taught mankind just how large the world is, and he suspects that astronomy will come to similar conclusions about the universe soon.

This moment secures, early on, just how confident Galileo is in the ability of common sense and rationality to overcome years of received wisdom. Even Andrea, who has no formal education whatsoever, understands intuitively that something is wrong with the Ptolemaic system. Yet, Galileo seems to understand very little about just how hard (and even treacherous) the journey to enlightenment will be.

Galileo talks briefly about some of mankind's recent discoveries. He broadly mentions the finding of new continents. But he also talks about a time when he personally witnessed workers abandon a millennia-old way of moving building materials after recognizing how they might do it more efficiently. Galileo tells Andrea that things which have never been doubted before are now beginning to be doubted. This doubt, Galileo says, will usher in a broad exchange of ideas for everyone, such that even the sons of fishmongers will be well-educated.

Galileo's belief that "even the sons of fishmongers" would eventually be well-educated seems like a pejorative against such people. But it's not that Galileo looks down on fishmongers or their children. Rather, he recognizes that such highbrow concerns as the motion of planets have rarely affected them. He believes his new discoveries, however, will change everyone's life.

Galileo then quizzes Andrea on his lessons, specifically about the teachings of Copernicus, who argued that the Sun is motionless at the center of the solar system (rather than the Earth being at the center of the universe). Andrea says that he's too young to understand it all and, anyway, it must be wrong. He can see that the sun moves through the sky, so it's impossible that it sits motionless. Galileo starts to show him how the sun might appear to move while remaining stationary, but they are interrupted by Mrs. Sarti.

Andrea unconsciously uses Galileo's own tool (of proof through observation) against him in this childlike questioning of authority. By showing how easily observational data can be misinterpreted, Andrea confirms the necessity of the complex mathematics that back up Galileo's theories. He also shows how "catching" Galileo's tendency to question perceived wisdom is, too.

Sarti chastises both Galileo and Andrea for discussing such blasphemies as the Earth revolving around the Sun. She tells Galileo that a young student, Ludovico, has come. Ludovico wants Galileo to tutor him, and Mrs. Sarti thinks it's imperative that Galileo do so, since they're short on money for milk.

The quick movement from grandiose discussions of the universe and celestial bodies to pedestrian concerns about milk money is quite striking. It helps the audience to understand why Galileo cares so little about such trivial concerns.

After Mrs. Sarti leaves, Galileo again tries to demonstrate to Andrea. This time, he uses an **apple** to represent the Earth. Andrea, however, doesn't like Galileo using these sorts of examples, as they don't work when he tries to replicate them for his mother. Nevertheless, Galileo persists, showing him not only how the sun might appear to move while stationary, but also why he doesn't fall off the Earth as it spins. Andrea expresses confidence that he can teach this lesson to his mother.

In the bible (Genesis 3:5), Satan tells Eve that if she eats the forbidden apple, she'll be like God—"knowing both good and evil." Brecht uses Galileo's apple in much the same way. But, because Galileo is the main character and has the audience's sympathies, he doesn't pick up all the negative associations that Satan does.

Ludovico enters with Mrs. Sarti and Galileo quizzes him. He discovers that Ludovico has been sent by his mother, who wishes him to have some tutoring in the sciences. Galileo's name is famous throughout Europe, and she wants her son to have the best. Ludovico, however, says he prefers horses to science—Galileo punishes him for this by raising the estimated cost of his tuition. Galileo also informs Andrea that he will no longer be able to tutor him, since Ludovico can pay and Andrea can't. Andrea leaves with the **apple**.

This is the flipside to the absurdity of Galileo interrupting his work to earn milk money. Andrea has an inquisitive mind and a natural talent for astronomy, but he is forced out because he lacks money. Meanwhile, Ludovico, who has no interest whatsoever in astronomy, is tutored (almost against his will) by the world's greatest authority on the subject.

Ludovico begins describing how bad at understanding science he is. In doing so, he offhandedly mentions a new invention in Amsterdam that confused him totally: the telescope. Galileo asks him to describe the invention in detail, which Ludovico does, and Galileo sketches it. Before Ludovico leaves, Galileo agrees to take him on as a student. He then sends Mrs. Sarti off with a prescription for two glass lenses he wants made.

Ludovico unwittingly enters into the global marketplace of ideas that Galileo discussed with Andrea earlier. This is one of many moments in the play where the right people being at the right place at the right time changes the course of history, through the simple act of sharing ideas freely.

Directly after, the Procurator of Padua University arrives to tell Galileo that the raise he requested has been denied. Galileo responds that he can't live off of what the University is paying him. The Procurator wonders why Galileo doesn't take on private pupils, given his excellent reputation. Galileo has, but this additional work leaves him with no time to read, think, or experiment. The Procurator counters that, though Padua may pay less than other employers, it at least offers freedom from religious persecution. This, however, matters little to Galileo, as his current workload doesn't allow him the time to think. He also reminds the Procurator that it was the University that handed over Giordano Bruno to be **burned** at the stake for advocating for Copernicus.

While sharing ideas might be enough to change the course of history, Brecht always builds in moments such as these, where everyday concerns like money stop progress. Here, he creates a similar obstacle out of persecution. Thus Galileo must teach mundane things or starve. He must also teach the correct things or burn. It is a testament to Galileo's status as a great man that he consistently pushes beyond these barriers to think new (and even dangerous) thoughts.

The Procurator laments that a great intellectual like Galileo didn't choose a more profitable field of study, like philosophy. He suggests that if Galileo needs more money, he'll have to invent something useful, like the proportional compass he recently created. Galileo calls such work "kids' stuff" and rejects it outright.

Though the study of philosophy probably was quite lucrative in Galileo's day, the idea that philosophy would be more profitable than a career in the hard sciences is as laughable today as it was in Brecht's own time.

Andrea returns with the **apple** and the lenses Galileo requested from Mrs. Sarti. Galileo begins constructing a rudimentary telescope, while telling Andrea that he must stop telling others about the ideas of Copernicus, as they'll get him into trouble. Andrea tells Galileo that he'd like to be a physicist when he grows up; his mentor approves. At the end of the scene, Galileo hands a hastily assembled prototype telescope to Andrea, who is able to see great distances with it. Galileo believes the "invention" will more than make up for his denied raise.

Readers might be taken aback by Galileo's carefree theft of intellectual property here. Such a reaction is understandable, yet problematic on three counts. First, great men are in no way required to be moral ones (indeed, many might be said to be wholly amoral). Secondly, Galileo believes in the open exchange of ideas. Lastly, he surely believes that he would have invented the telescope himself, if he only had the time.

SCENE 2

The next scene opens with a celebration at the harbor of Venice. Galileo's "new" telescope (which they affectionately call his tube) has astonished everyone, and the entire town is celebrating.

It's noteworthy that the town doesn't celebrate Galileo's great thoughts, *but rather the tangible* thing *he's made.*

Galileo doesn't have much interest in these festivities, he tells his friend Sagredo, even though the telescope has made him money (including securing his raise from the university). He's seen something in the telescope that makes such frivolity trivial: the moon doesn't generate its own light. This discovery makes him wonder if the telescope can't be used to disprove other theories as well. Sagredo warns him to be careful.

The moon appears to shine because its surface reflects sunlight back onto the Earth. In Galileo's day, however, it was believed that the moon must (somehow) generate its own light, since both it and the Sun revolved around the Earth. This isn't explained to the reader, which creates a useful confusion.

Virginia enters with Ludovico. Galileo mentions that he improved the telescope from the Danish version. Ludovico says he can tell: the Danish version was green, while Galileo's is red.

Ludovico's tongue-in-cheek admonishment of Galileo establishes Ludovico as a capitalist to Galileo's more communistic understanding of intellectual property rights.

SCENE 3

Galileo and Sagredo are looking through his telescope at the moon. Sagredo struggles to understand what he's seeing, because he's been taught all of his life that the moon is a dim star. Through the telescope, however, it appears to have mountains and plains. Sagredo refuses to believe Galileo's explanations, and he warns Galileo once again, this time mentioning Giordano Bruno, who was recently **burned** at the stake for advancing heretical astronomical views.

This passage places Bruno among the great men that the play confronts (along with Aristotle, Copernicus, and, of course, Galileo), and shows the "conversation" these men have across the ages. But his name also must make the act of his burning more real for Galileo, as well.

Galileo, however, continues. He says that there is "no difference" between Heaven and Earth and that this day would go down in history as the day that man "got rid of heaven."

This quote appears to be an invention of Brecht's and not a quote from Galileo himself.

Mrs. Sarti interrupts the two men to introduce the Procurator. He has arrived to tell Galileo the shocking news that the telescope wasn't an original invention. A Dutch merchant has just arrived and is unloading an entire shipment of them as they speak. The Procurator is indignant—he says Galileo has made him the laughingstock of the city—but Galileo shrugs off the Procurator's concerns. He's convinced, if nothing else, that the star charts he'll be able to create with the device will more than compensate for his lies about inventing it, since they will give captains the ability to navigate the ocean by the stars. Enraged, the Procurator storms off, slamming the door.

Galileo is absolutely right about the value of the star charts. While the Procurator is upset about Galileo's deception, he has no real reason to doubt him about it. He knows that Galileo has invented remarkably useful things in the past. This moment, however, highlights a third consideration that weighs Galileo down. In addition to concerns about money and persecution, he must also worry about how his work will affect the reputation of his superiors.

Sagredo asks if Galileo knew about the Dutch telescopes beforehand. Galileo confirms that he did, but also that he didn't care. He did improve on them, he says, and at any rate he absolutely had to have the money. Even with the extra money, he still has debts he can't pay.

Galileo's debts appear occasionally throughout the play. He likes the finer things in life: good food, good wine, and rare books. Mostly this predilection for finery just serves as a kind of comic relief.

The two men return to the telescope, though Sagredo admits that he's scared to see what else Galileo will show him. They look at the moons of Jupiter (which he calls stars) and discover that one's missing. The only possible explanation is that the moon has gone *behind* the planet. But for this to be possible, it would somehow have to have punctured the crystal sphere that holds Jupiter. Galileo becomes extremely excited by their discovery and declares loudly that Copernicus was right—there were no spheres. He calls for Andrea, while Sagredo tries to quiet him, telling him to think more slowly and calmly. Sagredo warns him that even if what they've discovered is true (which he believes it is), the discovery will create a lot of trouble for Galileo.

It's easy for the audience to side with Galileo, because history (and science) has proven him correct. By showing Galileo's mania here in contrast to Sagredo's measured call for level-headedness, however, Brecht hopes that the audience will consider how the average person might have at first felt about Galileo's ideas. Those who doubted Galileo in his time weren't fools, he seems to say, any more than those who doubt communism today are. They were (and are), nevertheless, wrong.

By way of explaining, Sagredo asks Galileo where God is if He's not in the Heavens, which angers Galileo. Galileo responds that he's a mathematician, not a theologian. If God lives anywhere, he says, it must be within men. Sagredo contends that Galileo's profession won't matter to the Church, who will **burn** him for a heresy like that. They have, after all, done so to others—and in the not-so-distant past. Galileo replies that those men didn't have the telescope and so they couldn't provide the proof that he has. Since people align themselves with reason, and his proof bolsters that reason, Galileo believes that he will be safe. Sagredo, however, says that nothing in his life has ever taught him that people will act the way Galileo expects.

Sagredo's question doesn't seem to matter to Galileo, which might call into question Galileo's Christianity. It shouldn't. Wherever God exists is beyond Galileo's ability to prove. Instead, God has given Galileo the ability to prove other things about the universe—things that no one else has yet been able to prove. Galileo is also confident that God gave man reason. Reason, in turn, gave man the ability to understand Galileo's proofs. Thus Galileo believes that the very way God created man will protect Galileo from persecution.

Still, when Virginia appears moments later, Galileo forbids her from looking through the telescope. He even downplays the invention in front of her, calling it a "flop" that has only helped him to discover some dim stars.

It's unclear at this point whether Galileo seeks to protect Virginia from the stigma of questioning Church doctrine, or whether he distrusts his own daughter.

Galileo also tells Virginia that he's written to the Grand Duke of Florence, asking for a job. Sagredo bristles at this, because Florence is run by monks who will not accept Galileo's attacks on Aristotle's system. But Galileo says he must have both the money and the time to work on his proofs. He feels confident that he will be able to "drag the monks" to the telescope if he needs to show them the validity of his work. He also plans to sweet talk the Duke by naming the newly discovered stars after the Duke's family.

Galileo certainly seems very confident about his decision to move to Florence—that is, his words indicate that he's confident. Brecht offers nothing about how Galileo felt, internally, about this decision. Instead, it's helpful to imagine how one might feel one's self if forced to put convictions (even sincerely held ones) to the life-or-death test that Galileo does here.

SCENE 4

Galileo has moved to Florence with his housekeeper (Mrs. Sarti), Andrea, and Virginia. Mrs. Sarti prepares for the arrival of the Grand Duke of Florence, Cosimo de Medici, whose scientists want to examine the stars Galileo discovered. Cosimo arrives sooner than Mrs. Sarti expects (before Galileo has returned home from work) and he rushes upstairs to see "the tube." His attendants, who are elderly, remain behind waiting for Galileo. This leaves Andrea alone with Cosimo, and the two soon get into a scuffle over the wooden model depicting Aristotle's model of the universe. Andrea expresses his annoyance that the young Duke doesn't instinctively know that the model is wrong.

Cosimo's youth is a historical reality, but it's also helpful here in showing the politics of the day. While nominal political control was held by governments, these were essentially "children" that needed to be tutored and led, by the Church. In this sense, Andrea could be seen here (in his tussle with Cosimo) as representing empiricism: a new power looking to influence leaders, but still not mature enough to have real power.

When Galileo arrives with his lens-grinder and friend, Federzoni, the rest of the court accompany him upstairs. He talks to Cosimo's scientists about how mathematics have, for some time, been unable to explain certain celestial occurrences using Aristotle's system. The "stars" orbiting Jupiter are one such example. Galileo offers to show the scientists these stars, but they want first to discuss the matter. They begin in Latin, but Galileo demands that they continue in Italian for Federzoni's sake. The scientists present Aristotle's understanding of the world as true, and suggest to Galileo that, since his findings differ from Aristotle's, he must've made a mistake. Federzoni assures them that Galileo hasn't erred, but they again evoke the name of "the divine Aristotle" as proof. Federzoni's suggestion that Aristotle had no telescope is met with outrage: according to Cosimo's court, he didn't need one.

Latin was used for a long time in Europe both by scientific and ecclesiastical societies, both for its beauty and the clarity of thought needed to express one's self in it. Even today, Latin is still used in such arenas as the classification of plant and animal life. However, Latin often had a secondary function. Knowledge of Latin required specialized education that was only available to members of the upper classes. Thus, by writing in Latin, priests (and others) could carry on all manner of discourses, while only publishing official knowledge in Italian.

In the end, the Cosimo's scientists leave without even glancing through Galileo's telescope. They promise to send Galileo's ideas to Clavius, the chief astronomer of the Papal college at Rome.

The tone of Galileo's discussion with the scientists leaves some doubt as to whether this promise is a lightly veiled threat.

SCENE 5

A plague has begun in Florence, and Cosimo sends a carriage to escort Galileo, Virginia, Mrs. Sarti, and Andrea to safety. Galileo makes sure that Virginia and Andrea get into the carriage, but ultimately decides that he can't go himself, as he has too much work to do. Sarti decides that she must stay with him, as well.

As with the age of Cosimo, the plague in Florence is a historical reality that Brecht turns to symbolic use. Little of consequence happens in scene five, except that a precedent is set for the speed at which a contagion can infect a population.

Later, Galileo can't find Mrs. Sarti and he goes out into the street looking for her. No one will talk to him, and they run away when he approaches. He discovers that Mrs. Sarti has abandoned the house and collapsed up the road with the plague. Soldiers come and barricade the street, and Galileo becomes terrified that he'll starve to death. An old woman agrees to help him. Shortly thereafter, Andrea appears. He's run away from the carriage, but the authorities won't let him see his mother, as she's too sick. He has, however, managed to sneak past the soldiers to get to Galileo.

The soldiers act to stop the spread of the plague in much the same way that the Church will act to stop the spread of Galileo's ideas. Here, Brecht foreshadows how ineffective that attempt will be. While the soldier's authority (and ability to kill) frightens some people like Galileo and the old woman, others, like Andrea, manage to navigate around the soldiers with complete impunity.

Andrea begins to cry, and Galileo comforts him with news of all he's discovered in the boy's absence. As they're discussing this, the soldiers return with bread for the quarantined citizens. Galileo asks them if they can bring him a book he needs. They laugh at this, but Andrea agrees to fetch it.

Much like his earlier conversation with Sagredo, Galileo asking for a book in the midst of a deadly plague makes him seem a bit insane. It shows him as a great man but also hints at the costs of that greatness.

SCENE 6

With the plague ended, Galileo arrives in Rome and finds himself amid a group of monks, religious scholars, and Vatican astronomers who are all heartily mocking his ideas amongst themselves. All are waiting for the decision of Clavius regarding Galileo's research. While most are enjoying the scene, a group of astronomers remarks bitterly at the fact that Clavius is using Galileo's telescope at all. They don't see what Clavius hopes to gain by looking through it. Galileo, listening in, lets a **stone** drop from his hand. When a scholar mentions that he's dropped something, Galileo replies that he has not dropped it, but rather let it rise.

Since Galileo's reception by the Roman astronomers matches the reception he had in Florence, it's somewhat surprising to learn that Clavius is seriously investigating Galileo's claims. Though this is, again, a historical reality, it nevertheless introduces some ambiguity into the Church as depicted in Brecht's play. Is the Church interested in the truth? Or is Clavius simply certain that, if Galileo's telescope fails to confirm what Aristotle has said, it must be a fraud?

A very old cardinal enters the room and verbally attacks Galileo, calling him an enemy of the human race and saying that he reminds the cardinal of a man that was just **burned** for heresy. He angrily begins reciting the lessons of Aristotle while pacing back and forth until he collapses. At the moment he falls, Clavius enters, declares that Galileo is correct in what he's said, and promptly leaves.

The very old cardinal's sudden entrance, bombastic speech, and fainting are all over the top—definite signs that Brecht is adding additional meaning to this moment. In fainting, the cardinal represents the Church itself, overwhelmed and unable to accept the evidence that Clavius confirms.

The Little Monk approaches Galileo in private and tells him that, before he left, Clavius said that the Church would have to once again figure out how the universe worked.

In this moment, the thematic battle between tradition and progress seems to have been won decisively.

SCENE 7

Galileo arrives at a ball being put on in his honor with Virginia and her date, Ludovico. They talk about how beautiful Virginia is, and how being Galileo's daughter got Virginia special treatment from her hair stylist. Galileo meets Barberini and another priest and they discuss his ideas. Barberini finds Galileo clever, and tells him about his own experience with astronomy, which he says "sticks to you like the itch."

Galileo feels finally vindicated in this moment. His work has been confirmed and his doubters overwhelmed. This leaves him with a few moments of fame to enjoy, but all he can really think about is astronomy. His conversation with Virginia and Ludovico feels awkward.

Barberini and Galileo banter back and forth, amicably trading quotes from the Bible. Barberini ends this part of the exchange by asking "can one go upon hot coals, and his feet not be **burned**?" The conversation then turns to Galileo's critique of Aristotle. Barberini suggests that the reason mathematics became increasingly unable to justify Aristotle's system was because God made the universe in a way mathematics was incapable of describing. Galileo denies this, saying that, had God made the world in such a way, he would have made men's minds to work in the same fashion. He adds (again) that he believes in man's ability to reason. Galileo suggests to Barberini that, rather than mathematics being wrong (as Barberini suggested), man's understanding of religion might be wrong instead.

The conversation between Galileo, Barberini, and the second priest is at once intense, intelligent, and witty. It's like a verbal sparring match. Barberini has a genuine affection for Galileo, which Galileo seems to return. Nevertheless, there's a certain tenseness about the exchange that suggests that the idea of persecution isn't as far in the past as it might have initially seemed. Galileo finds himself again defending his theories, which seems to leave him confused and defensive. Nevertheless, he manages to present himself eloquently to the two men.

The priest beside Barberini interjects, saying that it is the job of the Holy Church to interpret the Bible, not astrologists. That Church, he continues, has decided that Copernicus' view of the universe remains heretical. And while Galileo's research has been confirmed, and he may continue it—indeed, must continue it—he must nevertheless abandon his public embracing of Copernicus.

In this simple moment, the Church reverses the "win" that progress seemed to have made when Clavius first confirmed Galileo's observations. The Church denies Galileo's knowledge with the same poorly defended, tautological reasoning it used to establish the divinity of Aristotle. Barberini simply says that Copernicus remains wrong.

As Galileo is escorted from the stage by Barberini and his colleague, two scribes are observed taking notes on the conversation of the three men. Momentarily, the Cardinal Inquisitor comes to review the transcript. Seeing Virginia in the room, he talks with her at some length regarding her own religious practices, her relationship with her father (whom he calls a great man), and her understanding of astrology. He is pleased to hear that Virginia knows almost nothing of Galileo's theories and instead parrots back the teachings of the Church to him.

As before, Virginia's role in the story remains uncertain. She truly believes her father to be a great man, but she also believes him to be a deeply flawed one. Whether she would sell Galileo out to the Inquisition isn't obvious, but it certainly becomes understandable why Galileo has been so mindful about Virginia's knowledge of his work.

SCENE 8

The Little Monk comes to visit Galileo. He tells Galileo that, ever since Clavius declared Galileo's findings to be correct, he has struggled to reconcile them with his faith. The only option the Little Monk sees is to abandon astronomy altogether.

This scene is another moment (like the previous one with Sagredo) in which a sincere, intelligent man faces the real-life consequences of the struggle between tradition and progress.

The Little Monk doesn't doubt Galileo, he says, but he doubts that telling the truth about the universe will help anyone. He thinks it will only serve to confuse them and shake their faith. As a priest, he can't allow that. Galileo reminds the Little Monk that he's not just a priest; he is also a physicist. He hands the monk a bundle of manuscripts containing valuable scientific research, but reminds the monk that he's not supposed to read it. Yet, before the papers are even out of Galileo's hands, the Little Monk has become absorbed in them. Galileo likens the papers to an **apple** from the tree of knowledge from which the Little Monk has now taken a bite.

Galileo has already been associated with Satan because of the apple symbol Brecht employs throughout the play. While this is generally a playful association (because Galileo isn't actually the devil and he's not turning people towards evil), it's also a sincere one in many ways. The Little Monk has very real doubts about his faith, which were caused by Galileo. Yet, it is the Little Monk's faith that secures everything in his life: if he doesn't have it, he no longer has the access to food, shelter, and community, since all these are provided by the Church.

SCENE 9

Years have gone by, and though Galileo hasn't written anything further on the subject of Copernicus, he has amassed a group of pupils in the form of Federzoni, Andrea, and the Little Monk. The group is meeting when a former student enters. The student wishes to explain to Galileo why he recently attacked Copernicus in his book. Galileo tells the student that there's no need: he's perfectly in line with the Church's teachings. Galileo pulls his proving **stone** from his pocket, drops it to the ground, and tells the student that he is "quite within his rights" to say that the stone has just flown to the ceiling.

Weirdly, while Brecht works to associate Galileo's spreading of forbidden knowledge with the devil, Galileo also parallels another biblical character: Jesus. The way that Galileo amasses followers is reminiscent of the way that Jesus gained disciples. Later in the text, Galileo's "disciple" Andrea will go out to spread Galileo's message in much the same way that Jesus' disciple Paul did in forming the Catholic Church.

Meanwhile, Virginia and Mrs. Sarti discuss Virginia's engagement to Ludovico. Sarti feels that Virginia is taking their upcoming marriage too lightly and advises the girl not to let her father be a part of the ceremony. She also suggests that Virginia have her horoscope read by a "proper astronomer" at the University. Virginia replies that she already has. Their conversation is interrupted by the rector of Galileo's college, who has come to drop off a book. He refuses to interrupt Galileo, however, as any minute taken away from Italy's greatest man is a moment wasted.

Mrs. Sarti's sudden reappearance is something of a quirk here. Readers could be forgiven for thinking that she died during the plague, as it's suggested that she did and she's long been absent. Mrs. Sarti's suggestion that Virginia see a "proper astronomer" (when Virginia's father is the most famous astronomer in the world) to have her horoscope read serves as a bit of lighthearted humor.

The book is delivered to Federzoni, who can't read the title, as it's in Latin. Andrea reads it for him (it's a book about sunspots that doesn't interest any of them). The inscription reads "To the greatest living authority on physics, Galileo Galilei." The group discusses what sunspots might be, though Galileo remains silent throughout.

Brecht seems to keep Federzoni around as a reminder of Galileo's championing of the common man and distaste for Latinate texts. Brecht needs this foil, since Andrea has grown up to be a well-educated scientist, who can read Latin.

Andrea brings them back to their work at hand, using an experiment to test Aristotle's hypothesis that a broad flat piece of ice will float on water whereas an iron needle will sink. The Little Monk begins to present Aristotle's argument in Latin, but Galileo demands that he translate it into Italian for Federzoni's sake. Through the experiment, they discover that Aristotle was again wrong, and Federzoni laughs at the fact that the Church seemingly never bothered to test anything he said. The others laugh with him.

The experiment is presented in a way that's much easier to understand than some of the earlier conversations about celestial motion. Yet, at its heart, the experiment Galileo undertakes is almost *the same as his work with the moons of Jupiter. Before, Galileo sought to prove that Copernicus was right and Aristotle wrong. Now, forbidden to side with Copernicus, he simply seeks to prove Aristotle wrong.*

Ludovico arrives with news that the current Pope is dying. His suspected replacement is none other than Barberini. Convinced that Barberini will usher in a new age of reason for the Church, Galileo renews his research into the Earth orbiting the Sun.

Galileo's resumption of his old work is comically quick, with no change in set or props indicated. It's as though he had kept his old work waiting by his side all along.

Ludovico, however, is not as happy. Ludovico reminds Galileo that he signed a declaration saying he would never again promote Copernicus' ideas. Furthermore, Ludovico is distressed because his family is very well-respected and rich; his wife (Virginia) will have to sit by him in Church. Ludovico worries that his family will lose status if Galileo again takes up this research. Galileo is undeterred, and Ludovico resorts to threatening him. He says that his family—and others like them—will have considerable leverage with the new Pope, regardless of the Pope's love for science. Above all, the Pope must avoid the peasants questioning the established order of things, or they may begin to question him.

Ludovico's speech mimics that of the Procurator much earlier. Yet again, Galileo is expected to balance pedestrian concerns (like someone's reputation) with his great work uncovering the secrets of the universe. Galileo has already proven that he cares about eating, and will prove shortly that he has no desire to be persecuted, but preserving the reputation of others proves yet again to be of no concern to him. Certainly, he doesn't feel the threat Ludovico levels against him in the slightest.

Federzoni replies that this surely won't be a problem, since the peasants can't read the Latin in which Galileo will publish his findings. Galileo, however, says that he plans on publishing in simple Italian, since his findings should be available to those who work with their hands and know how things work. At this, Ludovico leaves, asking that someone else explain their breakup to Virginia. When Virginia finds out, she faints, and the others run to her. Galileo, however, remains locked in his research, saying that he simply has to know the truth of things.

Galileo hasn't mentioned his plan to publish in Italian up until this point. While it seems to surprise Federzoni and Ludovico, readers (with their privileged viewpoints from the outside looking in) have likely anticipated this decision. Galileo knows his knowledge will spread, and he wants to make sure it spreads as widely and easily as possible.

SCENE 10

A decade passes and Galileo's fame spreads throughout Italy, such that he's even sung about by ballad singers in circuses. One particular song is sung in full. It paints Galileo as a "bible-buster" who has overturned order in all corners of life, from the relationship between husband and wife, to the way transactions happen at the marketplace.

This minstrel act breaks up the action of the play in a very "Brechtian" way. It's meant to force viewers (and readers) to stop aligning themselves with Galileo (as they naturally do) and rather see him from the outside. In turn, they should think carefully about his impact on the everyday world.

SCENE 11

Galileo has been summoned to the Medici palace for a meeting with Cosimo. He and Virginia await the Grand Duke in his antechamber. Galileo sees an old acquaintance, but the man refuses to speak to him. Another acquaintance, a manufacturer, tells Galileo that there are anti-Christian pamphlets circulating, and that the Church blames Galileo for them. The man nevertheless supports Galileo, he says. As a manufacturer, he recognizes that Galileo's questioning of the status quo will help to usher in technological advancements for Italy, which is lagging behind the rest of Europe.

Neither Brecht's character nor the real Galileo ever intended for the "virus" of new ideas to spawn anti-Christian literature. Certainly, Galileo never wrote such tracts himself. Nevertheless, there is some truth to the rumors that Galileo is responsible for the pamphlets (as well as to Ludovico's earlier assertion that Galileo would end up leading people to question the Pope). The idea that the Church could be wrong spread alongside his ideas about celestial motion.

Eventually Cosimo comes out, but only addresses Galileo in passing. Galileo offers the Grand Duke a book, but Cosimo ignores it, instead asking Galileo how his eyes are. Galileo responds that they're not very good, and Cosimo says he was afraid of that. It shows that Galileo has been spending far too much time at his telescope. A court official appears on Cosimo's heels to tell Galileo that a coach is waiting outside to transport him to the Inquisition in Rome.

Cosimo seems embarrassed to even speak with Galileo and he obviously wants to get away from him as quickly as possible. It's not clear if this is because he's an older man now and actually feels revulsion towards Galileo's heretical views. It might simply be that he remains under the guidance of the Church and hasn't decided Galileo's fate yet.

SCENE 12

Barberini (now Pope Urban VIII) is arguing with an Inquisitor. The problem with Galileo, the Inquisitor tells him, is not so much what he says about the Earth and the Sun. Rather, it's that he writes in Italian, to common people, and sets an untoward example of questioning authority. The effects of this, the Inquisitor continues, can be seen throughout Italy, where men, women, and children are using their reason to question anything they please. Sea captains throughout the country are demanding Galileo's star charts to aid in their navigation. Yet even these charts (which the Church feels it must provide to the captains, as profits are at stake) are heretical.

As Pope, Barberini is (in theory) at the head of the Catholic religion and responsible for its decision making. This should position him as a great man in his own right. Yet, through his interaction with the Inquisitor, it becomes clear that much of Barberini's decision making process is highly politicized. As a private citizen, with none of the Pope's power or authority, such concerns should weigh far more heavily on Galileo (a great man), but he cares about them far less.

Barberini defends Galileo, while conceding that he ought not to have written in Italian. He reminds the Inquisitor that Galileo is the greatest physicist of their age, and to denounce him would be to show the rest of the world that the Church had denounced science. In the end, Barberini agrees to allow the Inquisition to show Galileo tools of torture (but not to use them) in order to assure his compliance.

Remember Galileo's earlier conversation with the merchant, where it's revealed that the Church has held back scientific discovery in its territories, which has led to it falling behind the rest of Europe technologically. Both as a scientist and a political leader, Barberini must be concerned with this.

SCENE 13

In Rome, Virginia, Federzoni, the Little Monk, and Andrea await the outcome of Galileo's questioning by the Inquisition. All of them are confident that Galileo will not recant his position, but they fear that this will mean his death. The Little Monk wonders if they'll allow him to keep his proving **stone**. Virginia prays that Galileo will recant. It is his twenty-fourth day in prison.

Interestingly, unlike Jesus, none of Galileo's disciples seem to be in danger of persecution themselves. No doubt this makes their confidence in him to not recant (and indeed their own desire for him to not recant) much easier.

Moments later an official appears to tell them that Galileo is expected to recant. Shortly thereafter, he does, and his statement is read to the public. His pupils rebel, and when Galileo appears, Andrea won't so much as look at him.

As with his stealing of the telescope early in the play, Galileo's decision to recant seems to call his greatness into question.

SCENE 14

Galileo is an old man and Virginia about forty years old. He has been under house arrest by the Inquisition since the day of his trial, and is no longer allowed to research or write without his words being first approved by the monk who guards him. His writing, it seems, is entirely dictated to Virginia.

Virginia seems finally to have her wish. Her father has recanted his greatness for a more traditional life and avoided persecution in so doing. Yet, Galileo seems to have kept Virginia in the dark about his continued work.

A stranger has gifted the family a pair of fat geese, and Galileo requests that they be cooked with **apples**. When Virginia presents them to Galileo, however, he can't see them, because his eyes have gotten so bad.

It's never made clear who has gifted these geese to Galileo and Virginia. Probably they come from Andrea, but Brecht uses them mainly to reintroduce the apple symbol.

While Galileo is dictating a response to a clerical request for his opinion, Andrea (now middle-aged himself) appears at the door. He is leaving for Holland to conduct research, and his new employers have asked him to check on Galileo to see if he's well. Galileo mentions that he's heard some nations, not under the Church's control, still pursue his research. Andrea chastises him, saying that when he recanted it set the entire world back. Even Descartes, he says, stopped his research on the nature of light. Galileo then asks about his pupils, whom he says he led into error. Federzoni resumed his career as a lens grinder. The Little Monk returned to the Church. And Andrea is forced to go to Holland, where he can be free to research.

As with Bruno earlier, dropping Descartes' name here reminds readers that Galileo (as a great man who bucks tradition in the name of progress) is part of a much larger conversation. His failure to take up his part of that conversation endangers it and weakens it. Indeed, who knows if another Galileo would ever come along to replace what was lost when Galileo recanted? At any rate, infectious as his message was, the recantation seems to have cured it. His pupils, those most likely to pick up his work, have all instead scattered.

When Andrea goes to leave after only a short talk, Galileo asks him why he bothered to come in the first place. Galileo's repentance has been going well, though he has occasional lapses into his former self. As an example, he mentions in an offhand way that he's managed to finish his great work, *The Discourses*, that he began so long ago with his pupils.

Despite all the dramatic, over-the-top moments in Life of Galileo, such as the fainting old cardinal, there is little in the way of drama for this massively important revelation from Galileo. In fact, it comes almost as a second thought, catching Andrea completely off guard.

Andrea is amazed by this news and flabbergasted that this great work, which the entire world is clamoring for, is under the supervision of a monk in a small house in Florence. Galileo gives Andrea his transcript, so that he can take it with him to Holland and have it published. Andrea realizes that Galileo recanted because his work wasn't done. He apologizes to his former mentor, who calls him a "brother in science." Andrea departs in wonder at Galileo's accomplishment.

In the end, house arrest is almost exactly what Galileo needed to complete his work. The conditions of his confinement make it impossible for him to be persecuted further while providing for him materially. And while he still must complete mundane tasks, doing so now improves rather than degrades the reputations of those above him. The cost (of his eyesight) was admittedly high, however.

SCENE 15

Andrea makes it to the border of Italy. There's a moment of trouble with the guards there, who must search his belongings. However, when Andrea attests that they're mostly books, the guards agree it's too much trouble to go through them. There can't be anything dangerous in books, they decide, as they let Andrea pass.

The play's final moment comes with a touch of tongue-in-cheek irony. Furthermore, it can end with such little closure because the text itself is largely biographical. The audience knows that Galileo's word got out and his "infection" spread to all corners of the globe.

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