# THE PUBLIC INTELLECTUAL AND MYTH OF HEROIC RESISTANCE: A CRITIQUE OF BRECHT'S POST-ATOMIC BOMB VERSION OF *GALILEO*

by

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#### Abstract

This thesis focuses on German playwright Bertolt Brecht's second version of his play *Galileo*, which he worked on in collaboration with actor Charles Laughton during the fallout of the United States' atomic bombings. Specifically, this thesis focuses on the playwright's notion of the public intellectual in the play as an individual who should sacrifice everything to thwart injustices and acts of violence within society. This thesis argues that, while individuals comprise systems and institutions, those structural forms of state power also create and enforce limitations upon the personal agency of people who challenge their authority. By addressing these limits and the violence of repressive institutions or systems, this thesis criticizes the expectation of "heroic" resistance as a form of romanticized overdetermination of a scholar's agency.

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#### Introduction

The invention of the atomic bomb, which effectively ended World War II, irreversibly altered perceptions about science. On those fateful days in August 1945, an estimated 115,000 civilians tragically lost their lives in a single, horrifying flash of history.<sup>1</sup> At least an additional 100,000 people were left seriously injured in the wake of the United States' attacks on Hiroshima and Nagasaki (Bernstein 135). The weapon's unfathomable caliber of destruction subsequently launched an international debate regarding the dangers of nuclear warfare, and led to a subgenre that John T. Dorsey terms "atomic bomb literature." As a general characteristic noted by Dorsey, atomic bomb literature foregrounds the relationship between science and society, urging greater responsibility for scientists.<sup>2</sup> During this literary movement, German playwright Bertolt Brecht collaborated with actor Charles Laughton to revise his play *Leben des Galilei*, renamed simply *Galileo*, between 1944 and 1947 in the midst of the atrocities of the atomic bomb.

The original version of the play, first written in 1938, dramatized the well-known clash between Galileo Galilei's cosmological theses and the Catholic Church's doctrine, but the advent of the atomic bomb prompted the playwright to reexamine his original version and produce a new one which would engage with the current historical moment. As Brecht says in "Unvarnished Picture of a New Age," his preamble to the second version, "Overnight the biography of the founder of the new system of physics read differently" (122). Not only does Galileo contribute to science that leads to the invention of the atomic bomb, but he also denies his theories under the Holy Inquisition's interrogation, instead of standing up to the authorities. After this defeat, the play concludes with Andrea smuggling the *Discorsi*, a book which contains

<sup>&</sup>lt;sup>1</sup> Some estimates of the death toll are closer to 250,000 or more (Berstein 135).

<sup>&</sup>lt;sup>2</sup> John T. Dorsey explores this literary trend, highlighting numerous examples, such as C.P. Snow's *The New Men*, Pearl Buck's *Command the Morning*, Nagai Takashi's *The Bells of Nagasaki*, and of course, Bertolt Brecht's *Galileo* (Dorsey 277-290).

all of Galileo's revolutionary new theories, out of Italy. In the original version, Andrea hoodwinks the guards and the group of boys with whom he interacts realize Old Marina is not actually a witch once Andrea tells them the truth, that a box they think the woman cursed belongs to him. The children believe him, and he confirms that society is, indeed, on the frontier of an age of reason with boundless possibilities for both scientific and social progress, which might lead to the invention of a flying broom—who knows! In the second version, Andrea holds one of the boys up to the woman's window to see that a shadow in her house belongs to a soup ladle, not a flying broom. However, the boy denies the truth and rejoins the others in calling the woman a witch, signifying that an age of reason does not truly begin, all because Galileo did not persist in his effort against the Church. The playwright underscores the grim reality human civilization faced in the twentieth century, specifically a crisis of faith in civilization and the progress of society. In a period of rapid scientific development, why could these advancements result in such horrific atrocities as the human wreckage of the atomic bomb? Still, in the twentyfirst century, during an increasingly precarious nuclear age, we often find ourselves contemplating this question.

The play's dilemma between scientific advancement and catastrophe leads many critics to condemn Galileo for ultimately failing within his social role as a scientist. According to these readings, since Galileo submits to the ruling class of his time and practices science mainly out of self-interest, he allows the Catholic Church to continue exploiting scientific discoveries and oppressing people in society. For example, Jacqueline Merriam-Paskow states, "[Galileo] denies the awaiting populace living under the shadow of the Inquisition the momentously liberating political and social implications of his discovery" (42). M.A. Cohen briefly notes the Marxist influence on Brecht's representation of the seventeenth-century physicist; he argues that Brecht portrays Galileo as a "forerunner of modern science and social revolutions," who chiefly desires to "spread the spirit of doubt," because he believes this subversive attitude will lead other people in his society to alter the existing social order (88). Cohen interprets the historical moment in the play as "one in which reason might have begun to control human affairs," instead of a few powerful individuals; he refers to Galileo's recantation of his scientific discoveries toward the end of the play, therefore, as the "ultimate betrayal of a new age" on the grounds that the scientist turns his back on all the promises of an age of reason, allowing the ruling system to continue exploiting the lower classes (83). Brecht himself openly expressed his unforgiving view of his title character, whose decision to concede under the Catholic Church's pressures thwarted the social responsibility of the intellectual in the playwright's perspective: "The fact is that Galileo enriched astronomy and physics by simultaneously robbing these sciences of a greater part of their social importance" (Journals 123). Günter Rohrmoser further expands upon the repercussions of Galileo's socially negligent actions, summarily purporting that "[m]odern science, in itself an instrument of progress, transforms itself into a force for oppression in the hands of the rulers to whom Galileo has delivered himself" (65-66). Assertions such as these, however, appear to rely on the assumption that when individuals pursue scientific discoveries with a socially conscientiousness mindset, those developments will inevitably benefit everyone in society. The problem with this premise is that even if an individual practices science with the altruistic intention of helping everyone, that does not mean an authority above them cannot exercise the power to utilize that invention or knowledge in a destructive manner, with or without the scientist's permission. The responsibility of controlling scientific advancements should not and cannot possibly rest entirely on the individual scientist.

While these harsh criticisms are appropriate in acknowledging the class struggle in the play as well as the responsibility of the intellectual, they do not fully examine the position of Galileo within the violent system that also targets him. Without this consideration, we can easily overlook the oppressive nature of the authority that operated against the scientists who constructed the atomic bomb as well. This risks misplacing fault solely on the scientists, instead of also holding the political systems under which they followed orders accountable. Moreover, this interpretation oversimplifies the impossibility of Galileo's situation as he confronts the oppressive system operating against him. It is important to foreground the underlying violence of the institution in the play, as this raises an intriguing question about our capacity to prevent injustices carried out on an institutional level in society. How far can we really ask a person to go to stop acts of violence? And how far can one person really go? Rather than simply vilifying or exonerating the character of Galileo, I wish to propose a new reading of the play. I will argue that Brecht unwittingly suggests the extensive limits of personal agency when confronting structural forms of power, which undercuts romanticized societal expectations of "heroic" resistance, even those which the playwright himself endorses.

#### Brecht's Marxist Aesthetic, Epic Theatre, and Political Views

Before analyzing Brecht's work, we first need to understand the sociopolitical factors that informed his worldview and inspired his revolutionary practice of epic theatre. During his sixyear exile from Germany, life in the United States did not prove very successful for the brilliant playwright. This was mainly due to Brecht's resistance toward more popular theatre styles of the time, his unwavering political opinions, which he dedicated his entire career to publicizing, and his obstinate personality. As author James K. Lyon explains in his biographical novel *Bertolt Brecht in America*, "[a]lmost without exception, those who perceived Brecht to be dictatorial experienced these traits in connection with his political ideologies or his theatrical ideas" (89). Specifically, Brecht implemented a didactic model, based on the "Theatre of Enlightenment," which aims to illuminate social power structures and emphatically call attention to the class struggle as well as the "irrationality" of oppressive power dynamics (Fehervary 100). The Theatre of Enlightenment model also incorporates a concept called "the great truth," which Brecht described in his own words:

> The great truth of our time is that our continent is giving way to barbarism because private ownership of the means of production is being maintained by violence. Merely to recognize this truth is not sufficient, but should it not be recognized, no other truth of importance can be discovered. Of what use is it to write something courageous which shows that the condition into which we are falling is barbarous (which is true) if it is not clear why we are falling into this condition? (qtd. in Fehervary 80).

In discussing the state of Europe as falling into "barbarism," Brecht does not imply "civilization" as a necessary counterpart, a binary which Walter Benjamin cautions us to avoid. As Benjamin wisely reminds us, "There is no document of civilization which is not at the same time a document of barbarism" (256). This problematic binary allows certain societies to vilify or subordinate cultures that are different from their own.<sup>3</sup> Rather, Brecht insinuates that Europe has not yet reached a "civilized" time at all, and he makes an excellent point about the violent means of capitalism which oppress the proletariat; capitalist production is not progress for everyone in society as Marx would agree. The playwright does not subscribe to a conception of history in

<sup>&</sup>lt;sup>3</sup> For example, consider early European settlers' perception, and subsequent cruel treatment, of indigenous peoples, colonialist invasions of Africa during the nineteenth and early twentieth century, or the xenophobic views of Eastern cultures which persist in the Western world.

which events of the twentieth century appear as a singular, horrific exception to an otherwise "civilized" time in European culture. On the contrary, in acknowledging the violence within his society, Brecht correctly implies that violence is not the opposite of progress in capitalist society, but the crux of it. As Benjamin and Brecht both seem to understand, violence continues to occur because we ignore and enforce it in the name of so-called "progress." It is crucial to remember this murky territory as we look at the behavior of Galileo, a victim of violence in a society seemingly on the brink of "enlightenment" or an age of reason.

In order to force audiences to engage with issues of bourgeois society, Brecht implemented a style called epic theatre, which attempts to shock viewers and alienate them from the story so they can objectively critique the current social situation the narrative presents (Kellner 31-35). Unlike dramatic styles of theatre, such as the Aristotelian model, epic theatre does not promote empathy toward characters, because empathy allows the audience to passively view the social situations in the play as unchangeable (Brecht, *Theatre* 137-137). Epic theatre, according to Brecht, strives to depict the world "not only for the contemplative human being but also for the active human being, ie the world is conceived of as alterable" (Journals 110). In other words, when an audience can perceive the needlessness of a character's suffering and the processes that lead to it, they can then go out into the world to alter this reality for themselves and others. On a world stage that had seemingly reached peaks in scientific development and "civilization," Brecht tirelessly spotlighted the darker underbelly of a society ruled by the upper classes in a bourgeois society or domineering, myopic political systems that control scientific advancements without considering the long-term consequences for people in the lower classes of society. In typical Brechtian (and Marxist) fashion, however, the playwright tends to privilege

the suffering of the collective proletariat and his political aims over the repression of the individual in his play.<sup>4</sup>

# Synopsis of *Galileo* and Brecht's Artistic Goals

With the playwright's Marxist views and deeply political style of theatre in mind, let us explore what Brecht aims to accomplish with his art in *Galileo*. The story focuses on the real historical figure of Galileo Galilei, a revolutionary scientific thinker in the seventeenth century during the Roman Catholic Inquisition. Specifically, the drama revolves around the scientist's crucial discovery of the heliocentric model of the universe, which subverts the Church's religious doctrine of the time. At the beginning of the play, we gather that Galileo pursues science in different capacities: first, as a tutor for young people who pay him for private lessons on astronomy; second, as an employed professor of mathematics who offers scientific inventions to the Great Arsenal of Venice for merchants and manufacturers to sell; and third, as an independent researcher who desperately craves to satisfy his own curiosities about the universe. Within this last capacity, Galileo's pursuit of the 'truth' about the heliocentric model challenges orthodox beliefs, placing him at odds with the Catholic Church after he moves to Florence. While the Church reigns supreme, the vast majority of people in Galileo's society, including him, struggle to earn a living wage. By contrast, the Church officials and members of the upper classes lead comfortable lives with an excess of wealth. The Church's rigorous enforcement of the social order, however, ensures that none dare speak out against this imbalance of power. The ghost-like presence of Giordano Bruno, another real historical figure whom the Church executed for supporting the same theory Galileo proves, hovers in the play imbuing the ever-present fear

<sup>&</sup>lt;sup>4</sup> In his book *Intellectuals*, Paul Johnson mentions Brecht's tendency in real life, as well as his fiction, to view people or characters as less important than his "ideas" (196).

of the Holy Inquisition that firmly holds society at bay. Despite warnings from Church officials, Galileo daringly publishes his theory in the vernacular, a pivotal decision which makes his teachings widely accessible for people in the revolutionary lower classes of society who could not otherwise read Latin, the language of the classically educated upper classes. The scientist's publication subsequently raises all sorts of provocative, dangerous questions about the established social order and truth. Some townspeople deem him a "Bible-killer," and the Holy Inquisition orders his arrest for undermining the Catholic Church's authority.

It is precisely Galileo's position as an enemy of the Church that reveals the limits of personal agency the scientist experiences. The character's conflict with the Church culminates in his recantation of heliocentrism out of fear for his life when an Inquisitor menacingly shows him a room filled with instruments of torture, a scene which the playwright tellingly chooses not to explicitly show us. By glossing over the extreme violence in this moment, Brecht turns our attention away from the individual under repression, figuratively shutting us out from the character's personal suffering. The Church then sentences Galileo to house arrest for the rest of his life, but he cannot resist secretly continuing his scientific work, and eventually completes his Discorsi. Although Galileo finishes this significant accomplishment, he dwells on his misdeeds as a scientist whose contributions to the scientific field and cowardly actions inexcusably failed to benefit the people in society suffering under the Church's authority. However, the character's dedication to science does not come without a personal sacrifice in the play either; Galileo is nearly blind toward the end of his life because of constantly exposing his eyes to the sunspots he studies. We might view the character's blindness as a metaphor for his blindness toward the repercussions of his socially negligent pursuit of science, but this interpretation once again overlooks the suffering the character endures. In the final act, Galileo's friend and student,

Andrea, smuggles the *Discorsi* out of Italy in the hope of spreading these new ideas around the world, but Brecht leaves us pondering the inevitable misuses of science by those in power, whose authority Galileo inadvertently solidifies by recanting, which will continue to oppress people in new ways.

The resolution of the play reflects the playwright's conception of history which acknowledges that "progress" in capitalist society occurs only at the expense of the proletariat. In Galileo, Brecht harkens back to an actual moment in history before the age that Europeans often regard as the period of "Enlightenment." Brecht's Marxist perspective helps explain his frustration with Galileo as an intellectual. According to Brecht, the play's Galileo fails not only when he recants, but also when he practices science under house arrest later in life; the playwright states, "[Galileo's] productiveness destroys him," and continues, "Galileo destroyed not only himself as a person, but also the most valuable part of his scientific work. The church (ie the authorities) defended the biblical doctrine simply in order to maintain itself, its authority, its capacity to oppress and exploit" (Journals 308). The crucial aspect of Galileo's scientific work, for Brecht, is its ability to challenge the Catholic Church's assumed authority which allows them to remain at the top of society. Rather than galvanizing a social movement, the character's recantation of his unorthodox theory undermines this revolutionary attitude and enables the Church to reinforce its position of power. Moreover, since Galileo continues to pursue science despite the Church's consolidated rule, the playwright implicates the character in furthering scientific "progress" which will benefit the upper classes, but inversely prove detrimental to the rest of society. Brecht utilizes the real historical moment in the play to flip the capitalist notion of "progress" completely on its head. In the original version, Galileo expresses the belief that his society is indeed on the brink of a "new time" (Brecht, Life 6). The second

version of the play, on the other hand, urges a new perception of history; Galileo skeptically claims from the onset of the story, "A new age *was* coming" (Brecht, *Galileo* 48, my emphasis), and later says, "This age of ours turned out to be a whore, spattered with blood" (124). I agree with Cohen's assertion that Brecht seems less concerned with historical accuracy than reflecting issues within modern society, mainly the violence of capitalism and the responsibility of the intellectual: "the point is more for the present than about the past. Confronted by the drama in performance, we meet Galileo's dilemmas as our own" (86). In a Sartrean view of committed literature, which seeks to create social change, Brecht is giving voice to "freedoms which are swallowed up, masked, and unavailable" to the lower classes in his own twentieth-century society, pleading his fellow citizens to recognize the oppressive nature of the system in which they live and play an active role in reshaping the world (Sartre 67).

The issue with Brecht's vision of the play, and the interpretation many critics bolster, is that the playwright places the task of emancipating people in society squarely on Galileo's shoulders. Brecht unwittingly invites a discussion about accountability of oppressive systems, however, when the protagonist states after recanting, "Unhappy is the land that needs a hero" (Brecht, *Galileo* 115). Although the playwright insists that Galileo should act against the Church, even if that entails sacrificing his life, this simple utterance momentarily shifts the focus back onto the authorities that oppress him. We must then ask if Galileo martyring himself would have truly prevented the Church's future misuses of science.

# **Theoretical Background**

The social and political theories of Karl Marx lay the groundwork for a conversation about Brecht's goal of social change that he projects onto Galileo in the play. At the base of Marx's influential theories about social relations and change lies his concept called "historical materialism." Historical materialism is Marx's approach to understanding the course of history as a series of developments in the 'means of production' (e.g. machines, factories, and the organized labor force). According to Marx, this constant revolutionizing of the material means and modes of production shapes 'relations of production' between the private owners of that production (capitalists) and the workers (proletariat) as well as the "whole relations of society" ("Communist Manifesto" 659). Through the collective labor-power of the workers, the capitalist places the products of that labor on the market for consumption. In the act of exchange, these products adopt a social nature; people begin to assign the products of human labor intrinsic value, measurable by the product's relation to other things, instead of recognizing the labor of individual workers as a mark of value, a phenomenon which Marx terms the 'fetishism' of commodities (Capital 165). To gain an economic advantage, furthermore, the capitalist will increase their labor-power in highly exploitative ways to compete with others in the market and increase their profit.<sup>5</sup> Marx predicts that this widening gulf between the wealth of the bourgeoisie and the poor conditions of the proletariat will inevitably lead to a social revolution and the collapse of Capitalism. In A Contribution to the Critique of Political Economy, Marx alludes to the "legal, political, religious, aesthetic or philosophie--in short ideological forms in which men become conscious of this conflict and fight it out," but does not sufficiently elaborate on the exact way in which the proletariat will gain this "class consciousness" required to change the social order (12).

Walter Benjamin expands upon Marx's revolutionary claims and concept of historical materialism, addressing the vital moment when the oppressed or revolutionary class becomes aware of their ability to take action. Whereas the historicist "gives the 'eternal' image of the

<sup>&</sup>lt;sup>5</sup> Marx specifically addresses the practices of child employment, prolongation of the work day, and the intensification of labor (*Capital* 517-542).

past," says Benjamin, "the [historical materialist] recognizes the sign of a Messianic cessation of happening, or...a revolutionary chance in the fight for the oppressed past. He takes cognizance of it in order to blast a specific era out of the homogeneous course of history" (263). For Benjamin as with Brecht, "the attempt must be made anew," in every epoch of history, "to wrest tradition away from a conformism that is about to overpower it" (255). On whom does the task of this 'Messianic' intervention in history fall, though? Benjamin concurs with Marx that the oppressed class as a whole will fulfil this prophecy, mainly out of hatred and the "spirit of sacrifice" (260).

Other political and philosophical theorists discuss the influence of the intellectual in this struggle against violence and oppressive institutions. In his 1993 Reith Lectures, Edward Said speaks about the invaluable role of the public intellectual in every revolutionary or counterrevolutionary movement in modern history. He defines a 'public intellectual' as more than a mere profession and rather as "an individual endowed with a faculty for representing, embodying, articulating a message, a view, an attitude, philosophy or opinion to, as well as for, the public," whose specific role in society is to "publicly raise embarrassing questions, to confront orthodoxy and dogma" (11). Said argues that the intellectual, driven by their raison *d'être*, will courageously protest infringements upon the standards of freedom and justice which every person should rightfully demand from governing bodies or nations (12). As we see in the play, Brecht clearly views Galileo as a public intellectual who embodies the revolutionary attitude of people in his society and occupies a position from which he can convey this message to the public. As a prominent scientific thinker, Galileo emboldens people to "teach new things," as one of his supporters, an iron founder and member of the lower working class named Matti, tells him (Brecht, Galileo 105). Whether it be unorthodox theories about science or ideas about reforming social relations, the questions Galileo raises confront the legitimacy of the Catholic

Church's rule. Said's definition of the public intellectual, however, adds more nuance to Brecht's treatment of the character as a mere figurehead of a movement who should lay down his life for the cause; he claims that the public intellectual always faces an inherent personal risk in speaking out in public about controversial issues (13). When examining Galileo's position and responsibility as an intellectual, this is a factor that we must consider.

Both Brecht and Said's conception of the public intellectual taps into an earlier Kantian notion of the 'public use' of reason which the philosopher examines as an instrumental tool for the betterment of society. Although Kant's theory of enlightenment does not support revolutions as an effective method of social change, it attempts to explain how the use of reason might reform society.<sup>6</sup> According to Kant, people live in a state of "self-incurred minority;" the philosopher defines minority as the "inability to use one's understanding without direction from another," and says that this social condition is self-incurred when "its cause lies not in lack of understanding but in lack of resolution and courage to use it without direction" (600). In other words, Kant maintains that people possess the ability to think for themselves, but oftentimes depend upon the instructions of others who will think for them instead: "It is so comfortable to be immature! If I have a book that understands for me, a spiritual advisor who has a conscience for me, a doctor who decides upon a regimen for me, and so forth, I need not trouble myself at all. I need not think, if only I can pay" (600). It is not difficult to see how this idea of "selfincurred" minority might allow people to view those in the oppressed lower classes as "complacent" for their conditions in life. Within the context of Brecht's and Benjamin's conceptions of history, Kant's theory of enlightenment also lies at the heart of the binary between "civilization" and "barbarism" which allows Europe to claim it has reached an

<sup>&</sup>lt;sup>6</sup> Marx clearly envisions this reshaping of society as the replacement of Capitalism with the Communist mode of production.

enlightened age, while regarding other cultures as "unenlightened" or "barbarous." I recognize that Kant's hesitance toward revolutionary action and sole emphasis on improving the mindset of people in society does not necessarily fit with Brecht's or Marx's theories and practice of active social resistance. The philosopher plainly argues that "a revolution may well bring about the falling off of personal despotism and of avaricious or tyrannical oppression, but never a true reform in one's way of thinking" (601). But perhaps, these theories can inform each other in a way which elucidates how the use of independent reason can help confront the injustices or forms of oppression which lie at the fore of Brecht's work.

I agree with Kant's notion of enlightenment in the sense that it is a gradual, constant reevaluation of assumed truths or "precepts and formulas" that subdue people in society and "harness the great unthinking masses" (600-601). In this regard, the philosopher's theories are not totally incompatible with Brecht's goal of implementing his art to incite social change. For society to truly move toward an enlightened age, wherein people can think freely for themselves, Kant asserts that everyone must be allowed to use their reason publicly in all matters within the role that he terms a 'scholar.' In addressing their community as a whole, every person should raise the uncomfortable, contentious questions which combat the mistakes or abuses of those in power. This is the failure for which Brecht faults Galileo in the play. If individuals can perform this fundamental role, according to Kant, people will emerge from a state of minority. However, the philosopher notes the restrictions on this freedom in an immature society which do not allow people to use their reason freely in public. As we observe in the play, the Catholic Church does not allow Galileo to speak out against its abuses of power in several insidious, sometimes covert ways. Through this theoretical and philosophical lens, we can view Galileo as a public

intellectual, but one in an extremely repressive system that primarily seeks to serve its own interests and perpetuate its authority by crushing any form of public opposition.

#### Critical Analysis of Galileo

Considering the aftermath of the atomic bomb, especially in the United States, Brecht's Galileo echoes the anti-nuclear sentiments and historical conditions after World War II. Speaking to his friend and pupil, Andrea, at the beginning of the play, Galileo voices an antiestablishment feeling shared by anti-nuclear protesters: "The millennium of faith is ended, said I, this is the millennium of doubt. And we are pulling out of that contraption. The sayings of the wise men won't wash any more. Everybody, at last, is getting nosy" (Brecht, Galileo 49). The notion of escaping a "contraption" implies a struggle within Galileo's society between the public and the ruling class or system of thought. The Church's upheld religious doctrine, based on the "sayings of wise men," restricts the public's inquiries about scientific pursuits. Galileo implicates members of the Church and upper classes of society, for example, in allowing humankind to continue misguidedly thinking that "the sun and all the host of stars revolve around [them]" for two thousand years (48). In contrast, the character expresses his utmost confidence in the everyday person, "the sailor, carpenter, and so on," who does not fear "using their eyes," to harness their healthy dose of doubt so they can realize and rectify the foolish errors of the Church (69). This group of 'everyday people,' in a way, represents the social class that Marx calls the 'proletariat,' the revolutionary class which he predicts will eventually overthrow the bourgeoisie. In that same vein, we understand the greater, implicit threat this doubt poses to the Catholic Church's assumed authority. As Galileo considers traveling to Florence to share his revolutionary scientific discoveries with Prince De'Medici, his friend Sagredo implores, "How can people in power leave a man at large who tells the truth, even if it be the truth about the

distant stars?" (65). Not only does Galileo speak the truth about science, but Sagredo recognizes that his friend could implement his doubt to "speak truth to power," as Said would say, questioning the uncontested dogma and authority of those in power. As a public intellectual, Galileo articulates the opposition of the lower classes to the ruling system's orthodox beliefs and authority.

Dario Fazzi helps explain the significance of this public doubt for an audience in the late twentieth century. After World War II, the Truman Administration supported the "widely accepted doctrine" of "nuclear deterrence," the strategy that the United States needed to continue developing the most powerful nuclear weapons in the world to prevent other countries from detonating their own (Fazzi 699). Not to mention, the nuclear arms race aimed to combat communism, playing into the mounting fear of communism and communists, which eventually culminated in the Cold War. This advancement of nuclear technology elicited many concerns from the public and those within the scientific community. Some people claimed that nuclear weapons ensured greater dangers, rather than any sense of international safety. During this conversation about nuclear energy, the AEC (US Atomic Energy Commission) General Advisory Committee declared that the invention of a "super-bomb" would threaten the future of the entire human race. Truman ignored these warnings, however, deeming any opposition "foolhardy altruism," but that did not dissuade the public or scientific community from questioning the irresponsible use of nuclear power due to the Administration's dogmatic objectives (Fazzi 702). According to Fazzi, Eleanor Roosevelt spearheaded a national campaign about the implications of nuclear warfare after World War II, and endeavored to merge nuclear criticism within the scientific community with the wisdom of the general public to challenge the Administration. Eleanor Roosevelt and the scientific community's efforts to stoke the public's doubt and prevent

the Administration from misusing science closely parallels Galileo's belief in the everyday person to oppose the Catholic Church's claims about science in the play. For example, Galileo asks the group of scholars he meets in Florence why they "defend shaken teachings," then tells them that people in the lower classes will eventually depose these faulty beliefs and humiliate members of the upper class: "The question is whether these gentlemen here want to be found out as fools by men who might not have had the advantages of a classical education...I tell you that our dockyards are stirring with the same high curiosity which was the true glory of ancient Greece" (Brecht, *Galileo* 69). The future of science and society, for Galileo, lies not with the narrow-minded members of the upper class, but with these 'everyday people' or the proletariat. Like his twentieth-century counterparts, Galileo appropriately identifies the moment in history as a time for society to challenge the ruling class or institutions.

Perhaps more interestingly, the United States' earliest attempt to grant the public control over nuclear energy after World War II through the Atomic Energy Commission (AEC) ultimately failed in many regards, an outcome which rings true in the play as well. The AEC, despite its initial goal to "promote world peace" and "improve the public welfare," quickly morphed into a national defense operation (Buck 1). In the first seven years after its conception, the civilian-controlled Commission began contracting private corporations to manage nuclear power plants and laboratories, a practice the Government previously reserved for national emergencies in times of war (Buck 2-3). Only after the Commission obtained an adequate arsenal of uranium to suit "military needs" did it finally start focusing on the peaceful aims of nuclear energy which it originally set out to pursue (Buck 6). The final scene of the play similarly undercuts the idea that the public can prevent the exploitation of science. Before smuggling Galileo's *Discorsi* out of Italy, Andrea encounters a group of boys who insist that a

woman in the town called 'old Marina' is a witch who flies around on a broomstick. In the original version, Andrea simply tells the boys they "should learn to use [their] eyes," and that a machine which would permit a person to fly on a stick does not yet exist (Brecht, Life 109). The original version of the play ends on a fairly optimistic note, reaffirming the belief in the everyday person to utilize their doubt to challenge misconceptions and the Church. In the second version, by contrast, Andrea provides the boys with concrete evidence which disproves their accusations about the woman. Holding one of the boys up to the woman's window, Andrea allows him to see that a shadow which resembles a flying broomstick to the boys belongs to a mundane soup ladle. Even after witnessing this proof, the boy still cries out with added fervor, "She is a witch! She is a witch!" (Brecht, Galileo 128). The young boy's denial of the truth, despite the evidence, contradicts Galileo's earlier convictions that the public can implement their doubt and reason to guide the advancement of science in a socially responsible manner. From this revision of the final scene and the real historical context which informed it, the possibility of committed scientific pursuits that aim to benefit humankind while resisting exploitation, even under the public's supervision, seems increasingly improbable.

For this socially irresponsible mindset of people, Brecht blames Galileo for failing within his social role as an intellectual, reflecting the historical concerns in the United States about the role and responsibility of the scientist following World War II. At the beginning of the play, Galileo presents his invention of the telescope to The Great Arsenal of Venice and profusely announces his complete allegiance to the Catholic Church; he describes himself as their "obedient servant" who "has always counted it his privilege to offer [them] such discoveries and inventions as might prove lucrative to the manufacturers and merchants of [the] Venetian Republic" (Brecht, *Galileo* 55). An historical parallel immediately appears between Galileo and the scientists who worked on the atomic bomb under allegiance to the United States government. Rather than considering the other possible benefits or ramifications for society, the scientist readily offers scientific advancements to the institution without thinking about the public. Galileo trades his invention for monetary gain, affirming this selfish motivation and socially irresponsible attitude: "I have no patience...with a man who doesn't use his brains to fill his belly" (64). This brash declaration conveys the character's self-centered outlook as well as the capitalist undertones evident in his actions, which Brecht clearly wants to emphasize throughout the play. Galileo's desire to gain a profit for his intellectual work distracts him in many ways from considering the societal implications of that work.

John T. Dorsey notes that this depiction falls within other Faustian portrayals of scientists in postwar literary works—especially those written by German playwrights—after the atomic bomb's ruination. According to Dorsey, part of this archetype entails that the scientist essentially "makes a deal with the Devil," ignoring the consequences of their discoveries in exchange for worldly rewards (278). In Galileo's case, the Catholic Church operates as the "Devil," and the Administration that commissioned the development of the atomic bomb functioned in a similar way by displacing moral judgment with nationalistic, worldly concerns for the scientists involved. Literary works before the war nationalistically encouraged the scientific community to construct weapons that would defend their country, whereas works following the atomic bomb captured the essence of a movement that promoted responsibility for scientists. The play's negative depiction of Galileo as an intellectual who aligns himself with Authority instead of society clearly represents the latter model for an audience in postwar United States.

Aside from surrendering his inventions to the Catholic Church, Galileo also expresses materialistic desires consistently over the course of the play, another factor which adds to the character's complicit behavior. For instance, the scientist explains to his friend Sagredo, "And I like to buy books—all kinds of books. Why not? And what about my appetite? I don't think well unless I eat well. Can I help it if I get my best ideas over a good meal and a bottle of wine?" (Brecht 61). Not only do these lines reflect Galileo's lack of concern for the social applications of science, but this statement also incorporates an element of the Marxist dialectic which includes "the principles of historical specification, critique, and revolutionary practice" (Kellner 30). To promote revolutionary practice and critique capitalist society, Brecht attempts to showcase the perspectives and behaviors that individuals develop based on social classes (Kellner 31). As an individual of a society that reflects a bourgeois system, Galileo unapologetically seeks and savors the finer pleasures in life, which outweigh his desires to challenge the status quo within society. As the scientist puts it, "I cherish the consolations of the flesh. I have no patience with cowards who call them weaknesses. I say there is a certain achievement in enjoying things" (Brecht 92). Galileo clearly subscribes to the capitalist notion of "achievement" or "progress" as economic or materialistic gain. The character exhibits the behaviors and attitudes of an individual who values worldly pleasures, which somewhat prevents him from fulfilling his responsibility to dispute the social order.

Galileo's self-preserving and indulgent tendencies, moreover, make it exceptionally difficult for him to look out for anyone except himself in the end. Anthony Squiers examines this 'split character' technique in Brecht's work, which incorporates the Marxist differentiation between "individual-being" and "species-being" (103). Even though Galileo wants to remain loyal to the truth about his scientific discoveries, his duty to himself triumphs against his duties to the scientific field and society as a whole, a direct result of the antagonistic nature of bourgeois society. Thus, Brecht depicts Galileo as an individual who largely neglects his responsibility as a man of society to change the existing social order and invites the audience to criticize the character's actions which mirror those of scientists in modern society. Surely, we cannot condemn Galileo for simply wanting to enjoy a painless life, a savory meal, and books, though. Of course, people should actively confront injustices within society, but we cannot ignore the rigid systems that exert such an unshakeable force upon people while pointing fingers accusingly at individuals trying to survive within that system.

Toward the end of the script, Galileo's submission to the Church under intimidation further portrays him as a failure within his social role as a scientist. Despite knowing the truth about the heliocentric model of the universe, he retracts his findings and seemingly allows the Church to continue exerting their power over society. Years after his defeat, Galileo thoroughly reproaches himself for this choice:

I take it that the intent of science is to ease human existence. If you give way to coercion, science can be crippled, and your new machines may simply suggest new drudgeries...At that particular time, had one man put up a fight, it could have had wide repercussions...I surrendered my knowledge to the powers that be, to *use* it, no, not use it, to *abuse* it, as it suits their ends. (Brecht, *Galileo* 124)

In a didactic manner, Brecht utilizes this final monologue of Galileo's to speak to the audience about the dangers of individuals, especially scientists, mindlessly following orders of powerful systems. Since Galileo does not remain faithful to the integrity of his scientific discoveries, Brecht seems to suggest that he allows the ruling class to undermine the socially conscientious applications of science. In a similar manner, the scientists working on the atomic bomb arguably allowed the United States government to take advantage of their intellect and harness it in whatever way fit their interests. A statement by Robert J. Oppenheimer, one of the most notorious scientists who forged the atomic bomb, reflects the exact concerns Galileo comes to understand too late: "the experiences of this century...have shown in a poignant way how much the applications of science determine our welfare and that of our fellows" (qtd. in Schweber 178-179). Since Galileo permits the Church to repress his scientific discoveries, maintaining ownership of scientific pursuits, Brecht claims that the character "jeopardise[s] true progress," and that "astronomy revert[s] to being just another scientific subject, the domain of experts, apolitical, isolated," ultimately capable of repressing society as a whole (*Journals* 308). Through Galileo's self-indictment of his neglected responsibilities as a scientist, Brecht illustrates that the quest for knowledge must never divorce societal implications to a postwar audience struggling to comprehend the fallout of the atomic bomb. If that schism occurs, knowledge leads to dangerous consequences, such as the bomb's calamitous effects for the civilians of Hiroshima and Nagasaki as well as the rippling fear of nuclear warfare. The question remains, however, whether we can hold the individual solely accountable for these applications of science when institutions or political systems demand such compliance under strict orders.

On several occasions, we see that the repressive system in which Galileo lives also exploits him as a worker for the upper class in his society. At the beginning of the play, the Curator mentions one of Galileo's previous inventions which impressed the Chamber of Commerce, and tells the scientist that he should create something else with "practical" use which will increase the wealth of the businessmen in his society (Brecht, *Galileo* 53). Unlike the group of businessmen who profit from Galileo's labor, the scientist repeatedly mentions that he needs money; he expresses to his friend, Sagredo, "[The Senators] don't pay me as much as they pay the butcher's boy" (61), and later tells his daughter, "The only way a man like me can land a good job is by crawling on his stomach" (64). Marx and Engels examine this degradation of the scholar's role to a simple "wage-laborer" in bourgeois society, a position which Galileo clearly holds. As the theoreticians explain, capitalist society nefariously dissolves emotional or familial relations between people into "naked self-interest" and "callous 'cash payment" ("Communist Manifesto" 659). We witness this effect during Galileo's business dealings at the Great Arsenal of Venice. Throughout the scene, Brecht includes numerous references to economic gain which illustrate Marx and Engels's point. When Galileo presents the telescope, for instance, the Curator proclaims to the officials, "Mr. Galilei has generously handed this fresh product of his teeming brain entirely over to you, allowing you to manufacture as many of these highly salable articles as you please" (Brecht 56). In contrast to the immense wealth the upper class stands to gain, Sagredo whispers to Galileo that he can now simply afford to pay his bills. The second Galileo ventures to insinuate that the telescope is "more than a money-making gadget," a tool which could be used for purposes beyond the capitalist aims of increasing profit for the upper classes, the Curator promptly interrupts him (56). The prospect of money seems only an afterthought to Galileo in this moment; he responds somewhat disinterestedly after the Curator reminds him of his payment, stating, "Pardon? What? Of course" (57). As a revolutionary thinker, Galileo understands the potential of the instrument for more than merely economic advancement. The Arsenal and Curator's careless dismissal of his ideas, however, prove that they view him as nothing more than a laborer, whose knowledge they can literally employ to further their own agenda. In this manner, Galileo represents the "oppressed" worker to an extent in the lower class who contributes to the wealth of his "oppressors" in the upper class.

Furthermore, the character's estrangement from the wealth and products of his own labor exemplifies Marx's notion of 'alienation.' The playwright's use of the word "product" in referring to Galileo's inventions reflects the capitalist overtones in the scene. According to Marx, the alienation of the worker "means not only that his labor becomes an object, an external existence, but that it exists outside him, independently, as something alien to him, and that it becomes a power on its own confronting him. It means that the life which he has conferred on the object confronts him as something hostile and alien" (Marx, Economic 29). As a worker for the upper class, Galileo's intellectual work morphs into an external object for the capitalists in his society to sell as a commodity to whomever they choose. The capitalists own the products of the worker's labor, and moreover, largely determine the applications of those products. When the Curator suggests that Galileo make something with the same "practical" use as his previous invention, he notes the army's use of the efficient mathematical chart (Brecht, Galileo 53). The Curator's interruption of Galileo similarly points to the militant use of the telescope which will allow the Republic of Venice to detect enemy battle fleets from great distances, a proclamation which elicits a "tremendous applause" from members of the High Senate (56). Brecht purposefully highlights the uses of science for destructive means due to the capitalist aim of accumulating wealth. However, Galileo gleans no satisfaction from this work; he later asks Sagredo, "How can I work, with the tax collector on the doorstep?" and continues, "If only I could have five years to do nothing but research!" (61). The character does not absentmindedly offer scientific inventions to those in power; his economic standing necessitates it. The work he performs for the upper class means that he "does not affirm himself but denies himself, does not feel content but unhappy, does not develop freely his physical and mental energy," another result of the alienation of the worker (Marx, Economic 30). Rather than researching new scientific ideas which contest the Church's orthodoxy, Galileo must pander to members of the upper class. The bourgeois system in which he lives reduces him to a brain for their purposes, not a man beholden to the lower classes of society who could employ his intellect to inspire social change.

Moreover, even though he offers scientific inventions to those in power, the upper class primarily decides the applications of that technology.

As a member of the oppressed class in his society, Galileo also encounters extremely pervasive restrictions upon his ability to voice dissenting thoughts in public, resembling the circumstances of the real scientific community that developed the atomic bomb in the United States. At the beginning of the play, for example, the Curator tells Galileo that he may travel to Florence if he wishes to make money, but no matter where he goes, "eventually [he] will be forbidden to think—in the name of the Inquisition" (Brecht, Galileo 53). Under the Inquisition's complete dominion, personal agency is seemingly outlawed from society; people cannot even express thoughts that differ from the dominant ideology of the ruling system, let alone partake in resistant action. This comment suggests that governing bodies or institutions derive their power, in part, from the eradication of free thought which disrupts their assumed authority. By that same token, if a person such as Galileo uses their own independent reasoning, they can shake the foundation on which the authority stands, possibly causing it to crumble, an outcome which the Church cannot risk. In Rome, an official of the Church named Cardinal Bellarmin cautions Galileo, "It is not given to man to know the truth: it is granted to him to seek after the truth. Science is the legitimate and beloved daughter of the Church. She must have confidence in the Church" (Brecht 79). Bellarmin's decree and the Curator's comment make it abundantly evident that the Church authorities will not tolerate free thought which does not adhere to their orders; compliance with the Church is once again completely assumed. Society does not own scientific discoveries, because the scientific community conducts everything in the name of the Holy Church. This fact makes the nature of the authority in the play especially problematic as it subordinates all other aims of science or social movements to the supreme power of a divine

entity. At another point in the play, a ballad singer in the streets repeatedly muses to a crowd, "For independent spirit spreads like foul diseases, / People must keep their place, some down and some on top" (Brecht 100). These lyrics highlight the class struggle between the proletariat and bourgeoisie in the play as well as the notion that the public, including scientists such as Galileo, must obediently follow the instructions and beliefs of the Church without "spreading" their independent reasoning, a concept mirrors the pressures placed on the scientific community that helped create the atomic bomb for the United States government. As a citizen under a repressive regime, Galileo is not permitted to think with his own conscience or contest the beliefs of the Catholic Church in any manner, which severely inhibits his ability to control the applications of his discoveries.

This limitation of autonomous reasoning is what S.S. Schweber, author of the novel *In the Shadow of the Bomb: Bethe, Oppenheimer, and the Moral Responsibility of the Scientist,* pinpoints as the downfall of the nuclear arms race. Schweber engages with Immanuel Kant's idea of Enlightenment, which distinguishes between the 'public' and 'private' use of reason as previously mentioned (29). In circumstances that require a person to perform duties of a "civil post or office," such as an officer of the law, a pastor, or even a scientist, Kant argues that the 'private use' of reason can be limited without precluding the future enlightenment of generations (601). As a member of society, every citizen must abide by certain civic obligations; these duties might include paying taxes, following laws, or serving on a jury. In the interest of moving toward public ends for the community as a whole, governing bodies may require people within 'civic' positions to obey orders with minimal or no opposition so as not to obstruct those ends. Serving as an appointed judge in a court of law, for example, a person is expected to adhere to the established judicial procedures of a sovereign. As a judge, the person operates under

instructions of another entity and cannot dispute the legal system in a court of law without obstructing justice. Within the role of a 'scholar,' on the other hand, Kant asserts that people must be allowed to use their reason freely in public, speaking out against injustices or other issues they find in society. Acting outside of a civic role, as a member of their community or the larger world community to which they belong, a person can openly share their own "carefully examined and well-intentioned thoughts" with the rest of the public for everyone to judge for themselves (602). Kant finds no qualms with an authoritative figure who demands obedience; the enlightenment of society, based on Kant's theory, hinges only upon "the freedom to make *public use* of one's reason in all matters" (601). The confidential nature of the Manhattan Project, as Schweber explains, restricted the scientists' ability to use their reason freely in public as 'scholars,' until it was too late.

The issue, then, becomes one of transparency, or a lack thereof, on the government's part, which prevents individuals who work in a 'civic' capacity on these types of classified projects from protesting the misuse of science for destructive means. Moreover, it does not follow logically that a governing body can make a legitimate claim to serve the common interests of people in society when, in situations that concern national safety, it forcefully conceals information about its motives and aims from those whom it allegedly represents or protects. One might argue that disclosure of such sensitive information would only induce widespread panic, jeopardize the 'progress' (a term which has already proven troublesome for the disenfranchised lower classes) of society as a whole, or cause a host of other problems for a nation. Let us consider, however, the greater threat to humankind in not allowing people in society to weigh in upon these decisions which affect every person who stands to suffer as a result. This touches upon interesting questions about the ambiguous term 'social responsibility' as well. Does social

responsibility mean concealing information in the supposed 'public interest'<sup>7</sup> of a nation? Or does social responsibility mean ensuring ethical decisions? The atomic bombings, as only one example of state-sanctioned violence, show us that it should also refer to the latter. In the past decade, the practice of "whistleblowing" has set a precedent for people bringing public attention to corrupt or unethical activities of organizations and political institutions in the private or public sector.<sup>8</sup> Unfortunately, while protective legislation exists, people who participate in this act can still face social stigmas, loss of employment, and legal consequences, including criminal charges (Poon 89). Again, we see that the responsibility of guiding scientific pursuits in an ethical manner cannot fall on the shoulders of any single individual. In many cases, institutions thwart people from examining important ethical and social questions, a factor for which we must also hold political systems or institutions accountable.

On a larger scale, the Holy Roman Church, and specifically the looming threat of the Inquisition, vehemently denies Galileo or any other individual the opportunity to use reason freely in public to dispute the Church's actions. At the beginning of the play, we discover that Galileo teaches students about astronomy in the privacy of his own home, perhaps because he cannot do so in a public setting where his instructions would seem too controversial. When Galileo speaks to one of his students, Andrea, about their lessons, he plainly states, "I wouldn't talk about our ideas outside," then responds to Andrea's confusion by elaborating, "Certain of the authorities won't like it" (Brecht, *Galileo* 50). During a conversation with Sagredo, Galileo also suggests that God lies "within ourselves...or—nowhere," to which Sagredo nervously

<sup>&</sup>lt;sup>7</sup> In "A Justification of Whistleblowing," Manohar Kumar and Daniele Santoro discuss the ubiquity of this term in politics, but explain that few concretely define it (676).

<sup>&</sup>lt;sup>8</sup> Kumar and Santoro provide a tentative definition of "whistleblowing" as "the act of disclosing information from a public or private organization with the purpose of revealing cases of professional misconduct, or the violation of democratic procedures, that are of immediate or even potential danger to the public interest" (669-670).

replies, "Ten years ago, a man was burned at the stake for saying that," because he recognizes the sacrilegious nature of the ideas that Galileo carelessly implies (62-63). Although Galileo believes he can provide undeniable proof to support his unconventional theories, Sagredo incredulously asks, "Do you really believe proof will make any difference?" (63). From this ominous exchange, we grasp the enormous risk Galileo faces if he voices his reason too boldly in public; the Inquisition will punish him for compromising their position of power, regardless of the evidence. As a public intellectual or 'scholar' within his society, Galileo cannot share dissenting attitudes against the Church's hegemony aloud in public, which demonstrates his precarious position as an intellectual who deeply holds controversial beliefs, but cannot raise embarrassing questions about society without endangering himself.

More significantly, the play illustrates the enormous difficulty, if not impossibility, of a person opposing those who enforce restrictions upon the public use of reason within society. We witness these obstacles as Galileo confronts the group of scholars, whom Sagredo aptly calls "court monkeys," in Florence; this group of intellectuals dutifully serves the interests of the Church without any reservations (Brecht, *Galileo* 64). Opposed to these scholars, Galileo does not shy away from exploring new ideas that do not align with the Church's orthodoxy. For example, Galileo begs the philosophers and mathematicians to peer through his telescope, which would enable them to observe the distant stars in the universe, but none of them will listen to him. One mathematician even suspects fraud, implicitly accusing Galileo of painting the stars on the lens of the telescope. The group of scholars' refusals to entertain new discoveries demonstrates the safeguarding of "old teachings," and most importantly ignorance, that occurs in an immature society. Kant posits that these "precepts and formulas" of sorts function to entrap individuals in a state of permanent minority (600). Rather than accepting the reason of a fellow

scholar, the group maintains the "authority" of two-thousand-year-old teachings, perpetuating a state of minority and the Church's rule. Not only do they refuse to acknowledge Galileo's evidence, but they relentlessly mock his theories which counter the Church's upheld beliefs, specifically the Copernican model of the universe. After Galileo's failed demonstration of the telescope, moreover, some of the scholars and religious figures begin treating him as a heretic. One of the monks calls the telescope a "diabolical" instrument, and an old cardinal crassly refers to Galileo as an "enemy of mankind" for suggesting that the earth, and therefore humankind, lies on the "outskirts" of the universe with other planets (73). The hostility with which the group of scholars and religious officials greet Galileo in Florence signifies the danger and difficulty which individuals face when confronting these 'guardians,' as Kant terms them, of minority. Kant argues that this presence of danger, however, is illusory to a degree, an intimidation tactic to discourage people from seeking a state of enlightenment on their own (600). In Galileo's case, the repeated allusions to Giordano Bruno-a man burned alive at the stake for voicing his dissenting opinions—tell us otherwise. Even though Galileo attempts to introduce revolutionary ideas, we understand the very real danger the Catholic Church poses to his life.

In every implicit or explicit association between Galileo and Giordano Bruno throughout the play, Brecht intensifies the imminent peril in which the character places himself by merely speaking or acting against the Church's authority. On several occasions, when Galileo tells other characters about his unorthodox theories, the playwright suggests the gruesome fate that awaits him if he continues to spout out his ideas. As Galileo considers moving to Florence, for example, Sagredo speculates that his friend is "traveling the road to disaster," then expresses that Galileo's insistence on pursuing controversial truths about science will lead to his persecution; he anxiously exclaims, "A moment ago, when you were at the telescope, I saw you tied to the stake, and when you said you believed in proof, I smelt burning flesh!" (Brecht, Galileo 65). Later, when Galileo interacts with the court officials and scholars in Florence, the Old Cardinal gives validity to Sagredo's concerns, telling Galileo that he "bear[s] a striking resemblance to the man [the Inquisition] burned," whose name eludes him (73). Even without saying Giordano Bruno's name, the character's observation, or thinly veiled threat, conjures the harrowing mental image of a person burning on the stake and forces us to imagine Galileo in this scenario. At another point, Galileo displays an awareness of this risk, but exhibits a somewhat cavalier attitude about it. The scientist rather sardonically tells his assistant, Federzoni, that he "cannot afford to be smoked on a wood fire like a ham" before he decides to publish his theory against the Church's writ in the same scene (89). Evident in the character's remark, he does not yet fully comprehend the gravity of his position as an enemy of the Church; nor does he seem to register the physical suffering which a person in this situation would endure. By downplaying the threat to Galileo's life, the playwright encourages us to disregard the pain involved in such a personal sacrifice as well. Unfortunately for Brecht's idea of an unflinchingly resolute public intellectual, the playwright ensures that we cannot view Galileo's actions without also picturing the almost certain death he will face at the hands of the authorities should he not comply with the Church's orders.

On top of this danger, we see the pervasive state of minority which holds an unrelenting grip over people in Galileo's society through descriptions of the lives of minor characters. To convince Galileo that he cannot refute the Church's belief system, for example, the character named Little Monk describes his parents' rote lives to the scientist: "They scrape a living, and underneath their poverty there is a sort of order. There are routines. The routine of scrubbing the floors, the routine of the seasons in the olive orchard, the routine of paying taxes. The troubles

that come to them are recurrent troubles" (Brecht, Galileo 83). As individuals under the oppressive rule of the Catholic Church, Little Monk's parents accept barely gaining enough to survive and leading unfruitful lives, reduced to never-ending routines. In Marxist terms, the characters remain completely alienated from the wealth of their own labor, to an even greater extent than Galileo. We see the "precepts and formulas" that Kant discusses in full effect as they function to prevent people in the lower classes of society, such as Little Monk's parents, from implementing their reason to escape the "routines" of their repetitive lives. Instead of thinking for themselves, Little Monk's parents suffer under the instructions of the 'guardians' of society who tell them what to think and what to do. In Little Monk's eyes, there would be "no meaning in [their] misery" if Galileo disproves that the earth is the center of the universe, fixed perfectly where God can overlook their suffering and reward them in Heaven (84). However, rather than shifting the blame onto the characters' parents, who foolishly view their suffering and lack of fortune as pious, Little Monk's powerful speech reveals that the spiritual order the Church imposes gives a sense of meaning to their lives, otherwise reduced to nothing but alienating labor. The character then correctly pinpoints what is at stake in unmooring the Catholic Church's religious doctrine, which the 'guardians' of society help enforce: social order. If this belief in the Catholic Church's assumed authority no longer existed, as Little Monk suggests, his parents would revolt and struggle against the status quo, fighting to better their conditions in their current world, rather than patiently awaiting their rewards in the next one. Even Little Monk fears disturbing his parents' "peace" by supporting Galileo's theories, because he believes it will bring them emotional and spiritual pain by overturning that order. The Church's imposed religious teachings render the community of scholars and society in the play momentarily incapable of

using their independent reason to contest the social order, but more significantly, their authority presents an almost insurmountable obstacle for people such as Galileo who endeavor to try.

Regardless of this threat, the climactic scene in which Galileo finally recants reinforces the notion that individuals should remain stalwart in their resistance against repressive systems. Brecht never actually allows the audience to see, with their own eyes, the intimate moment when the Holy Inquisition shows Galileo the torture instruments which scare him into submission. Instead, the scene in which he recarts opens with a poem that resonates with regret for society: "June twenty second, sixteen thirty three, / A momentous day for you and me. / Of all the days that was the one / An age of reason could have begun" (Brecht, Galileo 111); the entire Age of Reason rests on Galileo's shoulders in this moment. Outside in the garden, Galileo's friends anxiously await the announcement that their colleague and teacher did not recant. One of his closest friends, Andrea, confidently insists, "Man is constant in the face of death," then exclaims, "Beaten humanity can lift its head. A man has stood up and said No" (113). The character expresses all the heroic expectations which the playwright places on the scientist. When the town crier emerges in the street to read Galileo's renouncement of his theories, their hope quickly turns into despair. Rather than describing the intense emotional or physical degradation of Galileo, the individual under repression, Brecht highlights the disappointment of the protagonist's friends. Andrea symbolically states, "Unhappy is the land that breeds no hero," implying that Galileo was the hero who needed to sacrifice his life for the noble truth of scientific discoveries and resist the authorities (115). Narrowly escaping a gruesome execution does not satisfy Galileo's friends, all of whom thoroughly shame him for his defeat. When the scientist enters the scene, nobody even acknowledges his presence. After noticing him, Andrea states, "I can't look at him. Tell him to go away," then observes that Galileo managed to "save

his big gut," once again admonishing his "selfish" motivations (114). This portrayal foregrounds the importance and responsibility of individuals such as Galileo to resist oppressive systems, leaving the impossible situation the individual faces in the background, which we cannot ignore.

The character's process of dehumanization under the Holy Inquisition's interrogation demonstrates the sheer brutality repressive systems can employ when individuals threaten their power, which strips personal agency from even the most devout people. Brecht focuses extensively on Galileo's revolutionary mindset early in the play, which stresses the deterioration the character undergoes. After Little Monk describes his parents' lives, for example, Galileo cannot fathom their submission to the Church; he shouts, "No! No! No! As much of the truth gets through as we push through. You talk about the Campagna peasants as if they were the moss on their huts...I can see their divine patience, but where is their divine fury?" (Brecht, Galileo 85). These lines convey the scientist's utter outrage over the obedience of those in society who lead humble lives without questioning the ruling class's authority or the social order. At another point, Galileo also proclaims his staunch commitment to knowledge, boldly stating, "I think I would let them imprison me in a place a thousand feet beneath the earth, where no light could reach me, if in exchange I could find out what that stuff is: 'Light'" (86). When the Holy Inquisition interrogates Galileo in Rome for his heretic endeavors, however, his convictions utterly diminish in the face of possible death or torture. When he finally reappears from the literal torture chamber, the character is "changed, almost unrecognizable" after the experience (114). Years later, Galileo admits to his student, Andrea, the reason he submitted to the authorities: "I recanted because I was afraid of physical pain" (122). Douglas Kellner explains that Brecht's Marxist aesthetic attempts to demonstrate how bourgeois society's "environment influence[s], shape[s], and often batter[s] and destroy[s] the characters," which we clearly see in

Galileo's transformation (4). Regardless of the character's tireless devotion to science, to the truth which could free those in society such as Little Monk's parents, the threats of the Church and the possibility of torture force him to betray his passions, beliefs, and whole life's work in a single moment. The repressive regime under which he lives effectively batters and destroys a brilliant physicist, converting him into nothing more than a body that only desires to avoid an excruciatingly painful death.

# Conclusion

How can the actions of a person in the seventeenth century, in a play rewritten during the twentieth century, possibly hold any bearing on our understanding of events today? Simply, literature can impact our perception of the world at any given time, and sometimes, motivate us to change it. With a playwright such as Brecht, that is never truer. But how do we reconcile the glaring contradiction between the playwright's intention to end violence in society and the way he dismisses the violence against the individual in the play? To overlook violence, under any circumstances, can only lead to more violence. Ironically, the playwright dehumanizes the main character in a similar way that the oppressive system in the play does. The title change of the second version from *Leben des Galilei* (Life of Galileo) to *Galileo* perfectly illustrates this point. Brecht reduces the human experiences of a real person to a rhetorical device, a symbol at once emblematic of a social movement and a failure of individuals to fulfill the goals of that movement. In essence, the playwright performs the role of the Inquisitor, who interrogates the character's crimes and exacts his punishment for all of us to witness.

It is tempting to look for an easy solution, to expect people to defeat the "villains" of the world and save the day, but that is never a simple feat. In refocusing the lens through which we interpret the play, we see Galileo not as a mere symbol, but as a victim of violence in an

oppressive system. His actions are not due to mere shortcomings, but systematic problems which we still face. Even though individuals comprise systems and institutions, those forms of power often create several obstacles that prevent people from raising their voice to challenge their authority. We have seen the extensive measures that repressive systems and structural forms of power can take to restrict a person's ability to resist. In varying degrees, institutions enforce limitations upon the use of free thought in public. People cannot always speak openly about mistakes or unethical decisions they believe an institution, political or religious in nature, is committing.

Throughout the play, Galileo finds himself facing the possibility of physical torture and the ultimate sacrifice if he does not submit to the authorities. With the scientists who worked on the atomic bomb in the United States, the government imposed less dire, yet nevertheless rigid, limitations which allowed the atomic bombs to decimate thousands of human lives in a fell swoop before the individual scientists or the public could ever share any concerns about this decision. The government's lack of transparency raises an important question about the legitimacy of confidentiality. Confidentiality can make it difficult for individuals to ensure that governments represent the people it allegedly serves. On a larger scale, it also presents obstacles that prevent people from ensuring ethical decisions which impact the world community to which we all belong. While the public use of reason may not inevitably lead to a fair moral judgement in all cases, it would enable everyone in society to hold each other, as well as the systems which they comprise, accountable for enacting violence against other human beings.

Furthermore, the play provides an important criticism of bourgeois society which exploits and alienates people. For the exploited workers of the lower class, the necessity to earn a living wage can distract people from looking beyond their jobs and confronting injustices or social inequalities. Moreover, the capitalist aim of monetary gain frequently outweighs the need to consider the ramifications of misusing technology. Knowledge is never neutral. There is always the potential for someone to exploit it, on an individual or institutional level. The atomic bomb serves as only one hideous example, but we do not need to look far into the past to find countless others. The issue of gun violence prompts many people to claim, "Guns don't kill people, people do," but this absurd notion oversimplifies the factors which allow people to mass produce weapons for a profit and consumers to easily access them. Combat drones now let us destroy entire villages without individuals ever coming face to face with the "enemy." This alienation which occurs in bourgeois society allows individuals to feel completely disconnected from the violence we inflict upon each other with the 'products' of people's minds.

It is not only unreasonable, but ineffective to expect one person to change an entire system alone. Despite the playwright's implication that people in society learn to doubt public intellectuals instead of the authorities because of Galileo's actions, we understand that that is not the case. The ballad singers cry out "Bible-killer!" in the streets long before Galileo's characterdefining moment, for the playwright, when he decides to recant. We can realize there will always be those in society who cling to the established truths and order, who refuse to listen to new or different ideas, but this should not discourage us from raising the important questions that shake things up. It merely proves that we must, at all times, examine the reasons people do not or cannot prevent injustices in society. If we are to understand the exploitation of scientific advancements for destructive means or hope to prevent acts of violence in the future, we must demand accountability from systems as well as individuals in society. Finally, we should always criticize representations of violence that, unwittingly or not, perpetuate violence.

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