Galileo’s Struggle over Discourse: Brecht’s Extraordinary Expectations

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The emphasis on staging a play with a content that estranges its spectators was a revolutionary move on part of the German dramatist Bertolt Brecht. This was perhaps the only way he was able to jolt his audience out of their complacency and recognise the value of reason. Reading his \textit{Galileo}, as one such contribution that made art’s shift from the psychological to the political and from the cathartic to the educational possible, we argue that Brecht had extraordinary expectations from Galileo as he sees him failing to defeat the functionaries of the ISAs and bring about the necessary changes in the ‘relations of production’. It is impossible for one man to achieve a radical transformation of the ISAs while he was actually aiming at showing the truth that the earth was not the stationary centre of the universe and life on this planet was owing to the velocity it had acquired.

\textbf{Keywords}: Galileo, Brecht, New Science, Ideology, ISAs, Discourse

\textbf{Introduction}

German dramatist Bertolt Brecht’s \textit{Life of Galileo} is a play based on one of the greatest scientists, the Italian astronomer Galileo Galilei’s life. It reflects Brecht’s theory of the epic theatre which unlike classical theatre was political in nature and showed facts and reality and promoted reason rather than escapism. These shifts from the psychological to the political and from the cathartic to the educational resulted into what is called alienation for the spectators. Brecht has voiced his idea of the epic theatre (also known as dialectical theatre) at multiple occasions. According to him:

The dramatic theatre’s spectator says: Yes, I have felt like that too – Just like me – It’s only natural – It’ll never change – The sufferings of this man appall me, because they are inescapable – That’s great art; it all seems the most obvious thing in the world – I weep when they weep, I laugh when they laugh. The epic theatre’s spectator says: I’d never have thought it – That’s not the way – That’s extraordinary, hardly believable – It’s got to stop – The sufferings of this man appall me, because they are unnecessary –
That’s great art: nothing obvious in it –I laugh when they weep, I weep when they laugh.
(Brecht 71)

This emphasis on staging a play with a content that estranges its spectators was a revolutionary move on part of Brecht. This was perhaps the only way he was able to jolt his audience out of their complacency and recognise the value of reason. Brecht found a representative figure for his pursuits of intellectually raising his contemporaries in early modern scientist Galileo and wrote the *A Life of Galileo* showing the possible ways one could employ to take his audience into the so-called forbidden matters of scientific inquiry.

Alive to his time’s renaissance spirits - “Everybody is eating and drinking science nowadays…” (7), Brecht’s Galileo was aware of the revolutionary implications his new science had for society, well before the church recognised it and tried to suppress his discoveries, as he tells his student Andrea early in the play:

> For two thousand years people have believed that the sun and all the stars of heaven rotate around mankind…but now we are breaking out of it, Andrea, at full speed. Because the old days are over and this is a new time…but now the word is ‘that’s how things are, but they won’t stay like that’…What was never doubted before is doubted now…The universe has lost its center overnight…

(7: scene 1)

This awareness kept him on guard as the play shows throughout his life, helping him to avoid punishments and win the luxuries of time and focus required for the kind of revolutionary and epoch changing scientific work he was doing in this “new time” in a Europe that had not liberated itself of the dominant ideologies and ideologues.

Frederic Jameson points out that Brecht’s play *A Life of Galileo* is about “a peasant Middle Ages shaking off its timeless lethargy in the new science of Galileo” (Jameson 139). Brecht held “[the] view of peasant life—as cyclical, as rife with catastrophes of all kinds which cannot, however, lead to genuine historical change” (Jameson 137). Only Galileo’s new science could interrupt such a cyclical, unchanging condition of the society. Thus, Galileo is heady and confident about the power of reason or science to prevail. Though, predictably, as soon as he tries to share his new science with his world, Galileo runs into trouble. This nascent, early modern, proto-capitalistic society is not ready for his intellectual assault. In Brecht’s play we are shown that he is interrogated in Rome and out of the fear of being tortured, recants his teachings, and goes under a house arrest where he would be watched by a priest. But Galileo’s romance with science and his faith in its truth is so strong that he secretly prepares a manuscript of his discoveries which he finally succeeds in handing over to Andrea, one of his former pupils, to smuggle across the border. Although society is eventually changed by his new
science, in the process his science is compromised forever as it became a tool in the hands of the powerful.

Galileo’s capitulation to the Inquisition, his belief in reason, and his understanding of how a society is structured creates the central tragedy of this play. As he tells his student Andrea, when he recanted his scientific beliefs he had not acted out of cunning, but out of fear of the instruments of torture, and thus had betrayed himself and compromised his science (106-107: Scene 14). The thesis of this paper, on the other hand, says that his recanting in front of the Inquisition is not what compromises him and his science, but another very real failure: his failure to bring about a change in the “relations of production” in the Italian society implied in the philosophical consequences of his science.

Keeping in view Brecht’s Marxian perspective, we will resort to an Althusserian Marxist understanding of society, and a society’s relation to knowledge and science to demonstrate the validity of our thesis. The French philosopher Althusser asserts that the control of the dominant class is maintained by deploying two types of apparatuses: repressive state apparatuses (RSAs) which consider the use of violent repression its right, while ideological state apparatuses (ISAs) are a particular kind of education usually through the discursive construction of national or communal emotions. While the repressive state apparatuses are used to immediately curb resistance, the ideological state apparatuses are put in place as a long-term policy to keep order among the ruled. We will also depend on Stuart Hall’s article “The Rediscovery of ‘Ideology’,” applying Hall’s theorisation to see Galileo’s fight as fight to win the privilege as a scientist to change discourse whenever Althusser’s critical approach reaches its limits. By adopting this approach, we can better understand the dynamics of this very interesting play. We shall be able to predict how a functionary of an ISA (the Pope in the play) or a functionary of Repressive State Apparatus (such as the Inquisitor) will most likely behave; which direction an encounter between Galileo and the church will go, and why; when Galileo behaves as a radical or when as merely a functionary; when Althusser’s combat position is not the right model and when to switch to Stuart Hall’s idea of “politics of signification” - the framing and classifying of the debate.

Galileo’s Herculean struggle starts innocuously with a bid to increase his salary so that he would have more time to do his scientific work. At first, he is turned down, but he understands exactly how to entice the Republic of Venice. Cognisant of its ideology, he knows that trumpeting his usefulness as a teacher is not going to win him any points. He therefore switches to the language that the Doge (magistrate and leader of the Republic of Venice) and the senators of the Venetian court will understand: the language of commerce. Even in those early modern times when capitalism was not as systematic and inhumanly posthuman, it controlled the public consciousness forcing great scientists like Galileo to change their semantics in its favour. So, he pretends that he has just invented the telescope and makes a gift of it to the republic. The salivating rulers of the republic see it both as a defence tool as well as an instrument that they
can take to international markets and pile up revenue. This wins Galileo the salary increase he was denied earlier.

Confidence in Galileo’s abilities as the advocate for his scientific revolution is put seriously into doubt early in the play with the episode with the telescope and doubting Florentine court savants (courtiers with intellectual pretensions) in scene four. Unimpressed by Galileo’s plea that uses the language of experiment and proof, the savants, in a true post-structuralist fashion, refuse to look through the telescope. They are not interested in “the referential notion of language” (Hall 1050). Whether the newly christened Medici stars exist or have been merely painted on the lens of the telescope is irrelevant. Projecting Galileo’s struggles over discourse, this scene showcases his passion for scientific proof versus the grand duke who happens to be a child of nine years. Galileo’s servitude in his court and his pleas to and reasoning with the court savants record a history of efforts that scientists like Galileo had to put in beyond the laborious lab work.

It is this work that makes Galileo seem like an old-fashioned empiricist. For him, the stars observed through his telescope make the world. When the savants quote Aristotle, Galileo’s assistant Federzoni complains like an empiricist: “The fellow had no telescope” (41: scene 4). The dominant ideology of the church reigns over the savants, making them incapable of having the scientific outlook - experimentation, observation, etc. Federzoni’s comments leave them unfazed and one of the scholars retorts: “an authority [i.e., Aristotle] recognized not only by every classical scientist but also by the chief fathers of the church” (42: scene 4). Responding to this logical fallacy of the appeal to authority being boldly used throughout the scene, Galileo asserts that: “Truth is the child of time, not of authority” (42: scene 4) and that “belief in the authority of Aristotle is one thing, observable facts are another” (41: scene 4). Helplessly, Galileo “becomes more and more obsequious, even as he grows more and more insistent” (White 55): “But all you gentleman need do is look through the telescope!” (45: scene 4). What transpires in Galileo’s house, if looked at from Hall’s point of view, is “struggle over discourse.” Galileo fails to dynamically manufacture a dominant ideology. He unsuccessfully frames the problematic in his own scientific terms which have no validity for the savants.

In addition to the church’s dominating ideology which interferes with what should have been the scientific curiosity of the savants, there is another related reason that makes the business of convincing the savants so difficult. The savants fail to grasp Galileo’s very Althusserian belief in the precedence of science to any philosophy and not the other way around. What they are witnessing is the birth of a new science, without the framework of the new ideology and new philosophy to help them understand it. It is only when a new science has once come into existence does it engender a new philosophy, a new ideology, a new world view. It is this tenet that turns out to be the most subversive.
When the procurator of the university complains about the telescope’s usefulness, Sagredo comes to its defence: “I may not be competent to judge this instrument’s value for commerce but its value for philosophy is so boundless that…” (25: scene 3). Like the savants, the Procurator too is ignorant of this tenet: “Philosophy indeed. What’s a mathematician like Mr. Galilei got to do with philosophy?” (25: scene 3). Galileo shares with Althusser that the reason is an that object of philosophy should follow science.

Galileo is aware that his new cosmology, his new science, is supposed to have a revolutionary, emancipatory effect on society. When the little monk in scene eight says that his parents, who are peasants, who have nothing, need at least the consolations of the belief in religion, Galileo makes it very clear that he understands the revolutionary impact of his science, and the deeper understanding of how society is constituted that it gives him:

Goodness of soul! Aren’t you really saying that there’s nothing for them, the wine has all been drunk, their lips are parched, so they had better kiss the cassock? Why is there nothing for them? Why does order in this country mean the orderliness of a bare cupboard, and necessity nothing but the need to work oneself to death? When there are teeming vineyards and cornfields on every side? Your Campagna peasants are paying for the wars which the representative of gentle Jesus is waging in Germany and Spain. Why does he make the earth the center of the universe? (67: scene 8)

The passage quoted here ends with the line questioning the older, defunct cosmology and holding it responsible for the present suffering. This means that Galileo is not only struggling to challenge and change the course of the scientific discourse but also aiming at reshaping the social discourse bringing a breath of relief to the teeming millions by giving them a fresh, liberating worldview. He does this by using the idiom of the common man. However, in order for his message to get across, it is equally important that his interlocutor also speaks the same language. Galileo is able to convince the little monk because they both speak the same language of science. In Althussserian terms, Galileo as a teacher with an ideology is able to interpolate the little monk as a subject. The monk was “prepared to reason” (68: scene 8), unlike the savants.

It is also in this conversation with the little monk that Galileo understands why he had failed before and decides on a change of strategy “[a]fter keeping silent for eight years” (69: scene 9). Since the earlier approach of reasoning and discussion did not work, what is needed is to win a combat position inside the principal ISA, the church. Galileo now understands that “[t]he only truth that gets through there will be what we force through” and he decides that he has to rely on his old friend Cardinal Barberini who has just become the new pope. He fulfils the Althusserian injunction of “conquering combat positions in them” [ISAs] (Althusser 76).
But rather than fight for Galileo’s new science the new pope quickly surrenders to the pressure from the Cardinal Inquisitor in scene 12 betraying Galileo’s hope, just as Galileo will later recant in front of the Inquisition betraying his student Andrea’s trust and also compromising the future of science. But the truth is that both did not really have a choice.

Galileo was up against an institution where all his persuasive powers, his powers of reason, and even his charm have no effect. Dealing with an institution like the Inquisition, perhaps the best example of the Repressive State Apparatus, can have only one outcome - defeat. The possible use of increasingly violent means to “persuade” guaranteed complete acquiescence of the subject. If the threat of torture does not work, torture itself will be used, and if that fails to work there is always burning of the accused on the stake.

The Pope’s quick surrender rests on two causes: the Pope’s interpolation as a subject of the church as enacted in the scene of the symbolic robing of the Pope and the Cardinal Inquisitor’s privileged position in the church to “classify and frame” the discussion. In the text of scene twelve, we have the stage directions: “In the course of the audience [with the Cardinal Inquisitor] he is robed” (90: scene 12). The Pope takes the entire time of his discussions with the Inquisitor to dress. At the beginning when the Pope is putting on the papal vestments, he is adamant about his support for Galileo’s counter-ideology. In reply to the Cardinal Inquisitor’s assertion (which is not part of the text), Pope “very loudly” (the stage directions) says: “No! No! No!” (90: scene 12). The rejoinder by the Inquisitor reveals that the Pope had intended to tell the clergy that Galileo’s Copernican model was correct and to “tell them that those scriptures can no longer be regarded as true” (91: scene 12). The robing of the Pope symbolically represents the Althusserian interpolating of the Pope as the faithful subject of the church. But as he more and more resembles a Pope, his enthusiastic support for Galileo wanes. Once the interpolation is complete (he is completely robed), he stops working on Galileo’s behalf. At the end of scene right after the stage direction “Pause. The Pope is now in his full robes” (94: scene 12), the Pope is only able to show bare minimum support for Galileo when he instructs the Inquisitor: “At the very most he can be shown the instruments” (94: scene 12).

The other reason his enthusiasm for Galileo wanes is that it is the Cardinal Inquisitor’s “privileged definition of the problem” (Hall 1061) is accepted in the church. Stuart Hall states “the ‘struggle over meaning’ does not exclusively play out in the discursive condensations to which different ideological elements are subject” (Hall 1061). That is, the Pope is not on a fair playing field. He is engaged in a “struggle over access to the very means of signification” (Hall 1061). It is the Cardinal Inquisitor who is permitted “to establish the primary framework or terms of [the] argument” (Hall 1061), and it is the Cardinal Inquisitor who has his way.

Galileo’s defeat at the hands of the church and the Inquisition, and the failure of the university system to come to his aid, is offset by the undeniable fact of the ultimate success of his ideas in ushering in the new scientific age. Though all the institutions involved in creating knowledge
fail Galileo, ironically the ultimate repressive state apparatus, the prison house, allows Galileo’s earlier wish for more time to work come true - “but [I] shall have the time, time, time, time to work out my proofs” (31: scene 3) - to do his most important work. It is the house arrest imposed by the Inquisition that allows Galileo to write and finish his ‘Discorsi’—a proof that Galileo’s science survives his apparent defeat at the hands of the Inquisition.

The last scene of the play shows Galileo receiving two geese as a gift from an anonymous person. Shortly after, his former student, Andrea comes to visit him. While he tells his daughter, Virginia, to attend to the geese in the kitchen, she on her way out tells the monk on watch that they have got fresh goat cheese making him follow her. This allows Galileo some time to handover the copy of his work to Andrea. The part the geese play in this scene suggests that they were sent by Andrea and as part of Galileo’s struggle, he wanted to busy any attendants upon him to allow him some time in private. This manoeuvre helped the teacher and his student save Galileo’s work. Andrea successfully smuggled the copy of the ‘Discorsi’ across the Italian border, assuring that it will survive and reach other centres where science is still being practiced, in relatively more freedom – places in which the dominant scientific paradigm represented by the ‘Discorsi’ will be successful in replacing the then outdated ideology, effectively transforming those institutions. The poem that begins the last section of the play first celebrates the rescue of Galileo’s book and his science, but then suggests that science is light and not fire and it should be used for the right purposes. This is also a warning against the exploitation of science at the hands of the powerful for their nefarious purposes, for instance, in wars and in the atomic bombing of Hiroshima and Nagasaki, etc.:

May you now guard science’s light  
Kindle it and use it right  
Lest it be a flame to fall  
Downward to consume us all.  
Yes, us all.  

(110: scene 15)

This Brechtian retrospective foreboding does come true, and Galileo’s science was later misused. This outcome was the direct result of Galileo’s defeat at the hands of the various functionaries of the ISAs, as has already been discussed. The result was that Galileo was unable to bring about the necessary changes in the ‘relations of production’ in the Italian society, so that an ISA (such as a university engaged in scientific and technological research) would serve the common interest of the people rather than that of the capitalists. To be fair in Althusser’s view, one man could not achieve such a radical transformation of ISAs, and Brecht is asking Galileo to do the impossible. There is no denying the fact that Galileo did aim at altering the ideological underpinning of the society. However, his primary job was to show the truth that the planet earth was not the stationary centre of the universe. Life on earth owed a lot to the
constant motion and the uniform velocity of the earth, and to the route it followed around the sun.

This connection of Galileo’s new science and human well-being does not get further explored leading to emancipation in human society.

Further developments could have grounded Galileo’s new science to the use of human societies as Galileo’s science is able to move outside the Italian borders and be applicable to multiple situations. However, its confinement to planet earth and in societies where the ‘relations of production’ have still remained capitalistic has not allowed its humanistic use. Thus, his new science ends up serving the interests of the few. In Italy, of course, Galileo’s science itself is repressed, causing scientific research to lag behind the rest of Europe for the next couple of hundred years.

Brecht makes certain that we do not underestimate the importance of Galileo’s failure to change the “relations of production” when he failed to change the dominant ideology of the church. Brecht does this by inserting scene ten in the play, where Galileo, unrealistically has won the public debate about the implications of his new cosmology. Brecht shows that all the church was able to do was suppress scientific work in Italy, but not the spread of social ideas directly emanating from science that eventually (perhaps for Brecht) have led to the Marxist conceptions of a just society. Brecht describes the fantastical spread of Galileo’s doctrine among the common people. Ballad-singers, pamphleteers and the carnival perform the function of mass media in early modern era. “[T]he struggle over access to the very means [as in the “world of public discourse”] of signification” (Hall 1061) has been won by Galileo. Galileo is able to get his word out. The ballad-singer sings about the ways in which the Galilean scientific revolution will change society, and the future is “foretold by the learned Doctor Galileo Galilei” (84: scene 10):

The serf stays sitting on his arse.
...
The alter boy won’t serve the mass.
....
The tenant gives his landlord hell
Not caring in the least.
His wife now feeds her children well
On the milk she fed the priest.
....

(84: scene 10)

Galileo’s real mission, though clearly impossible, throughout the play had not been simply the advocacy of his new science, but actually to struggle for societal change. By changing the dominant ideology of various institutions, Galileo could have changed the relations of
production existing in his society. Only then could he have guaranteed that his science would not be misused by the rich and powerful. Any philosophy must be preceded by science, yet in order for that very science to be practiced as a good, beneficial science, the philosophical implications of that same science must be realised in society at the same time - scientific revolution must come hand in hand with societal revolution.

REFERENCES