Galileo

Trinity Drama Club 2 023

The huts of Padua

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| Andrea | Hello everyone! My name is Andrea Sarti, the son of Mr. Galileo's housekeeper. Our story takes place in an absurd era when thought is censored, reason is suppressed, and technology is excluded. So, for the next two hours, put away your mobile phone, do not take photos, videos, or tweets. Otherwise, be careful that monks are going to confiscated it!  The story begins in 1609, more than 400 years ago. Our protagonist, forty-six-year-old Galileo Galilei, teaches at the mathematics department of the University of Padua in Italy, and is determined to prove Copernicus' new cosmology. That year, I was only eleven years old.  (While saying the last sentence, he changes into a child's costume and enters Galileo's room with a glass of milk and a loaf of bread) |
| Galileo | Andrea, you came just in time. Put down the milk and bread first, but don't close the book. |
| Andrea | Mom said we should pay for the milk. The milkman is almost to come and block the door for the bill. |
| Galileo | Another bill to pay. All of them are very smart. Even I, who taught mathematics in college, didn't know better than them. This monthly salary is almost not enough to make ends meet! |
| Andrea | Whatever. He said that if you don't give the money, he will sue you in court. |
| Galileo | OK. If the clerk of the court wants to come to our house as soon as possible, what route should he choose between the two places? |
| Andrea | Straight line! Because the straight line between two points is the shortest! |
| Galileo | Hahaha, smart! You are an excellent learner! Come on, let me show you something. (He opens a Ptolemaic model of the universe) |
| Andrea | What's this? |
| Galileo | This is called an astrolabe. It shows how the stars orbited the earth in the eyes of the ancients. |
| Andrea | I see. Is the one in the middle the Earth? |
| Galileo | Yes. These shells outside the earth are called crystal spheres. These little balls on the sphere are the stars. |
| Andrea | There seems to be some small characters next to the stars! |
| Galileo | Yes, the name of each star. |
| Andrea | This is ... the moon! That is the sun! |
| Galileo | That's right. Now let's make the sun and the moon spin. |
| Andrea | (turns the star model) It's so pretty. But it makes me feels like we are sealed in these layers of spheres, it's too stuffy to panic. |
| Galileo | Exactly. I thought the same thing when I first saw this. And I'm not the only one who thinks this way, for two thousand years, from the Holy Pope down to the five-year-old child, human beings have always thought that they are in the center of this motionless sphere, while the sun and all the things in the sky The stars revolve around it. But in the past hundred years, all perceptions have begun to change. Great voyages brought new discoveries and stimulated people's thirst for knowledge. People are no longer satisfied with citing scriptures and allusions but have to dig into the bottom line to find out for themselves. Old ideas that have been firmly believed for thousands of years are questioned, and old methods that have been used for thousands of years are overthrown. From water-powered looms to new methods of shipbuilding with five hundred men working at once, and most recently, new astronomy, we are witnessing the dawn of a dynamic new age!  Overnight, the universe lost its center; in the morning, there are countless centers again. Now every star can be the center, and every star is not the center. Because our space is so vast, and full of possibilities! |
| Andrea | You're starting to say things I don't understand again. You'd better drink the milk someone will come to visit you soon. |
| Galileo | Well, well. Did you understand what I told you yesterday? |
| Andrea | what? Copperknees’(Misreading of Copernicus) theory of rotation? |
| Galileo | It was Copernicus. |
| Andrea | I don't understand. Why are you telling me such difficult things? I'm only eleven years old. |
| Galileo | Because it's important. I particularly want you to understand it. Getting people to understand it is the reason why I go on working and buying expensive books instead of paying the milkman. |
| Andrea | But the sun I see rises from east to west and sets in the west every day. How can it stand still! That impossible! |
| Galileo | What do you see? You see nothing. Seeing is not necessarily believing. (He brings the washbasin stand to the center of the room) This is the sun. you sit down. (Andrea sits in a swivel chair, Galileo stands behind him) Now tell me, is the sun on your left or your right? |
| Andrea | left. |
| Galileo | How can he go to the right? |
| Andrea | If you move it to the right, it will naturally be on the right. |
| Galileo | Is this the only possibility? (He turns Andrea's swivel chair a hundred and eighty degrees) Where is the sun now? |
| Andrea | on the right. |
| Galileo | Does it move by itself? |
| Andrea | No. |
| Galileo | So what moved? |
| Andrea | it's me? |
| Galileo | (loudly) Wrong! It's a chair, you little fool! |
| Andrea | But I'm moving with the chair! |
| Galileo | Of course, the chair is the earth, and you sit on it. |
| Mrs Salti | (Enters the room to tidy up the room) Mr. Galileo, what are you and my son doing? |
| Galileo | It’s Mrs. Salti, I’m teaching him a lesson. |
| Mrs Salti | Do you go to class by dragging him around in circles on the chair? |
| Andrea | Don’t worry about it, mom. Anyway you won’t understand it. |
| Mrs Salti | What, I don't understand, but you understand? (To Galileo) There is a well-dressed young man who wants to ask you to take a class. This is his letter of introduction. Mr. Galileo, my son is confused by what you have taught him . He also told me last night that the earth revolves around the sun, and that Copperknee had already proved it. |
| Andrea | Copernicus really proved it. Mr. Galileo, tell her yourself. |
| Mrs Salti | What you truly told him those nonsense? You know, the priest from their school came to me and complained that he was talking about the school, has offend the God. Don’t you feel shame about this Mr. Galileo? |
| Galileo | Mrs. Sarti, Andrea and me after scientific research and fierce debate. We has made a discovery. We can no longer keep secrets from the outside world. A brand-new time full of excitement is coming! |
| Mrs Salti | Okey. I hope we can afford the milk money in this new era, Mr. Galileo. Mr. Galileo, this time please listen to my advice, don't let this gentleman away. I can still count on making some more money to paying the bill. (end) |
| Galileo | (laughs) At least let me finish the milk first! (to Andrea) Looks like you figured something out yesterday. |
| Andrea | I’m just to show off what I learned to her. But that doesn't mean the new discovery is right. You just push me turning horizontally, but never vertically. Why is this? Because you know in your heart that if I turn around like this, I will definitely fall off the chair. Therefore, if the earth rotates like this, all of us will also fall off the earth. At least it will hang upside down at night. |
| Galileo | (Picks up an apple from the table) For example, this is the earth. |
| Andrea | But this is actually an apple. Could you please don’t always make this kind of example just because you are smart. You can always explain your side. I can’t do as you do to me to my mom. So this is a bad example. But just as what you say, this apple is Earth. We can prove nothing from this. |
| Galileo | (laughs) It’s fine if you don’t want to know. |
| Andrea | Humm okay, even take this apple as an example. So why don't I just hang upside down at night? |
| Galileo | If this is the earth and you're standing here. (He sticks a toothpick in the apple) Now the earth starts to spin. |
| Andrea | You see, now I'm hanging upside down. |
| Galileo | Why? Look again carefully! Where is your head? |
| Andrea | Here, below. |
| Galileo | Really? But this is still head to the sky and feet on the ground. Is that how you stood when I turned the apple ? |
| Andrea | no. But why can't I feel the earth is spinning? |
| Galileo | Because you also spin along with it. You and the air around you and everything else on Earth are spinning together. |
| Andrea | But why does it look as if the sun is revolving around us? |
| Galileo | (insert the toothpick into the apple again) You see that the earth is always the same below you, and you think it is always below and never turns. But now you look at the top. Now there is a lamp above your head, but let me turn it around again, look at the top of your head, in other words, what is " above" you? |
| Andrea | (rotate together) the stove. |
| Galileo | where is the light? |
| Andrea | Underground |
| Galileo | Yes, you are right |
| Andrea | It's really amazing, Mom must think it strange. |
|  | (The wealthy young man Ludovic Marcily enters) |
| Ludovic | Good morning, sir. My name is Ludovic Marcily. |
| Galileo | (Reading his letter of introduction carefully) Are you from Holland? |
| Ludovic | Yes, Mr. Galieo, I’ve heard you for a long time |
| Galileo | (Continue to read the letter) Your family has a manor in Italy? |
| Ludovic | Yes, my mother wants me to come out for a walk and gain some knowledge. |
| Galileo | So, the Dutch feel that coming to Italy to see me is a gain of knowledge? |
| Ludovic | my mother always wanted me to learn about science— |
| Galileo | Private lessons, ten copper coins per month. |
| Ludovic | By order, sir. |
| Galileo | What are you interested in? |
| Ludovic | horse. |
| Galileo | What? |
| Ludovic | Sorry, Mr. Galileo. I really don't have a scientific mind. |
| Galileo | Okay. But in this case, I have to charge more. Fifteen copper coins per month. |
| Ludovic | By order, sir. |
| Galileo | I want to test you first. Sorry, Andrea, that's the end of your class for today. After all, you don't pay tuition. |
| Andrea | I'm leaving now. Can I take this apple away? |
| Galileo | take it away. |
|  | (exit Andrea) |
| Ludovic | You have to be patient with me. The main reason is that scientific truth is always not in line with normal people's thinking. Take one of the pipes they sell in Amsterdam. I have studied this stuff carefully. A tube and two lenses, one like, and the other like this. I heard people say that one piece can be enlarged and one piece can be reduced. Normal people would think they would cancel each other out. But with this thing, everything will be magnified five times. This is your science. |
| Galileo | See what can be magnified five times? |
| Ludovic | Church steeples, doves; everything in the distance is magnified. |
| Galileo | Have you ever seen these things magnified? |
| Ludovic | Yes sir. |
| Galileo | You just said that this tube has two lenses? Like this? How long has this been invented? |
| Ludovic | I think it was only a few days before I left the Netherlands at most, and the days to enter the market were not long anyway. |
| Galileo | Why don't you study horse breeding instead of studying physics? |
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| Ludovic | My mother thought there was no harm in learning a little science. You also know that today's people cannot do without science. |
| Galileo | You can go to study theology, or learn a small language that has disappeared. That's much less labor-intensive than studying science. (sees Mrs. Sarty) Well, see you next Tuesday morning. |
|  | (Exit Ludovic) |
| Galileo | Don't look at me like that. I have accepted him as a student. |
| Mrs Salti | Not because you saw me at a critical moment. (hands Galileo a letter) Here is a letter from you, it seems to be from your school. |
| Galileo | (Opens the letter and reads it for a while) Damn it, a bunch of utilitarian idiots. |
| Mrs Salti | Oh my lord, what troubles have you encountered again? |
| Galileo | My previous application for a raise was rejected again. If a scientist could not even afford the bread, what kind of scientific research could he doing? Also, what are the words here? "Your free fall experiment did cause a sensation, but your misfortune lies in the discipline you study", "Only research that can bring benefits is worth more funding", meaning that those who engage in physics deserve to be starving to death on the street? |
| Mrs Salti | You calm down first. It's not that I'm talking about you. You've been studying the earth revolving around the sun and the sun revolving around the stars. Who wouldn't be confused? To me, you should use your physics to improve our loom first. I don't know if those masters in your school are happy, but I am sure. |
| Galileo | You really think exactly like them, with "beneficial research" on your mind. (He notices the paper with the sketch of the telescope again, and takes out two lenses from the drawer and starts to hold the experiment) To be honest, if I make a gadget that allows people to see things a kilometer away, they will Don't like it? |
| Mrs Salti | That's absolutely right. Isn't that equivalent to having "clairvoyance", that’s amazing. I still remember the improved compasses you invented last time, they were very rare, and we all ate meat after that time ... |
| Galileo | Mrs. Sarti, please help me go to the optical shop and buy all kinds of convex lenses and concave lenses. I'm going to use it now. |
| Mrs Salti | that money ... |
| Galileo | Put the money for grocery shopping first. It's really impossible to pawn my coat first. |
|  | (Mrs. Sarti grumbles. Galileo begins to calculate on paper. Andrea enters with the apple.) |
| Galileo | Andrea, why don't you eat the apples? |
| Andrea | I want to use this apple to show my mother, let her know that I am also turning. |
| Galileo | I want to tell you something, Andrea, please don't tell anyone. |
| Andrea | Why? |
| Galileo | The government forbids talking about this. |
| Andrea | But isn't this the truth? ! |
| Galileo | But the government banned it. Something we think is true, but can't prove yet. Even the theories of the great Copernicus have not yet been proven. It's just an assumption. Just like when you hear a baby crying downstairs, you will think there is a baby downstairs; but until you actually verify it with your own eyes, it is just a hypothesis. Some hypotheses are easy to prove, while others require several generations and a lifetime to verify. |
| Andrea | Mr. Galileo, I also want to be a physicist when I grow up. I also want to verify. |
| Galileo | In our field, there are too many problems that need to be clarified. (He goes to the window and holds up the lens to look out of the window) Andrea, use this to look outside. |
| Andrea | My gosh, everything is getting so close. The steeple of the church, the bell tower, and even the words carved on the wall are clear! |
| Galileo | The good days to come will depend on it. |
|  | |
| Andrea | Galileo presented his "new invention" to the Republic of Venice: his improved telescope capable of magnifying ten times. This invention not only allowed him to raise his salary, change into new clothes, and lead his family to live a good life, but also made him limelight in the political and academic circles of the Republic. However, when others used his new invention to focus on distant battlefields and young women taking a bath on the terrace, Galileo had greater ambitions: he aimed the telescope at the starry sky.  On January 10, 1610, Galileo explained to his old friend Sagredo in his laboratory at home: there is no difference between "heaven" and "earth". |
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| Scene 2 Galileo's laboratory in his home | |
|  | (Late at night. Galileo and his good friend Sagredo are wrapped in thick coats, standing by the telescope) |
| sagredo | (Looking through the telescope, in a low voice) The edges of the crescent are jagged and rough. At the edge of the dark side, many points of light began to appear one by one, until they all converged into one bright area. |
| Galileo | How do you explain these bright spots of light? |
| sagredo | No explanation is possible. |
| Galileo | can be explained. Those are some mountains. |
| sagredo | on a star? |
| Galileo | Exactly. At first the sun only reaches the top of the mountain, but as it gradually rises, the surrounding hillsides and valleys are also fully illuminated. |
| sagredo | But this runs counter to all the theories of astronomy for two thousand years. |
| Galileo | That's the way it is. What you see, no one has ever seen but me. You are second. |
| sagredo | However, just as the earth cannot be a star, the moon cannot be a land with mountains and valleys. |
| Galileo | Of course the moon can be the earth with mountains and valleys, and the earth can also be a star. It is just an ordinary celestial body, one of thousands of celestial bodies. Look again, is the dark side of the moon pitch black? |
| sagredo | no. As I was watching, there was a faint gray light. |
| Galileo | What kind of light could this be? |
| sagredo | What? |
| Galileo | This is the light from the earth. |
| sagredo | Nonsense. There are mountains, forests, rivers, lakes and seas on the earth! They are just cold objects; how can they emit light? |
| Galileo | The earth will shine like the moon. Because both stars are illuminated by the sun, they glow. Seeing us from the moon is exactly the same as we see the moon. Sometimes the moon looks to us like a sickle, sometimes it is half round, sometimes it is full, and sometimes it is completely invisible. |
| sagredo | So there is no difference between the moon and the earth? |
| Galileo | Obviously so. |
| sagredo | Less than ten years ago, a man was burned alive in Rome for insisting on this statement. His name is Giordano Bruno. |
| Galileo | good. This is what we have seen with our own eyes. Keep your eyes on the binoculars, Sagredo. What you see right now is this: there is no difference between the celestial bodies and the earth. Today is January 10, 1610. Humanity will write in the annals of history: Heaven, abolished. |
| sagredo | terrible. |
| Galileo | I have another discovery that may surprise you even more. You are now looking at the milky white glow of the Milky Way Nebula. Tell me, what is it made of? |
| sagredo | There are stars, countless stars. |
| Galileo | Orion alone has five hundred stars. These are the thousands of worlds, the unreachable worlds that the man who was burned spoke of. He expected them, but never saw them! |
| sagredo | However, even if the Earth is indeed a star, there is still a long way to go before confirming Copernicus' theory that the Earth revolves around the sun. After all, there are no other stars in the sky orbiting another star; and the moon is always orbiting the earth. |
| Galileo | This is where it gets interesting. You look over there at Jupiter, and there are four little stars next to it. After many days of observation, I found that they were revolving around Jupiter, and their trajectories broke the limitation of the spherical body. This proves that there is no spherical body at all, and also there is no support in the universe! This is another sun! |
| sagredo | Are you crazy? Don't you really understand what the consequences would be if what you saw was real? Are you still going to run into the street and shout: "The earth is just an ordinary planet, not the center of the universe at all"? |
| Galileo | That's right, people's imaginations were all wrong before. The vast and endless universe does not revolve around our tiny earth at all. |
| sagredo | Well, let me ask you, where is God? |
| Galileo | What do you mean? |
| sagredo | According to your theory, the earth is just an ordinary star among many stars. Where is God then? |
| Galileo | you ask me? I'm a mathematician, physicist, astronomer, but not a theologian! |
| sagredo | But you are human first. Let me ask you, where is God in your theory of the universe? |
| Galileo | In our hearts, or nowhere. |
| sagredo | Same as the man who was burned said? |
| Galileo | Yes, as the man who was burned said! |
| sagredo | He was burned to death for this! He had been dead for less than ten years! |
| Galileo | Because he couldn't prove anything at the time. Because he just sticks to that statement. |
| sagredo | Galileo, I always thought you were a wise man. For seventeen years in Padua and three years in Pisa, you taught Ptolemy's cosmology to hundreds of students. This doctrine is affirmed by the Bible and is the foundation of the church. But know, You, like Copernicus, think Ptolemy was wrong. See how many students you have taught wrong! |
| Galileo | Because I couldn't prove anything at the time. |
| sagredo | Do you think it makes any difference? |
| Galileo | What a difference, Sagredo! I believe in people, I believe in people's reason! Without this belief, I wouldn't even have the strength to get out of bed in the morning. |
| sagredo | But I don't believe it! My forty years of experience in my life have repeatedly told me: people are irrational! You point them to a comet with a red tail, and it will only stir fear in their ignorant hearts and send them running about. They are short-sighted and feel that nothing exists that cannot be seen with the naked eye, let alone the stars that are far away in the sky! |
| Galileo | That's a big mistake, it's prejudice. I don't understand, since you think so, how can you still love science? I believe that people can accept reason, and I believe that reason has a gentle and lasting power over people. They cannot resist this force forever. Just like I let a stone fall now (he let go of his hand and let a stone fall to the ground) , no one will deny the fact that he saw it with his own eyes and say that the stone did not fall. This is a good start, the beginning of thinking. Thinking is one of the greatest pleasures of human beings. |
|  | (The bells for Matins begin to jingle. Galileo's daughter, sixteen-year-old Virginia, wears a coat and holds a lantern.) |
| Virginia | Good morning, Dad. |
| Galileo | Virginia, why are you up so early? |
| Virginia | I'm going to pray with Mrs. Salti. Ludovic went too. How was it last night, papa? |
| Galileo | Clear as water. |
| Virginia | Can I have a look with this? |
| Galileo | What are you looking at? This is no kid's toy. |
| Virginia | all right dad. |
| Galileo | Besides, this package is about to disappoint some people. It won't be long before you hear people all over the city talking about the three copper coins sold in the street, and that the Dutch invented it first. At that time, those bureaucrats in the university will definitely come to trouble me again. |
| Virginia | Have you seen nothing new in the sky with this telescope? |
| Galileo | none of your business. It's just a few fuzzy dots next to a big star, and I need to figure out a way to get people to pay attention to them. (Passing his daughter to Sagredo) Maybe I'll name them the Medici constellations, to please the Grand Duke of Florence. (to Virginia) Virginia, would you like it if we moved to Florence? I have just written to them asking if the Grand Duke would like to employ me as court mathematician. |
| Virginia | (with joy) In the court? |
| sagredo | Galileo! |
| Galileo | Old friend, I need my free time to prove a lot, and I want hearty dishes. With this job, I don't have to take in any more students, and I don't have to lecture them on Ptolemaic platitudes anymore. I would have time, a lot of time, to do research, to prove my hypothesis. The material I have now is far from enough. Not even one evidence that other celestial bodies orbit the sun. So I can't make my hypothesis public yet. But one day I will prove it to everyone from Mrs. Salti to the pope. My only worry now is that the court will not accept me. |
| Virginia | They will accept you, Dad, and all your new discoveries. |
| Galileo | Go to your morning prayers. |
|  | (exit Virginia) |
| Galileo | Come and help me see how this letter is written. (Hands Sagredo a letter) |
| sagredo | (Reading the end of the letter aloud) "You are the rising sun that will surely shine on this era. I long to be by your side more than anything else." The Grand Duke of Florence is only nine years old this year. |
| Galileo | I know. You probably think what I wrote is too humble, right? You also know that I'm not good at pleasing others, but I still have to work hard. I despise the ignorant, but I also despise the incapable of eating. |
| sagredo | Galileo, don't go to Florence. |
| Galileo | why are you not going? |
| sagredo | It's the territory of the monks. |
| Galileo | There were famous scholars at the court of Florence. |
| sagredo | They're just a bunch of dogs. |
| Galileo | Monks are also human beings, and they can also be conquered by reason. Copernicus wanted people to believe his numbers, I just want them to believe their eyes. When truth cannot defend itself, it must turn to the offensive. I would take them by the neck and drag them to the telescope so they could see for themselves. |
| sagredo | Galileo, you are on a dire path. Everyone who sees the truth is unhappy, and everyone who trusts in human reason is blind. Can't you see that you are heading towards destruction step by step? How can those powerful people let a person who holds the truth do whatever he wants even the truth is about the far away stars?  You think the pope can hear you said about your truth and point out he was wrong? No, all he will hear is the fact that you pointed him out that he was wrong! Do you think he would calmly write in his diary: "On January 10, 1610, the heavens were abolished"? Although with the truth in your head and the telescope in your hand, but you have the whims to leave the Republic of Venice and jump into the trap of princes and monks! You doubt everything scientifically, but trust the evil intentions of these people like a child. You, Aristotle, believe in the Grand Duke of Florence. When you use a telescope to observe new planets, I seem to see you standing on a burning pyre; when you say you believe in the power of reason, I seem to smell the smell of burnt human flesh. I love science, but I love you more, my friend. Galileo, listen to me don't go to Florence! |
| Galileo | As long as they accept me, I will definitely go. |
|  | (Brief black scene. Lively market sound effects and music. At the scene change, a projection of the last page of Galileo's letter appears in the background:  " When I bestow the noble name of Medici on the new star I have discovered, I know that this name has ascended to the stars to praise gods and heroes. In this case, the noble name of Medici will make this star last forever In the memory of the world, will never be extinguished. Please remember that I am one of your most loyal and most obedient servants. It is a great honor for him to be born to be your servant.  You are the rising sun that will surely illuminate this era, and I long to be by your side more than anything else.  Galileo Galilei" |
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| Scene 3 Galileo's home in Florence | |
| (Mrs. Sarti is in Galileo's living room, preparing to receive guests. Andrea sits arranging the horoscope. If the scene changes too long, the following monologue by Mrs. Sarti can be started in the middle of the scene.) | |
| Mrs Salti | Ever since we arrived in this full of praises’ Florence, nodding has never stopped. People from all over the city came to see this tube, and mess the floor to make me clean itbut what good did it do! There is some truth in these discoveries, and the priests should be the first to know about it. For a priest I served, the books in the study were piled up to the ceiling, and the dust was always there flowing like snows. The old man sat and studied science all day long and even had two big sores on his buttocks. What could a man like that not know.  Today's big visit is sure to be ugly, and it will make me ashamed to see the milkman tomorrow. I've made up my mind, and persuaded Mr. Galileo to treat them to a big meal, a big piece of lamb, and show them his tube. He doesn't! (imitating Galileo) "I have something better for them." |
|  | (There is a knock on the door downstairs) |
| Mrs Salti | (looks out the window) God, they're already here. Andrea, get up, the adults are here. I'm going to open the door for them. |
|  | (Mrs. Sarti opens the door. The first to enter is the Grand Duke Cosmo de' Medici, a boy of nine years. Immediately after are two squires. Next come Galileo and a courtier. A mathematician, a court philosopher. Before Galileo begins to speak, the coats are handed to Mrs. Sarti, and the tea is offered by her, and the conversation is carried on at the same time) |
| Cosmo | I want to look through the telescope. Where is the telescope? |
| Andrea | In the lab, I'll get it! (Down) |
| Galileo | Allow me to explain a little to you while my assistant goes to fetch the telescope. His Highness no doubt knows that for a long-time we astronomers have had great difficulty in calculating. According to the ancient Ptolemy theory, the movement of the stars has extremely intricate laws. However, after we apply these rules to calculate, we still cannot accurately predict the position of the stars. And then there are the motions of the stars, which Ptolemy has no explanation for at all. Several small objects I recently discovered near Jupiter seem to have this property. (Andrea enters with the telescope) What do you think of observing Jupiter's satellite group, the Medici constellation, now? |
| Andrea | (Goes to Cosmo and hands the telescope) Please, please. |
| philosopher | (stops Cosmo, who is going forward) Thanks, my boy. I'm afraid it's not that simple. Mr. Galileo, before examining your famous telescope, we would like to invite you to a scholarly debate. The question is: Is it possible that such a planet exists? |
| mathematician | It's just a formal debate. |
| Galileo | Wouldn't it be better if you just use a telescope to see for yourself and draw your own conclusions? |
| Andrea | (hands the telescope to the mathematician) Please, please. |
| mathematician | (pushes the binoculars away) Sure, sure. Mr. Galileo, according to the views of the ancients, it is impossible for stars to exist around other centers than the earth, and it is impossible for stars to exist without pillars in the sky. You should know this, right? |
| Galileo | Yes. |
| philosopher | Leaving aside the possibility of the existence of these stars, which the mathematician (bows to the mathematician) seems to doubt deeply; as a philosopher, I would like to ask with great humility: are such stars necessary? |
| Galileo | If your highness sees through this telescope stars that are neither possible nor necessary, how do you explain them? |
| mathematician | Look at it this way: If your telescope shows something that can't exist, then it must be an unreliable telescope. |
| Galileo | What do you mean by that? |
| mathematician | You think that in the highest sphere of the immutable sky, the stars can hover in the air. Mr. Galileo, it may be helpful if you tell us what motivated you to make this hypothesis. |
| philosopher | Tell us about your motives, Mr. Galileo! |
| Galileo | motivation? If I prove that this phenomenon exists by looking at the starry sky, what motivation is needed? Gentlemen, this academic debate is ridiculous. |
| mathematician | Without trying to get you more excited, we must say that what's in your telescope may not be the same thing as what's in the sky. |
| philosopher | This is the most polite way of saying it. |
| Galileo | Are you accusing me of lying? |
| philosopher | We never thought about it that way! Especially in front of His Highness, he would not do so. |
| mathematician | Your instrument, we may liken it to your own son, or your adopted son. Its workmanship must be very ingenious. |
| philosopher | And we are quite sure that neither you nor anyone else who doubts the existence of these stars would dare to adorn them with the noble names of princely houses. |
|  | (Everyone turns to the Grand Duke and bows) |
| Cosmo | (reviews the squire) Is something wrong with my star? |
| squire 1 | Your Highness's stars are all fine. Gentlemen are just arguing about whether they really do exist. |
|  | (Awkward silence) |
| squire 2 | Can you see every star in Ursa Major with this tube? |
| Andrea | Of course, even Taurus can see it clearly. |
| Galileo | Gentlemen, why not see for yourself? |
|  | (Andrea offered the telescope again, but was pushed away by philosophers and scientists one by one) |
| philosopher | sure. |
| mathematician | sure. |
|  | (Silence. Andrea turns abruptly, sternly, to leave. Mrs. Sarti grabs him.) |
| Mrs Salti | What are you doing? |
| Andrea | These people are all fools! (He breaks free and runs off the field) |
| philosopher | uneducated child. |
| squire 1 | Your Highness, gentlemen, I take the liberty to remind you that the grand ball will begin in three quarters of an hour. |
| mathematician | We don't have to beat around the bush anymore. In any case, Mr. Galileo must face the facts squarely. Can his Jupiters and satellites break through the crystal sphere? |
| Galileo | You will be surprised to hear that there is no such thing as a spherical body. |
| philosopher | Bro, every textbook will tell you that spherical bodies exist. |
| Galileo | Then we need new textbooks. |
| mathematician | Your Highness, my esteemed colleague and I believe in only one authority, the holy Aristotle. |
| Galileo | Gentlemen, it is one thing to be convinced of the authority of Aristotle, and quite another to see and feel the facts. According to Aristotle's theory, there are crystal spheres in the sky, so there cannot be some kind of movement for the stars to break through these spheres. However, if such a movement is confirmed to exist, what conclusions can be drawn? Maybe it will make you clear understand that it doesn't have such a thing as a spherical body at all. Gentlemen, I humbly beseech you, believe your eyes. |
| mathematician | Mr. Galileo, you may think this is a cliché, but I often review Aristotle's works on weekdays. I can assure you: I trust my eyes when I read. |
| Galileo | I have seen the attitude of teachers in various disciplines . They didn’t see the truth but the book. I let them see my records, they just say nothing; I asked them to see them with binoculars, them just say what Aristotle says. You must know that Aristotle did not have a telescope! |
| philosopher | If you are here insulting Aristotle, an authority admired by generations of scientific and ecclesiastical elders, I feel that it is entirely superfluous to continue the discussion. I am against unrealistic discussions. End of speech. |
| Galileo | Truth is a product of the times, not authoritative. Our ignorance is boundless, why should we give up this little territory of knowledge? Now we've got a new instrument please use it to see a small part of the universe. |
| philosopher | Your Highness, Ladies and Gentlemen, I just want to know where Mr. Galileo intends to lead us. |
| Galileo | I don't think that as scientists we should think about where the truth will lead us. |
| philosopher | (brutally) Mr. Galileo, the truth will lead us wherever possible! |
| Galileo | My lord, in Italy every night there are telescopes everywhere looking at the sky. Even ordinary people on the street understand the simplest truth: as long as you open your eyes, you will find many things! You are obliged to prove it! Gentlemen, we should not defend shaky doctrines! |
| philosopher | Oops! |
| Galileo | Your Highness! You should check out the builders, draftsmen, and mechanics in the Armory. They haven't read much, but they believe in the facts they see with their own eyes. They are inventing new ways every day!  Or go and see the sailors in the shipyard. A hundred years ago, they left our shores and sailed for unknown shores. They trust their senses and have no fear of being led somewhere! |
| philosopher | Now I understand: Mr. Galileo, you will find admirers in the shipyard. |
| squire 1 | I am afraid I must warn you, Your Highness, that this instructive conversation has gone a little too far. You have a little rest before the court ball. |
|  | (The Grand Duke bows to Galileo on his cue. The court then begins to rise) |
| Mrs Salti | (Stops the Grand Duke and holds a plate of pastries) Your Highness, let's have a snack. |
|  | (The attendants lead the Grand Duke to exit) |
| Galileo | (Chasing) In fact, gentlemen, you only need to use a telescope to see it! |
| squire 2 | Regarding your proposition, Your Highness will definitely consult the greatest astronomer of our time, the chief astronomer of the Pontifical Academy, Clavius. |
|  | (Short dark scene. At the beginning of the scene change, a mixed cut of news reports about the epidemic appeared in the background projection. Virginia wore a mask and held a microphone as a reporter to speak the following lines. There were many residents on the street dragging their luggage on their way .Ludovic enters at the end and interrupts her report) |
| Virginia | Breaking news, breaking news! Just last night, there were many positive cases of plague in our city, among which there were five severe cases and two deaths in the old city. Experts in infectious diseases at the University of Florence said that the plague virus is extremely contagious and has a wide range of transmission routes, including biological transmission, contact transmission, and droplet transmission. At present, the Public Health Department of our city is actively responding and carrying out prevention and control work. Citizens are requested to self-isolate at home, avoid gathering in crowded public places, wear masks consciously, and reduce all unnecessary going out. A reporter from Florence 1 for you ... |
|  |  |
| Scene 4 Galileo's courtyard and the street at the entrance | |
| Ludovic | Virginia, why are you still dawdling here. We have to hurry, I heard that this street will be blocked soon. |
| Virginia | No, I have to wait for Dad and the others. They are still packing. |
|  | (Enter Galileo, Mrs. Sarti and Andrea with some suitcases and packages) |
| Galileo | (To Ludovic) All public transportation has stopped, the Grand Duke has prepared a car for me, you take them away first! I haven't packed up my experiment records yet, so I'll leave after packing up. |
| Andrea | Why are you leaving? If you don't tell me why, I won't leave. |
| Mrs Salti | There's plague, my boy. |
| Virginia | Dad, we won't leave if you don't leave. Once you pack up the materials, there is no end to it. |
|  | (car horn honking) |
| Mrs Salti | Our car has arrived! |
| Galileo | You have to be sensible, Virginia. If you don't get in the car, the driver can't wait. The plague is no joke. No one wants to be locked in the city. |
|  | (Mrs. Sarti pulls Andrea, Ludovic pulls Virginia) |
| Virginia | (resisting, to Galileo) You must come! |
| Mrs Salti | (Get on after a while, angrily) Sir, if you don't leave, the driver won't wait! |
| Galileo | Mrs. Sarti, I don't think I'm going. My notes are too messy, if I don't spend one or two nights continuing to organize, these three months of my hard work will be destroied. Besides, these people from the government hide everything and only let everyone know at the last minute. Maybe this kind of infectious disease is everywhere now, so it will be to stay here. |
| Mrs Salti | Mr. Galileo! Are you crazy? Come with me. |
| Galileo | You and Virginia go first, I will come later. |
| Mrs Salti | No, no one can leave when the car leaves. (the sound of the car is heard) They seem to be leaving? I'm going to stop them now. (Down) |
|  | (Galileo paces back and forth. Mrs. Sarti returns, pale, without her bag) |
| Galileo | Why are you back again? Are you not afraid that they will leave you and take your children away? |
| Mrs Salti | They are gone. They'll take care of Andrea. But who will cook for you after I leave? |
| Galileo | are you crazy? You're staying in town just to cook for me! (Picks up the experiment record file) Mrs. Sarti, don't think I'm stupid. I must never give up observing. I have powerful enemies, and I must gather evidence for my thesis. |
| Mrs Salti | You don't need to explain. A wise man would never do this. |
|  | (Briefly dark scene. Mrs. Sarti exits. Loud firecrackers. Some mixed-cut videos of the epidemic are projected in the background. Two soldiers enter, seal Galileo’s courtyard door, and exit. Several days later, Galileo pushed open the courtyard door, went to the street at the door, looked around, saw a woman drying clothes, and walked over) |
| Galileo | Hello, may I ask ... |
| women | Don't get any closer, just stand there and say it. |
| Galileo | Oh, sorry, I forgot about that. Do you know where I can buy milk? My housekeeper has gone out and hasn't come back yet, and I've been hungry for two days. |
| women | (Shakes head) Nearby shops are closed, and there are only a few open in the city center. |
|  | (The sound of firecrackers is heard again in the distance) |
| Galileo | Where is this going on? Isn't it a festival to put a cannon stick? |
| women | They wanted to use this movement to drive the cloud away, saying that there were plague germs in the cloud. |
|  | (Galileo laughs) |
| women | You are still laughing. The plague caused us all to feel insecure, and the measures we took were intensified. You don't know, a few days ago, a house caught fire in the street behind, but no one dared to fight the fire because of the suspicion of plague in his house. |
| Galileo | They always do! Such is the system of this government. If something goes wrong, they can chop us off like a diseased branch on a tree. |
| women | Don't say that, they can't do anything about it. |
|  | (Two soldiers with spears enter the field, see Galileo standing in the street, and run over immediately) |
| soldier 1 | You, go back to your room at once! (Uses a spear to force Galileo into the courtyard gate, and then blocks the gate) |
| soldier 2 | (to the woman) And you, how dare you talk so close to him, do you know that someone in his family has the plague? You also go home for me, and your home has to be sealed. |
| women | You listen to me, don't seal it! My husband is still in the city, how can he go home if he is banned? You beasts! Beast! ( Soldier 2 forces her to end) |
| Galileo | (to Soldier 1) Wait, don't go yet. Have you seen my housekeeper? I couldn't find her early this morning, she probably ran away from home last night. |
| soldier 1 | Your housekeeper has fallen by the side of the road. She probably knew that she was sick, so she ran out of the house. I'm not afraid of death! |
| Galileo | Do you know how she is now? |
| soldier 1 | Who knows. Some people say that such a person will be sent directly to the cemetery. (turn down) |
| Galileo | Sir, you can't just leave like this. I was sealed in the house and had no food at all. You can't starve people to death! Hello! Hello! |
|  | (Andrea stands in the doorway with tears streaming down her cheeks) |
| Galileo | Andrea! How did you come back? |
| Andrea | I came early in the morning, and I knocked on the door, but you didn't open it. I was told ... |
| Galileo | Didn't you leave by car? |
| Andrea | I left by car, but I escaped halfway. I heard that my mother had been sent to a convent, so I went there to find her. But they wouldn't let me in, saying she was very sick. |
| Galileo | You came back after running so far? It's been three days since you left here. |
| Andrea | Don't be angry that it took me so long to come back. They also arrested me once in the middle. |
| Galileo | Just don't cry. Listen to me, these days I finally figured it out a little bit, can I tell you? (Andrea nods while sobbing) Be sure to listen carefully, or you won't understand. Do you remember that I showed you the planet Venus? Remember, it was like the moon! Sometimes it is semicircular, sometimes it resembles a crescent. Do you have any ideas? (Andrea shakes her head) With a ball and a lamp, I can show you all this. This proves that the planet itself does not emit light, and it rotates in a circular orbit. How amazing is it? |
| Andrea | (sobbing) Sure, it must be true. |
| Galileo | I should have kept her. |
|  | (Andrea is silent) |
| Galileo | But then again, if I leave that day, nothing like this will happen. |
| Andrea | Now can you prove your discovery to them? |
| Galileo | I have gathered all the supporting materials. As soon as the plague was over, I set off for Rome to show them. |
|  | (Enter a masked man with a pole and barrel) |
| masked man | Hello, old man, your meal is here. (Use a long pole to carry the bread to Galileo, and turn to leave) |
| Galileo | Are you coming tomorrow? |
| masked man | (shrugs) Who knows today what will happen tomorrow? |
| Galileo | Excuse me, come back next time, can you send me a book I need for work? |
| masked man | (Laughs muffled.) As if a book could solve any problem. You will be content with bread. |
| Galileo | This boy is my student, and he will give you the books I want. That's Mercury's periodic table. Andrea, can you go to school and get it? |
|  | (The masked man has left) |
| Andrea | I will get it for you, Mr. Galileo. |
|  |  |
|  | ( Brief dark scene. When the stage changed, the philosopher and mathematician walked to the front area of the stage laughing and having the following dialogue) |
| philosopher | So stupid, so stupid! (Laughs) Mr. Mathematician, if you say there are ghosts in the world, some people will doubt it. But Mr. Galileo said that the earth is spinning like a pinball in a sewer, and some people believe it! |
| mathematician | (with a funny look) Whoops, I'm dizzy. Allow me to catch you, or I'm going to fall. (He pretends to stagger, grabs the philosopher, and holds his heels) |
| philosopher | (also pretending to be dizzy) Yes, the earth is drunk again today, this old fool! (he catches mathematicians too) |
| mathematician | Venus, the goddess Venus, is already hanging obliquely in the sky, I only see half of her buttocks, help! |
|  | (They both laugh out of breath and at the same time pretend to be struggling to keep from being thrown from the stormy boat) |
| philosopher | As long as it doesn't throw us on the moon! Good brother, people say that there are sharp peaks on the moon! If it falls on it, it will definitely be stabbed to death! |
| mathematician | Grab the earth with your feet! |
| philosopher | Don't look down, I'm dizzy! |
|  | (They both laugh until they fall to the ground. At this moment, the front area of the stage suddenly goes dark, and the chief astronomer Clavius is projected in the background.) |
| clavius | Dear scientists, believers, and clergymen, I solemnly declare to you: I, Clavius, the chief astronomer of the Pontifical College, after several days of research and observation, have come to the final conclusion: Mr. Galileo's Doctrine meets fact. |
|  |  |
| Scene 5 The House of Cardinal Bellarmine | |
|  | (Heavy ball music plays, and the scene cuts to the palace of Cardinal Bellarmine in Rome. In the background, several masked couples dance, including Virginia and Ludovic. Galileo sits in the corner Drinking wine. The guests came one after another. Ludovic walked to the front area and said the following lines) |
| Ludovic | March 5, 1616! Virginia and I have just been betrothed, and we have been honored by her father, Mr. Galileo, to attend a great ball given by the Cardinal of Rome at his palace. We had a few drinks and danced and danced on the dance floor. Virginia starts blushing just like the blooms at spring... As for our Mr. Galileo, he seemed to have had less luck that day. People seems cheer for him but they are actually aiming on another thing. |
| Virginia | Ludovic! Don't leave me, I don't want to dance with others. |
| Ludovic | Your dress is so beautiful today. |
| Galileo | (comes over) I agree. |
| Ludovic | The Romans are talking about you. From tonight, people will be talking about your daughter. |
| Galileo | I also think that spring in Rome can make people look beautiful. I’m afraid even me seems like a fat handsome man. You two go and play! |
| Virginia | (follows Ludovic to the back area, and runs back) By the way, Dad, today I went to have a haircut, and the barber heard that I am your daughter, so he cut it for the other four young ladies and cut mine first! (Down) |
|  | (Enter two cardinals, each with a hand mask) |
| one of the crowd | Cardinal Bellarmine and Barberini have arrived! |
| Barberini | Nice to meet you Mr. Galileo. Welcome to Rome. Bellarmine, this gentleman is not ordinary. Presumably you should have heard "the sun rises from the east" and "the sun sets to the west" . Even the sun is known to obey its order and to revolve around us, but Mr. Galileo seems to have a different idea. |
| Galileo | Two lord cardinals, when I was so little (gesturing with hand), once stood in a boat and shouted: The banks are moving! —I know now that the banks are still and that the boat is moving. |
| Barberini | You such a cunning sophist Don't say the starry sky is spinning but talk about the boat and the riverbank. I’m afraid that you're trying to say is that the earth is spinning and it's invisible! really cunning. Your discovery of the moons of Jupiter is a tough nut to crack for us astronomers. I should confess to you, Bellarmine, that I too have read some books on astronomy, and once I started I couldn't put it down. |
| Galileo | I have heard that you have a strong interest in science. |
| Barberini | Galileo, my friend, don't you think you astronomers always oversimplify astronomy ? You imagine that the motion of the stars is simply moving along a circular or elliptical orbit with a constant speed, because this is in line with the way of thinking of your mind. But what if God is willing to let his stars go like this (drawing a non-uniform, very complicated orbit in the sky with your finger)? What will you figure out? |
| Galileo | My lord Cardinal, if God created the world in such a way (drawing the orbits like Barberini), he will also create our minds (drawing the orbits again) in such a way that such a mind sees these orbits as simple orbits. I believe in sanity. |
| Barberini | I don't think reason alone is enough. Why don't you speak anymore. (to Bellarmine) He's too polite to sneers at me thinking I'm not good enough. (laugh)  Reason, my friend, will not go far. Looking around, we see nothing but error, sin and weakness. Where is the truth? |
| Galileo | (indignantly) I believe in reason! |
| Bellarmine | If you think about it, isn't the world full of ugly, barbaric things? Think of the farmers who beat the farmers with whips! Think of those whipped peasants who kiss the feet of their whippers! |
| Galileo | how can you say that- |
| Bellarmine | There are some laws and laws in this world that we cannot understand. We say that their meaning is for the High God to explain; we say that everything that happens is planned according to a higher purpose. And now you're blaming God, as if he doesn't understand how the stars work, and you do. Are you saying that God didn't study astronomy carefully enough before he wrote the Bible? |
|  | (Galileo is silent) |
| Bellarmine | You are now silent. Mr. Galileo, the Copernican theory holds that the sun is stationary and is the center of the universe, while the earth is rotating and is not the center of the universe. The Inquisition has decided tonight that this ridiculous doctrine is heresy of faith. I have been ordered to advise you to abandon this doctrine. |
| Galileo | Excuse me, what did you say? |
| background crowd | Mr. Galileo, the Copernican theory holds that the sun is stationary and is the center of the universe, while the earth is rotating and is not the center of the universe. The Inquisition has decided tonight that this doctrine is heresy of faith. I have been ordered to advise you to abandon this doctrine. |
| Galileo | But what about the facts I observed? The astronomers of Rome Academy all admit that my observation records are correct. |
| Bellarmine | With satisfactory wording, I affirm you with the greatest respect. |
| Galileo | Then the satellites of Jupiter, the profit and loss of Venus ... |
| Bellarmine | The meeting of cardinals has already made a decision. These minutiae are out of the question. |
| Galileo | That said, all further scientific research ... |
| Bellarmine | Absolutely, Mr. Galileo. One of the credos of the church is: We don't understand, but we can study. You are free to approach this doctrine as a mathematical hypothesis. Science is the most beloved biological daughter of the Church, Mr. Galileo. None of us really thought you were going to destroy people's trust in the church. |
| Galileo | (angrily) Keep asking for trust, trust will dry up! |
| Barberini | Oh, is it so? (pats Galileo on the shoulder and laughs loudly. Then stares at him sternly, but says kindly) Please don't throw the baby out with the bathwater, my friend. Neither do we. We need you more than you need us. |
| Bellarmine | We wish to introduce you, the greatest Italian mathematician, to Monsieur Inquisitor. (The Inquisitor appears on the other side of the proscenium) He will pay you the highest respect. Well, Barberini, we've said enough, it's time to greet the other guests. |
|  | (He and Barberini put on their masks and turn away. Bellarmine sees Virginia, turns back to Galileo and says the following lines) |
| Bellarmine | By the way, congratulations on your daughter's engagement. You should also think about her, what a wonderful time. (Down) |
|  | (Galileo stares blankly at his daughter and the people at the ball, the light gradually focuses on the judge) |
| Judge | In the name of Pope Paul V and of the Holy Inquisition, I declare the following resolution on March 15, 1616, to include Copernicus's On the Revolutions of the Celestial Spheres in the Catalog of Prohibited Books, and to prohibit Galileo Galilei taught, advocated , or defended Copernican's heliocentric theory of astronomy, either orally or in writing . If you dare to violate it, the religious court will definitely pursue it with impunity. |
|  | (A heavy drum beat. Dark field. **Intermission** ) |
|  |  |
| Scene 6 Galileo's home in Florence | |
|  | (Andrea, who has grown up, comes to the stage and speaks the following lines. Virginia and Mrs. Sarti are sewing dowry on one side, and some experimental instruments are placed on the other side. Galileo and Sagredo are preparing the experiment . ) |
| Andrea | After the "Ban of 1616", Mr. Galileo's research on the heliocentric theory died down, and he was silent for eight years. What do you think he changed to research in the past eight years? Mechanics, floating objects, all theories, experiments not directly linked to astronomy. "Safe" experiments. The old man keeps his tail between his legs and plays a safe role, but we students are going to follow suit. Think about it, what age is it? We live in a new era of innovation and progress, in the seventeenth century. Why do we "post-95s" still want to learn Aristotle's old-fashioned stuff! (He returns to the lab area to help Galileo pack up, the lights switch to the women's side) |
| Virginia | I love needlework like dowry. This one was for a banquet; Ludovic liked such entertainment. But it must be sewn carefully, and his mother can pick out a thread that is not sewn properly. And she didn't like the books Dad wrote. |
| Mrs Salti | He hasn't written a book for several years. |
| Virginia | I think he probably realized that he was wrong. Recently a learned priest taught me a lot about astronomy. Those stars are too far away from us. |
| Andrea | (Write the lab project for the day on the blackboard) "Thursday afternoon. Floats" - Ice cubes again; bucket of water; scales; nails; Aristotle's book. (He and Galileo started to get the materials needed for the experiment) |
| Mrs Salti | I want to talk to you about your marriage, Virginia. You're so young, you mom passed away too soon and dad only knows how to deal with ice cubes all day long. I advise you not to ask him about marriage anyway, he will only say some nasty things, and he will say them for a week, and he will say them even during meals. he is shameless and don’t care about your young people and. You should seriously think about the future. I'm a rough man who has never been educated, and I don't understand anything, but I advise you not to do such a serious matter in a daze. Really, I think you should go to the university, find a real astronomer, let him read your fortune, and that you will know your destiny. why are you laughing? |
| Virginia | I have been there. |
| Mrs Salti | (curiously) What did he say? |
| Virginia | I have to pay attention for three months, because the sun is now close to Capricorn; after that, I will have a very good husband's family, and I will "keep the clouds and see the moon". |
| Andrea | I recently read a paper by Dutch scientists on sunspots. He thought it was a constellation passing between the earth and the sun. Do you find this statement problematic? |
|  | (Galileo declined to answer) |
| Andrea | In Paris and Prague, it was thought to be a mist from the sun. |
| sagredo | Pooh. (drops a balance pan on the ground) |
| Andrea | It appears Sagredo has his doubts. |
| sagredo | Please, don't drag me into this. I just snorted, that's all. |
| Andrea | There's nothing wrong with doubting, and doubting itself is fun. I'm also wondering why? (Seeing that Galileo didn’t respond, continue) For the past two weeks, whenever it’s sunny, I’ve climbed to the attic, squatted under the wooden roof, and observed the tiny rays of light coming in through the cracks in the roof. As long as you catch it with a piece of white paper, you can see the upside-down image of the sun. I have seen a little black spot as big as a fly, and as indistinct as a cloud; and it moved. Why don't we study sunspots, Mr. Galileo? |
| Galileo | Because we're working on floaters. |
| Andrea | Your inbox is full of emails. All of Europe is asking for your opinion. Your reputation is so prominent, how can you continue to remain silent? |
| Galileo | It is because of my silence that Rome allows me to be famous. |
| sagredo | But the price of your continued silence is too high! |
| Galileo | The price I pay for not being silent just like hams under fire, it is too heavy for me. |
| Andrea | You mean sunspots have something to do with that? |
|  | (Galileo does not answer) |
| Andrea | Well, let's go back to these little ice cubes that won't put you in danger. |
| Galileo | Yes, you tell us about our proposition, Andrea. |
| Andrea | We assume that the floating of an object does not depend on the shape, but on whether the object is lighter or heavier than water. |
| Galileo | What did Aristotle say? |
| Andrea | "A flat block of ice will float, but a nail in water will sink. " |
| Galileo | According to Aristotle, why doesn't the ice sink? |
| sagredo | Because it is flat, it cannot separate the water. |
| Galileo | good. (He takes a piece of ice and puts it in the bucket) Now I push the piece of ice down to the bottom of the bucket and let go, what happens? |
| Andrea | It will float. |
| Galileo | right. It seems to be able to separate water when it floats. |
| sagredo | But why can it float on the water? Ice is concentrated water, so it should be heavier than water. |
| Galileo | What if it was diluted water? |
| Andrea | Ice must be lighter than water, or it wouldn't float. |
| Galileo | aha. |
| Andrea | Just like a nail doesn't float on water. Anything lighter than water floats; anything heavier than water sinks. The proof is over. |
| Galileo | Andrea, you have to learn to think carefully. Give me the nail and a piece of paper. Is iron heavier than water? |
| Andrea | Yes. |
|  | (Galileo puts nails on a piece of paper, then places the paper on the water. Static scene) |
| Galileo | What's happening now? |
| sagredo | Nails float! Holy Aristotle, his theories were never tested! (everyone laughs) |
| Galileo | the scientific disciplines is that they always feel rich. The purpose of science is not to open the door to eternal wisdom, but to draw a line from eternal error. This sentence should be written down. |
|  | (Ludovic is in traveling clothes and carrying a suitcase. Virginia runs to him and hugs him) |
| Virginia | Why don't you write me first and tell me you're coming? |
| Ludovic | I just happened to be checking out my family's vineyard around here and certainly couldn't pass up the opportunity to see you. |
| Galileo | (as if nearsighted) Who is this? |
| Virginia | Ludovic. |
| sagredo | Can't you recognize who he is? |
| Galileo | Oh yes, Ludovic. How is your horse? |
| Ludovic | Very good, very good, sir. |
| Galileo | Let's celebrate. Madame Sardi, go and fetch a jug of old wine! Andrea, go and help your mother too. (Exit Mrs. Salti and Andrea) |
| Ludovic | (to Virginia) You don't look very pretty. Country life might be good for you. Mom hopes to see you in September. |
| Virginia | Wait, I'm going to show you my wedding dress! (runs down) |
| Galileo | you sit down. |
| Ludovic | Sir, I heard that there are more than a thousand students in the university attending your class. What research are you currently doing? |
| Galileo | Every day is the same. Have you ever been to Rome? |
| Ludovic | Yes. By the way, just thought I'd tell you - the Dutch talk a lot about sunspots, and my mother appreciates your tolerance for it. |
| Galileo | (without emotion) Thank her for her kindness. |
|  | ( Mrs. Sarti and Andrea bring wine and glasses. They sit around the table.) |
| Ludovic | The events of that February were now the talk of the day in Rome. Clavius expressed concern that, because of the sunspot problem, the question of the Earth's orbit around the sun might be brought up again. |
| Andrea | That's nothing to worry about. |
| Galileo | Is there any news from the Holy City other than expecting me to commit new crimes? |
| Ludovic | The Pope is dying and in danger, of course you already know that? |
| sagredo | oh. |
| Galileo | Who is nominated as heir? |
| Ludovic | Probably Barberini. |
| Galileo | Barberini. |
| Andrea | Mr. Galileo knew Barberini. Cardinal Barberini was a mathematician. |
| sagredo | A scientist sits on the Pope's throne! |
|  | (quiet scene) |
| Galileo | It seems that now they need someone like Barberini who has studied some mathematics! Everything will start to change. Sagredo, I foresee a new era within our lifetimes, an era in which what is said is what is said, what is said, and where there is no need to look forward or backward. |
| sagredo | What are you going to do? |
| Galileo | Restart the study of the earth's rotation around the sun. |
|  | (Andrea, Sagredo started tidying up the experimental table) |
| Andrea | Maybe we'll find that the sun itself is spinning too. What do you think, Ludovic? |
| Ludovic | Why are you so excited? |
| Mrs Salti | Mr. Garlileo, you won't do this again, will you? Damn. |
| Galileo | (to Ludovic) Will you take my drink, or my daughter, instead of trying to persuade me to give up my profession? After all, what does my study of astronomy have to do with my daughter? The profit and loss of Venus will not affect the shape of my daughter's butt. |
| Mrs Salti | Don't speak your yellow accent, I'll fetch Virginia. |
| Ludovic | (stops her) In a family like ours, body shape is not the only indicator to consider when getting married. |
| Galileo | They have not allowed you to marry my daughter for the past eight years, are they still investigating me? |
| Ludovic | My wife must be a figure who can be seen in the village church. |
| Galileo | Do you mean that your farmhands will refuse to pay rent if the landlord's wife is of bad character? |
| Ludovic | In a sense you can say that. |
| Galileo | Andrea, Sagredo, bring the mirror and the screen! We let the image of the sun be projected on it, to protect the eyes; this is your way, Andrea. |
|  | (Andrea and Sagredo go to get the bronze mirror and screen) |
| Ludovic | You promised not to interfere with the earth's orbit around the sun, sir. You signed it in Rome. |
| Galileo | Oh oh! Back then we had a backward pope! |
| Mrs Salti | Back then! The Pope is not dead yet! |
| Galileo | Soon, soon! Lay out the grid on the screen. We must choose a good method. Then we can write them back, don't you, Andrea? |
| Mrs Salti | Galileo, there is something I must say today. I watched my son commit crimes for your "experiments", "theories", and "observations", and there was nothing I could do. You have been against authority, they have warned you once; the highest level of cardinals persuasive persuasion lasted for a while. But two months ago, your bad habits were hard to change, and you started to observe furtively in the attic, and I caught you on the spot! I didn't say much at the time, but I knew it in my heart. I ran out and lit a candle and prayed for you, but there was only so much I could do. Every time you chat with me, you make sense and say that you must restrain yourself because it is a dangerous thing. But after two days of experimenting, you're just as bad as before. If my soul cannot enter the kingdom of heaven because I support a heretic, that is my own business, but you have no right to trample on your daughter's happiness with your feet! |
| Galileo | (displeased) He who does not know the truth is but a fool; but he who knows the truth and calls it a lie is a sinner. Bring the binoculars! |
| Ludovic | I had to take my luggage back to the carriage. |
| Mrs Salti | Your daughter will definitely not be able to bear this. Tell her yourself! (Down) |
| Ludovic | I see you are already ready. You will always be a slave to your own impulses. Please apologize to Virginia for me; I think it would be better for me not to meet her just now. |
| Galileo | Her dowry is at your disposal at any time. |
| Ludovic | goodbye. (Down) |
| Andrea | Please give our regards to your family! |
| sagredo | They commanded the earth to stand still before their magnificent mansions collapsed! |
| Andrea | As long as the pope tramples the people under their feet, they will kiss his feet! |
| Galileo | Even if the new Pope may be an enlightened figure, we cannot count on his protection. We start observing sunspots at our own risk. |
| Andrea | I am confident that the Dutch, French and Czechs are all wrong and that the sun rotates. |
| Galileo | It is good to have confidence, but also to remain rational. My purpose has never been to prove that I am always right, but to verify whether I am right or not. I have always said that people engaged in scientific research should give up all hope. Maybe it's a fog, maybe it's a sunspot; but until we get to the bottom of it, let's assume it's a fly rather than the sunspot that suits us. Yes, we will question everything again. We'll walk barefoot into the muddy swamp, moving at a snail's pace. What is discovered today may be erased from the blackboard tomorrow; only when we really prove it can we write it again. The more you want to discover something, the more you have to prove it with a skeptical attitude. So, when we look at the sun, we must, with stoic determination, try to prove that the earth is standing still! When we fail completely and feel disheartened, we might as well start to ask ourselves again, maybe our initial view is right, maybe the earth is really spinning! |
| Andrea | I knew before Ludovic came that you had already started the work! |
| Galileo | If all other hypotheses were disproved but this one, we would be merciless to those who speak without experimenting. Take the cover off the telescope and point it at the sun! |
| Virginia | (Runs up in her wedding dress) You sent him away, Dad! |
| Galileo | (He adjusts the position of the bronze mirror) I must figure it out! |
|  | (Dark scene. Carnival music is played. Andrea said the following lines in the front area during the scene change, and other actors performed corresponding mime performances. The background projections are screenshots of various social media and media reports) |
| Andrea | In 1624, Galileo met Pope Urban VIII, the former Cardinal Barberini. He allowed Galileo to study and publish books on the Copernican system, provided that it did not go beyond purely mathematical research.  Six years later, in 1630, Galileo completed his book Dialogue Concerning the Two World Systems of Ptolemy and Copernicus, which was published two years later. His theories spread among the people, were adapted into pamphlets, folk songs, and even made astronomy the theme of many carnival parades.  Anyone who has read the book "Dialogue" knows that it is absolutely not beyond pure mathematical research—— |
|  | (A group of people in the parade suddenly entered the stage, holding some signs with titles such as "Heliocentric theory is the truth!" "Believe in science but not the Bible!" "Overthrow the feudal cosmic order, and the people are the masters of the country" and so on; the background projection is similar to social media Content. They placed a sun symbol over Galileo's head and began to do a funny dance around him. At the end they dropped a Bible and stepped on it. The pope picked it up after the crowd dispersed Stand up and watch thoughtfully.) |
|  |  |
| Scene VII Palace of the Grand Dukes of the Medici, Florence | |
| (Antechamber and staircase in the Palace of the Grand Dukes of the Medici in Florence. Galileo and his daughter await the reception of the Grand Duke. Two porters stand at the door. Galileo sits; Virginia walks to the front area) | |
| Virginia | In 1633, my father's scientific research career seemed to be going smoothly and flourishing. My father and I came to the mansion of the Grand Duke of Medici to wait for an audience. (Turning back to Galileo) Dad, we've all been waiting for a long time. |
| Galileo | yes. |
| Virginia | Could it be that something happened. Dad, what's in your book? People won't think it's all heresy again. |
| Galileo | You, you just go to church too much, and your mind is full of those things. How could there be so many heresies to write about? I see you went out to pray early this morning, did you pray for me? |
| Virginia | (Enter Sagredo) Here comes Mr. Sagredo. Don't forget to thank him for the roast chicken. |
| sagredo | Galileo, how about the roast chicken I sent the other day? |
| Galileo | It tastes so good, thank you again, old friend. |
| sagredo | They were talking about you just now. There are pamphlets slandering the Bible all over the streets lately, and they say you're responsible for it. |
| Galileo | I don't know anything about pamphlets. The "Bible" is a reading material that I can't put it down, how can I slander it. |
| sagredo | Then again, it seems that there are many supporters of you on the street and in the factories outside. The world is changing fast now, and workers everywhere are fighting for the freedom to learn new things. If they're really going to do something to you, there will be people from all walks of life willing to stand up for you; a northern city like Venice will probably all support you. |
| Galileo | As far as I know, no one wants to oppose me. |
| sagredo | nobody? |
| Galileo | No. |
| sagredo | Take my advice, old friend, you'll be fine in Venice. There are not so many black robes there, you can fight there too. My car is downstairs, look ... |
| Galileo | I don't think I've yet descended to the level of a fugitive. I can't live without comfort. |
| sagredo | Of course you can't do without. But I must tell you that, based on the conversation I just heard, the situation is now imminent. I feel like now they want to kick you out of Florence. |
| Galileo | Impossible, the Grand Duke is my student. Besides, if others really want to persecute me, the Pope himself will not sit idly by. |
| sagredo | Galileo, you do not seem to be very good at distinguishing between friend and foe. |
| Galileo | But I am good at distinguishing between strength and weakness. (he walks away impatiently) |
| sagredo | Well, good luck to you then. (Down) |
| Galileo | (Back to Virginia) Why every time I want to accomplish something, he has to come out and obstruct me in every possible way. I just wrote a book on celestial mechanics, that's all; as for what can be derived from it, what does it have to do with me? |
| Virginia | (Loudly) If only you could say all the things you said about last year's marches. |
| Galileo | Yeah, if you feed a bear honey when it's hungry, you'll lose your arm. |
| Virginia | (in a low voice) Did the Grand Duke invite you? |
| Galileo | No, but I have put my name on it. He wants my book and has already paid for it. Go ask the gatekeeper, why did you wait for so long and still not heal? |
| Virginia | (to the gatekeeper) Hello, does His Royal Highness know that my father is asking to see you? |
| Watchmen | How do I know if he knows or not? |
| Virginia | This is not an answer for you. |
| Watchmen | Why is it not an answer? |
| Virginia | Can't you be a little more polite? |
|  | (The doorman turns and yawns sideways on Virginia. Virginia goes back) |
| Virginia | He said the Grand Duke was still busy. |
| Galileo | I heard you say "polite", what's going on? |
| Virginia | Nothing, I just thank him for his polite answer. |
| Galileo | I was thinking, my body is getting worse day by day, and it seems that there are not many good days left. It might not be such a bad idea to accept Sagredo's invitation to spend a few weeks in Venice. I can take a case or two of wine here with me. |
| Virginia | I think you can't go anymore, you always say that wine can't stand carrying. In addition, the court still owes you three months' salary, I don't think they plan to pay you anymore. |
| Galileo | you're right. |
|  | (The Inquisitor comes out of the door) |
| Virginia | Lord Judge! |
|  | (He walks past them, bowing meaningfully to Galileo) |
| Virginia | Papa, what are the Inquisitors doing in Florence? |
| Galileo | I have no idea. His attitude was respectful. Deciding to come to Florence many years ago, I knew what I should do, but I was forced to be silent for so many years. Now that they start to praise me, they can't ignore my reputation. |
| Watchmen | (Calling loudly) His Royal Highness the Grand Duke is here! |
|  | (Cosmo de' Medici comes out of the door. Galileo goes up to him, and Cosmo stops awkwardly) |
| Galileo | Your Highness, I would like to share my "Dialogue on the Two World Systems of Ptolemy and Copernicus" ... |
| Cosmo | ok, ok. How are your eyes? |
| Galileo | Not very well, Your Highness. If His Highness agrees, I will take this book ... |
| Cosmo | The condition of your eyes really disturbs me. Perhaps, you have been observing with your advanced telescope for too long? (He walks away without taking the book) |
| Galileo | He doesn't accept books, what's going on? |
| Virginia | Dad, I'm afraid. |
| Galileo | (lower, firmly) Don't panic, let's get out of here. I asked Andrea to keep a car loaded with wine barrels and books in a nearby alley, ready to take us out of town at any time. |
| Virginia | You already know ... |
| Galileo | Don't look around. |
|  | (The two are leaving. A monk in a black robe enters and blocks their way) |
| monk | Mr. Galileo, I am ordered to inform you that the Court of Florence cannot continue to ignore the appeals of the Holy Inquisition; you will be tried in Rome. The car of the Inquisition is waiting for you downstairs. Please, Mr. Galileo. |
|  | (The suspenseful music starts. The monk leads Galileo down and meets Andrea who is going up. They exchange meaningful glances and Galileo exits. When the scene changes, the pope and the judge appear, the pope and the judge whisper, and then shake hands , next. The shadow of a huge torture device appears in the projection. Perhaps there is also the scene of Bruno being burned to death. Andrea walks to the front area and speaks the following lines. The set and projection switch to Rome's Residence of the Minister of Florence) |
|  |  |
| Scene 8 Residence of the Florentine Legation in Rome | |
| Andrea | On June 22, 1633, Galileo was tried by the Inquisition in Rome. His students, and those who believe in science, are anxiously awaiting the outcome of the trial. It was said that the pope had met privately with the inquisitors of the Inquisition, that the pope was an old friend of Galileo, and would certainly intercede for him. But no one knows what the Pope said, let alone what Galileo experienced in prison.  I was thirty-five years old that year. The fire of idealism in my heart was not extinguished that year, and I still believed that reason will eventually overcome ignorance, and light will eventually overcome darkness. |
|  | ( Andrea, Sagredo waiting for news. Virginia kneeling in a corner praying) |
| sagredo | The pope refused to receive him. He didn't want to argue with Galileo about scientific issues anymore. |
| Andrea | The Pope is his last hope. Years ago, when the Pope was a cardinal, he said to him in Rome: We need you. It's true: they're sending him over now. They will surely kill him. "Dialogue" can not be finished. |
| sagredo | Do you really think this is going to happen? |
| Andrea | Yes, because he will never give up his doctrine. |
|  | (quiet scene) |
| sagredo | When I can't sleep at night, I always have some irrelevant thoughts. For example, last night, I kept thinking: In fact, he shouldn't have left the Republic of Venice. |
| Andrea | He could not write a book there. |
| sagredo | He wrote a book in Florence but couldn't publish it. |
|  | (quiet scene) |
| sagredo | I also thought that he always carried small stones in his pocket and carried them wherever he went. But now that he was being taken to that place, he was probably not even allowed to have pockets, let alone small stones. |
| Andrea | (shouting) They dare not do it! Even so, he will not give up his doctrine. Remember he once said, "He who does not know the truth is but a fool; but he who knows the truth and calls it a lie is a sinner." |
| sagredo | I don't believe he's going to publicly repent, either, but they have violence. |
| Andrea | Violence cannot solve all problems. |
| sagredo | maybe. |
|  | (quiet scene) |
| sagredo | He has been in prison for twenty-three days. The trial was held yesterday, and the judges' meeting is today. I remember visiting him the day after the decree, and we sat talking in the garden. He compared his own work to a poem by Horace: "Winter and heat, near and far. real". He has been thinking about the truth. |
| Andrea | Do you remember how he stood when the Academy of Rome examined his telescope? It looked exactly the same as usual. He puts his hands by his thighs and pokes his stomach and says, "Gentlemen, I ask for a little sanity!" (He laughs imitating Galileo's gesture. Silence) |
| Andrea | (pointing to Virginia) She is still praying that he will repent and give up his doctrine. |
| sagredo | let her go. After they talked to her, she has lost all her mind. |
|  | (Mrs. Salti returns from outside) |
| Mrs Salti | But it's back, it's really messy outside. Mister Galileo may be back soon. He may need a bed. |
| sagredo | They let him go? |
| Mrs Salti | At five o'clock, they said, he was expected to make a public confession at a meeting of the Inquisition and renounce his doctrine. When the church bell rang at that time, it meant that he had publicly read the confession. |
| Andrea | I do not believe. |
| Mrs Salti | It's full of people outside now, and I'll see if I can get him in through the back door then. (Down) |
| Andrea | (Suddenly loudly) The moon is a piece of land, and it doesn't shine by itself. Venus doesn't emit light either, it revolves around the sun like the earth. Jupiter is not fixed on a spherical body, and has four satellites revolving around it. The sun is the center of the world, and it stands still in its place. The Earth is not the center of the world, nor is it static. He is the one who showed us all this. Violence cannot erase what one has witnessed. |
| Virginia | (points to the clock on the wall) It's five o'clock! (Prays louder and louder) |
| Andrea | I can't take it anymore! They are killing the truth! |
|  | (He covers his ears, and Sagredo covers his ears. But the bell does not strike. There is silence, except for Virginia who murmurs a prayer. After another moment, they drop their hands) |
| sagredo | Nothing happened. It's five past three. |
| Andrea | He resisted. |
| sagredo | He did not abandon his doctrine. |
| Andrea | Did not give up. How lucky we are! (He embraces Sagredo) This proves: violence cannot solve all problems! This proves: ignorance is not inviolable, it will eventually be defeated! This proves: people are not afraid of death! |
| sagredo | I seem to be witnessing the dawn of an age of sanity. I also doubted for a moment that he would give up his doctrine, but he did not after all. |
| Andrea | I knew he wouldn't give up his faith. If he turns his back on his doctrine, it dawn will be dark again. But today everything is different! People, people who have suffered so much raised their heads and said: I have hope of living! All victories come from one person stepping up and saying that "no"! |
|  | (The cathedral bells chime suddenly. Everyone is dumbfounded and stupefied) |
| Virginia | (Stands up) The church bells are ringing! He was not convicted! |
|  | The stage goes dark. Virginia ran out. The picture of Galileo reciting the confession appeared on the TV:  " I, Galileo Galilei, teacher of mathematics and physics in Florence, swear to repudiate the heliocentric views, etc., which I have taught. I swear to repudiate and curse all these errors and heresies, and any other fallacy sum opposed to the Holy Church approach." |
| Andrea | How unfortunate is a nation without heroes! |
|  | (Enter GALILEO. His face, haggard from imprisonment, interrogation, is almost unrecognizable. He hears what Andrea says. He stands a moment by the door, waiting for Andrea's greeting, but Andrea does not Turning his head. Due to his poor eyesight, Galileo slowly groped his way to the front, found a stool and sat down) |
| Andrea | I don't want to see him. You tell him to go away. |
| sagredo | you calm down. |
| Andrea | (Angrily drinking) Wine bags and rice bags! Save a dog's life! (sitting down) I feel sick. |
| Galileo | (calmly) Pour him a glass of water. |
|  | (Sagredo offers Andrea a glass of water. Galileo's confession begins again on TV) |
| Andrea | If you give me a hand, I should be able to walk. |
|  | (Sagredo supports him towards the door. Galileo begins to speak) |
| Galileo | No. A nation in need of heroes is truly unlucky. |
|  | ( Sorrowful music starts and the scene changes. Galileo sits still and is quickly drawn into an aged appearance by the make-up artist. The scene gradually changes to a dilapidated farmhouse. Throughout the process, Virginia reads the following lines ) |
| Virginia | A horse will break its leg if it falls from a height of more than one meter, but a dog will not fall if it falls from the same height. All will be safe and sound. These are obvious facts. In the same way, small plants are easier to maintain themselves: an oak tree fifty or sixty meters high is often not as easy to maintain a reasonable proportion of branches and trunks as a small tree. Nature will not permit a horse to grow twenty times, nor a man twenty times in height, unless the proportions of the bones are altered, and the quality of the bones greatly strengthened. People always think that big and small machines are equally durable, but this idea is obviously wrong.  —Excerpt from Galileo's "Dialogues"  From 1633 to 1642, Galileo was imprisoned in a farmhouse on the outskirts of Florence as a prisoner of the Inquisition until his death. |
|  |  |
| Scene 9 A farmhouse on the outskirts of Florence | |
|  | (At this point the scene change is complete: a spacious room with a table, chairs and a globe. Galileo, aged and half-blind, is experimenting with small wooden balls on a curved track. A monk guards the The door. There is a knock. Virginia goes out, then up again, carrying a goose ) |
| monk | What's this? |
| Virginia | Goose from someone else. |
| monk | Who sent it? |
| Virginia | He didn't say anything, and asked me to tell Mr. Galileo that it was given by a passerby. |
|  | (The monk examines it and returns it to Virginia with confidence. She shows Galileo the goose) |
| Virginia | A passer-by who asked not to be named has brought you a gift. |
| Galileo | what gift? |
| Virginia | Can't you see? |
| Galileo | can not see clearly. (Going forward to take it) It's a goose. Still quite heavy. I can still eat a few bites. |
| Virginia | Just finished dinner, why are you hungry again! What's wrong with your eyes? You should be able to see what I'm holding from over there at the table. |
| Galileo | Because you stand in the dark. |
| Virginia | The place where I was standing was obviously quite bright. (carries the goose down) |
| Galileo | Remember to add some onions, and a few more apples. |
| Virginia | (to the monk) We must send for the ophthalmologist. My dad sat at the table and couldn't even see what the goose was. |
| monk | This requires the approval of the Bishop. Has he written something himself again recently? |
| Virginia | No. His books are all dictated and written down by me, as you know. The last two pages written are given to you. |
| monk | He is an old fox, very cunning. |
| Virginia | He violated no discipline, and his repentance was sincere. I've been staring at him. (Hands the goose to him) Please tell the kitchen to fry the foie gras, add an onion and an apple. (back to Galileo) It's time we thought about your eye disease. Stop fiddling with wooden balls and dictate another paragraph from this week's letter to the Archbishop. The archbishop has been asking you what you think of his canons. (sit down and prepare to dictate) |
| Galileo | Where did it go? |
| Virginia | Paragraph 4: "Regarding the riots in the Arsenal of Venice, I agree with the Bishop in his attitude towards the rioting workers ..." |
| Galileo | right. "I agree with my lord bishop in the attitude of the troubled workers, that is, rather than raise the wages of the workmanship and the workmanship of the cable, it is better to give them some broth in the spirit of fraternal Christianity. For, strengthen their faith instead of their It seems wiser. As a saint said: Do many good deeds, and you will be rewarded.” What do you think? |
| Virginia | Great, Dad. |
| Galileo | Don't you think it could be mistaken for irony? |
| Virginia | No, the Archbishop will be pleased. He is a practical man. |
|  | (There is a knock at the door. The monk opens it. It is Andrea Sarti. He is now middle-aged.) |
| Andrea | Good evening. I was about to leave Italy to do scientific research in Holland, and I was asked to stop by and visit him, so that they would know how he was doing. |
| Virginia | I'm not sure if he wants to see you or not. You never came here. |
| Andrea | You ask him. |
|  | (Galileo recognizes Andrea's voice. He sits still. Virginia enters the room towards him) |
| Galileo | Is it Andrea? |
| Virginia | Yes. Do I need to send him away? |
| Galileo | (Pauses a moment) Bring him in. |
|  | (Virginia takes Andrea into the house) |
| Virginia | (to the monk) He won't mess with anything. He used to be Dad's student and is now his enemy. |
| Galileo | Leave me alone with him for a while, Virginia. |
| Virginia | I want to hear what he has to say. (sit down) |
| Andrea | (coldly) How are you? |
| Galileo | You stand closer. What have you been doing? Can you talk about your work? I heard you were working on fluid mechanics. |
| Andrea | Scholars in the Netherlands are asking me how you are doing. |
| Galileo | I'm fine. They still care about me. |
| Andrea | I am relieved to be able to tell them that you are doing well. |
| Galileo | They'll be happy to hear that, too. You can also tell them that my life is very comfortable. And because of my deep repentance, I finally obtained the grace of the officer to conduct limited scientific research under the supervision of the church. |
| Andrea | good. We have also heard that the Church is very pleased with you. Your utter contrition has worked. I have heard a magistrate say with satisfaction that because of your submission, no new work has been published in Italy with a new proposition. |
| Galileo | (Alertly towards the door) It's a pity that some countries are not under the guardianship of the church. I am concerned that the doctrines that have been criticized are revived in those countries. |
| Andrea | Because of your public repentance and your denial of your own doctrines, those countries have also restrained themselves. The church is very happy with this. |
| Galileo | real? (Pause.) Any news from Descartes? And what about Paris? |
| Andrea | On hearing of your public confession, Descartes tucked his treatise on the nature of light back into a drawer. |
|  | (long pause) |
| Galileo | I worry for several of my scientific colleagues who have been led astray by me. Have they learned from my repentance? |
| Andrea | If I want to continue my research, the only way is to go to the Netherlands. Even elephants can't cross the river, but ponies don't have to bite the bullet. |
| Galileo | I see. |
| Andrea | I heard that Sagredo never touched the laboratory equipment again. |
| Galileo | (laughs) He wasn't that addicted in the first place. |
|  | (pause) |
| Andrea | I heard that many young people inspired by you have given up their research work and returned to the halls of the church. |
| Galileo | also good. |
|  | (pause) |
| Galileo | Thanks to the concern of the officers for the recovery of my soul, I have made more progress than expected. |
| Andrea | oh. |
| Virginia | praise my lord. |
| Galileo | (brutally) Go see how the goose is doing, Virginia. |
|  | (Virginia grows annoyed, and talks to the monk as she passes) |
| monk | I don't like this person. |
| Virginia | He won't make any fools. Didn't you hear it all? Would you like to try my cheese? |
|  | (The monk follows her) |
| Andrea | I have to hurry tonight, so I can cross the border early tomorrow morning. can I go now? |
| Galileo | I'm writing something new again. |
| Andrea | oh? |
| Galileo | I have finished writing "Dialogue". |
| Andrea | What? Is it "A Dialogue between the Two New Sciences of Mechanics and Localized Motion"? Written here? |
| Galileo | Yes, they give me paper and pen. My officers are not stupid. They know that deep-rooted vices cannot be eradicated overnight. I write a page, they take a page; and then lock it up, saving me from any dire consequences. |
| Andrea | Oh my god! |
| Galileo | What did you say? |
| Andrea | They are wasting your efforts! You are given a pen and paper to stop you! Their purpose is so obvious, how can you continue to write? |
| Galileo | Old habits die hard. |
| Andrea | The Dialogues in the hands of monks! Scholars in Amsterdam, London, and Prague are eager for this book! Two new disciplines will go down the drain! |
| Galileo | Still, they would be relieved to hear that I risked my comforts by depositing a manuscript. For six months, I secretly made a copy on a clear night by the dim moonlight. |
| Andrea | Do you have a copy? |
| Galileo | Vanity has kept me from destroying it so far. |
| Andrea | Where is the copy? |
| Galileo | If there is one thing that keeps getting you into trouble, it may be easiest to get rid of it. It might be foolish to pass it on. But since I can't do without science, you might as well take it. The copy is hidden inside the globe. (Andrea starts to open the globe) If you want to bring it to Holland, of course you have to be prepared to take full responsibility. You can say you bought it from someone who stole it from the church. |
| Andrea | "Dialogue"! (Flips through the manuscript, reads aloud) "I will discuss an ancient phenomenon--motion, so as to establish a new discipline. Through experiments, I have discovered several salient features of motion." |
| Galileo | I always have to do something to pass the time. |
| Andrea | This will lay the groundwork for new physics. |
| Galileo | Just tuck it into your top. |
| Andrea | We all thought you surrendered! Among your opponents, I am the most radical! |
| Galileo | As it should be. I teach you science and I deny truth. |
| Andrea | This manuscript changed everything. All the things. |
| Galileo | Yeah? |
| Andrea | You hide the truth. Even morally you are centuries ahead of us. |
| Galileo | Can you explain what this means, Andrea. |
| Andrea | When we met, we said to people: "He would rather die than repent, and he would not deny his theory"; but you came back alive and said, "I repent, I deny my theory, but I will live on."  We say, "Your hands are stained"; you say, "It's better to have a stain than nothing". |
| Galileo | Better to be stained than nothing. This sounds very realistic, like what I said. New science, new ethics. |
| Andrea | I should have understood you, I understand you better than anyone! At the age of eleven, I witnessed you sell the telescope invented by others to the officials of Venice, and I also witnessed you use it to achieve immortal achievements. Your friends shook their heads when you kowtowed to the child of the Grand Duke of Florence; but you won a place for science. You laugh at your heroes all the time, saying "people who suffer bore me". You also said that "due to obstacles, the shortest path between two points may be a curve". |
| Galileo | I still remember. |
| Andrea | In 1633, when you decided to deny your most popular doctrine, I should have understood that you were only trying to get out of a hopeless political struggle in order to get on with serious research. |
| Galileo | This research refers to ... |
| Andrea | Study the basis of all machinery - the nature of motion. It is enough to make the world so beautiful that people forget to seek heaven. |
| Galileo | aha. |
| Andrea | You earned your spare time to write the science that only you could. If you end your life in flames at the stake, those are the victors. |
| Galileo | They did win. Besides, there is no scientific work that can only be done by one person. |
| Andrea | Then why did you repent? |
| Galileo | Because I am afraid of the pain of flesh and blood. |
| Andrea | impossible! |
| Galileo | They showed me torture equipment. |
| Andrea | So you didn't intend to do it? |
| Galileo | didn't think so. |
|  | (pause) |
| Andrea | (loud) The only thing that matters to science is the contribution to knowledge. |
| Galileo | I made a contribution, but now I feel like I am in a stinking ditch. Science is my creed, but betrayal is my motto. I sold my holy faith and nothing was the same. Welcome to the palace of Flying Camp Gougou, covering up the truth, greedy for life and afraid of death! |
| Andrea | It is human nature to be greedy for life and fear death! Human weakness has nothing to do with science. |
| Galileo | No relationship? ! Dear Andrea, even though I am in this situation, I still want to tell you some of my views, so that you can learn more about the science you are doing. |
|  | (pause) |
| Galileo | (Hands folded on belly, scholarly) It takes a special kind of courage to do scientific work. Scientific knowledge originates from doubt; it unravels the mysteries of all things and makes people doubt everything at the same time. But princes and generals often just want to wrap the people in a fog of superstition and lies to cover up their various conspiracies. The history of people's suffering is as immutable as mountains and rivers, and they still claim from the platform that these sufferings are as indestructible as mountains and rivers.  Our skeptical new findings give people hope. People took the telescope from us and pointed it at those who tormented them, at those princes and generals. Those who greedily use scientific achievements for personal gain are now being watched coldly by science; everyone realizes that only by getting rid of these people can we end all man-made suffering that lasted for thousands of years. As a result, those in power began to coerce and lure us scientists, using both soft and hard methods, to make the weak-willed give in. But if we betray the people, are we really qualified to continue to be scientists?  The movements of the celestial bodies have gradually become clear, but the actions of the rulers remain obscure to the people. It was doubt that helped win the battle to measure the sky, but it was faith that kept women losing their fight for milk. Andrea, science has a lot to do with both of these struggles. In my opinion, the only purpose of science is to alleviate human suffering. If human beings continue to be lost in superstition and lies, the mysteries of nature revealed by science will not be put to good use. If scientists are deterred by the power of selfish authorities and only content to pursue knowledge for its own sake, then science will become deformed, and new inventions will only bring more suffering to people. Even if one day you acquire all the knowledge, every step you take is to deviate from human beings.  As a scientist, I had a once-in-a-lifetime opportunity; in my day, astronomy was on the streets. In this case, one person's unyielding strength could have triggered a huge impact. If I had resisted resolutely, I might have inspired all scientists to use their knowledge only for the benefit of human happiness.  I was also convinced afterwards, convinced that I was not in real danger. For several years, I fought against them. But I surrendered my knowledge to them and let them do whatever they want with it. (Virginia enters with bowl, stops)  I turned my back on my career. A person who has done this kind of thing is not worthy of gaining a foothold in the scientific community. |
| Virginia | You have been accepted into the ranks of believers. (put the bowl on the table) |
| Galileo | Yes, it's time for me to eat. |
|  | (Andrea holds out her hand to him. Galileo sees it, but doesn't take it) |
| Galileo | You have become a model teacher now, how can you shake the hand of someone like me again? (Going to the table) A passer-by gave me a goose. I'm still very gluttonous. |
| Andrea | Do you no longer feel like a new era has dawned? |
| Galileo | Quite the opposite. When you cross the German border, watch out for your overcoat, which contains the truth. Thanks again for visiting me, I'm going to start eating. (He starts to eat the goose from the bowl) |
|  | (Andrea walks to the front area, the back area gradually darkens. Other characters step up and stand on the sides, one of them hands Andrea a suitcase, helps him put his hat on, etc.) |
| Andrea | In 1637 I said goodbye to M. Galileo and crossed the frontiers of Italy with his Dialogue. |
| Galileo | Who do you think gave this goose? |
| Virginia | I don't know, it's definitely not Andrea anyway. |
| Galileo | I also don't think it's him. |
| Andrea | On the way, I still couldn't let go of everything he said that day, about his self-evaluation. I can't believe this is the conclusion he deserves. He has contributed so much to humanity, that should not be our evaluation of him. |
|  | (After each of the following people finished the last line, they turned around and looked at Galileo) |
| Mrs Salti | He's just a gluttonous and troublesome old man. |
| Andrea | His Dialogues were later published in Leiden, Holland, and rekindled the fire of knowledge. |
| Virginia | He is not a good father. |
| Andrea | Both the experimental methods and the scientific principles in this book provided the foundation for modern mechanics and experimental physics. |
| Barberini | He's a very smart guy. |
| Bellarmine | His cleverness terrifies me. |
| Andrea | Hundreds of years later, a man named Einstein called him "the father of modern physics". |
| Ludovic | He shamelessly stole a telescope invented by others. |
| Andrea | The telescope he improved was magnified ten times, and he used it to discover sunspots, the waxing and waning of Venus, the rings of Saturn, the rotation of the sun ... He is the veritable father of modern astronomy. |
| Cosmo | He clings to the powerful and humbles himself for the sake of court life. |
| Judge | He was so bold that he dared to challenge the authority of the church. |
| Andrea | He subverted the Aristotle theory that had ruled Europe for thousands of years, and smashed the shackles on the door of thought with the sword of doubt. |
|  | (The uproar is interrupted by the sound of a stone falling. Sagredo picks up the stone and walks to Andrea) |
| sagredo | He is just an old urchin who likes to think about balls, stones, and apples. |
| Andrea | apple? (laughs) Indeed, I remember the way he used an apple as an analogy. |
| sagredo | And the starry sky. |
| Andrea | starry sky? |
| sagredo | He always likes to look at the stars. Boundless, unfathomable starry sky. |
| Andrea | oh? Does he still like Xingkong so much now? |
| sagredo | Of course, don't believe me. |
|  | (They turn to look at Galileo. He is looking up at the stars, but he cannot see clearly due to eye disease. The background is a brilliant galaxy) |
| Galileo | How is the night tonight? |
| Andrea | (Goes to him and takes his hand) Clear as water. |
|  |  |
| play ending | |
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