

My fellow debate members:

June 19, 1633

Herein lies the reasoning and evidence that supports my perspective on the trial of Galileo. The basic question: whether Galileo is guilty of heresy, whether formally, vehemently, or mildly guilty, or if his beliefs are merely scandalous, or not even that. My decision is that Galileo is mildly guilty, and he can only publish works that follow the rules laid out by the Church. I hold that the Earth does not move, but is stationary with the Sun and all other heavenly objects moving around it. I hold that the heavens may not be fixed or perfect. I have seen what Galileo describes through the telescope myself, but hold that none of it definitively challenges Aristotle's cosmology. All that can be observed simply allows for theorizing on these heavenly objects. Let me now describe the evidence that I present in support of my decision and the above claims.

I hold that some of Galileo's observations are indeed truth for I have observed them myself. I too saw dark spots that move on the Sun (Galileo telescope page 1). These spots may well be an indication that the heavens are not as perfect as is generally acknowledged. However, that does not mean that this can be inferred to say that Earth also rotates on an axis. Of course, the counter-argument that this very much means Earth rotates on an axis is also has validity here. Further, Galileo has showed that some heavenly bodies do not orbit the Earth, but rather orbit other planets, like in the case of Jupiter's moons (Galileo telescope page 1). He had inferred this to reinforce the heliocentric universe model, but as I interpret the same observation I like to agree with the Tyconian model and say that some bodies can orbit bodies other than Earth, but those will still be orbiting Earth, not the Sun. The

next observation to briefly discuss is that of Venus' phases. Galileo points out that if the Sun was in orbit as much as Venus we would see no phases, thus these phases are evidence of the heliocentric universe (Galileo telescope page 2). This is one point that is hard to account for under the reality that Earth is at the center of the universe. Thus, for now at least, let me leave this observation hanging for future deliberation if our discussion brings us there. Lastly, there is nothing that can deny the one observation we all have had: The heavens are clearly moving above us, while we are standing still on Earth, meaning that Earth itself isn't moving at all.

One fine line that I must balance on is that between my feeling that Copernicanism may be mildly heretical, and my professional goal of making sure that scientific inquiry—which I've learned so much about—isn't entirely stifled. Therefore, it was fully legal, by my interpretation of church teachings, for Galileo to speak of the heliocentric universe hypothetically (Letter on Galileo's Theories page 1). It is only when he began actively teaching and writing on this notion that those of us who voted that Galileo is simply mildly guilty came to that conclusion over him being completely innocent. After all, as our primary motive here was to make everyone else moderate, we couldn't have gone to the extremes, but had to fall somewhere in the middle.

Some of the observations that Galileo has made are accurate, and the technology he used (which I use myself) isn't what I'm questioning. Rather what I'm questioning is his extrapolation of those observations to the conclusion of a heliocentric universe. These observations are fact, but you cannot observe either the universe Aristotle described or the one Galileo has with this technology. Here is part

of why I may look like I'm actively arguing both sides, because the only reason that Aristotle's universe is the proper universe is that his theories are widely accepted, but further observation may prove or disprove either theory. We can already see that Galileo's theory doesn't prove everything (look at gravity, wind direction, and so on), so I would label Galileo mildly heretical and enforce that he publish theologically sensitive works only if he follows the rules of the Church.

This leads me to a brief discussion of one basic point regarding the technology in use to make these observations that some of my colleagues make. All these observations are based on the use of the telescope, so the telescope itself is just showing an optical illusion of the heavens, and not what is really out there. It is easy for me to counter that by making the analogy of eyeglasses. These are a medieval invention that helps people see the world more clearly. The telescope is no different; it helps us see the heavens more clearly. With this technology we cannot observe a heliocentric universe; this all but confirms the conclusion of common sense given the fact that we aren't moving when we stand still on the Earth.

The authority we theologian scientists turn to for how to respond to such deep notions as these is, naturally, the Church. Therefore, as further evidence of my claims and views, let me evaluate the assessment of these propositions that the church has made. The first such proposition is that the "sun is the center of the world and wholly immovable from its place" (Theo1616). Their assessment was that the proposition was unanimously declared foolish (Theo1616). They further examined if the Earth moves about the stationary Sun, and declared this equally foolish, making both propositions formally heretical (Theo1616). Though I like to

encourage scientific inquiry, I don't go so far as to suggest going against church authority.

The debate itself provided a few interesting points to discuss before I conclude this letter. The first such point is of relevance to my position given that I'm a theologian scientist. A colleague of mine pointed out that the Bible itself is metaphorical, and as such cannot be used as a legitimate scientific source. The church itself is what I look to for authority even amongst using scientific inquiry and my colleagues in those fields as valid sources, but I do not trust the bible without having some sort of evidence to back up its claims.

Another member of our debate did an experiment in front of us to prove that the spheres in Aristotle's universe don't exist. In this experiment she used string and a few volunteers to illustrate how moons could not orbit the planets if they traveled along these spheres. This was one piece of evidence in support of the observations of Galileo's that I too saw that I think helped advance the idea that Galileo wasn't entirely heretical.

The last thing to mention about the debate itself has to do with the exact topic we were debating, as I perceived it. It became clear that as much as we were debating Galileo's observations and conclusions, we were also debating the use of the telescope technology itself as a valid scientific tool. As a scientist this was an interesting topic for me to debate. It shows that the observations and conclusions were in equal doubt to the questioning of the telescope itself.

To conclude this letter I can sum up my discussion by stating that though any single one of us can prove Galileo's evidence to be true, none of us can

authoritatively make the leap to the bigger picture claiming that the Earth is orbiting the Sun. I have seen much of the same things Galileo has through a telescope, but that does not mean the heliocentric universe exists. Further evidence may prove either universe, Aristotle's or Galileo's, correct. We need that evidence before we can decide upon a proper conclusion to the observations already made. Until that time Galileo can only publish if he follows the rules and speaks of the heliocentric universe only theoretically.

Galileo is therefore mildly heretical because though his conclusions go completely against not just Church teachings, but also common scientific knowledge, his observations are indisputable. I'd be counting myself vehemently heretical if I counted Galileo as such simply because I saw these same observations. Galileo can only publish if he discusses the heliocentric universe theoretically and follows the church's rules. This way the scientific inquiry that I value so highly isn't quite stifled, but Galileo also isn't stirring up the common sense beliefs of the universe. I'd love to see him publish, but just don't want him to be talking as if these conclusions he came to, that myself and other scientists haven't when presented with the same observations, are facts of nature.

With faith in our ever-loving God, Alexander T. Celeste, moderate conservative assigned to debate the fate of Galileo