

Second Short Essay Assignment

In Cardinal Bellarmine's letter to Foscarini, he makes the imperative affirmation that Galileo and Foscarini are being wise by limiting themselves to "speaking suppositionally and not absolutely." Bellarmine, like many other Catholic scientists, believed that it was within the realm of reason to make hypotheses that fit with certain observations, so long as those hypotheses did not try to assert the matter as factual, particularly when the theory was contradictory to Holy Scripture. Since Copernicus and Galileo had failed to provide any definitive evidence for their heliocentric universe theories, Bellarmine maintains that the Holy Scripture should not be abandoned, nor should a new literal interpretation be made. During the trial of Galileo, this distinction is the fundamental reason behind his ultimate imprisonment. The Catholic Church allowed mathematical hypotheses, such as those made by Copernicus, but Galileo challenged the church directly by attempting to sway public opinion towards believing in a sun-centered universe as a fact.

Good

In 1610, Galileo made multiple monumental observations of the universe using a telescope. One observation he made was of mountains, or craters, on the moon's surface. According to the Aristotelian worldview, all of the planets in the universe other than the Earth were made of ether. Galileo could clearly see rocky mountainous shapes on the moon though, which contradicted this view. Ptolemy had also said that rocky things, such as the Earth, can't rotate. Since Galileo could see that the moon had a rocky surface, and that the moon could revolve around the Earth, he deduced that the Earth could rotate. Another observation was of four moons orbiting Jupiter. Aristotelian Physics asserted that Earth was the "center of all rotation in the universe," which according to Galileo's observation could not possibly be true. Galileo also found that Saturn had rings - or as he called them, "ears." Since the Aristotelian worldview maintained that all planets but Earth are made of ether, and ether is meant to have a perfectly spherical shape, Saturn clearly does not align with these views either. Ptolemy's geocentric cosmology was based in large part on Aristotelian Physics, so Galileo, who was already an avid supporter of the Copernican system, was all too quick to assert that his observations provided definitive proof that the Earth revolves around the Sun.

All good

Galileo had managed to undermine the Aristotelian physics associated with Ptolemy's geocentrism. However, much like Copernicus, Galileo was still unable to provide an explanation that sufficiently expounded upon his worldview. His findings may have disproved many of Ptolemy's theories, but the controversy over what rotates around what was still ongoing upon Galileo's death. At the time of these findings, I agree that I would have dismissed the Ptolemaic system, but I also don't think that I would have accepted Galileo's belief in a heliocentric system. After a thousand years of belief in an Earth-centered universe, as well as the heavy influence of the Catholic church at the time, I probably would have adopted Cardinal Bellarmine's opinion on the subject. Definitive evidence for heliocentric cosmology would not come to light for another two hundred years with the discovery of Newton's law of universal gravitation, Bessel's successful measurement of stellar parallax, and the development of Foucault's pendulum.

yes

or at least
couldn't explain
everything

Great essay 6/10