

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

Eppur si muove!

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Popular myths are so much a part of our societal milieu, that often the myth is more recognizable that the truth. Some myths are completely harmless (for example the persistent myth that Napoleon, who was 5'7", was short, or that overhead power-lines cause leukemia).

Some myths, however, are immediately harmful and can have serious adverse impact on human life (such as Global Warming).

But more insidious, I think, are the historical myths whose ripples move quietly through time along their circuitous path like a worm wriggling its self into the brain unbeknownst to the thinker.

One such historical myth recently came across my radar, and I realized how the myth had twisted the attitude of the believer into holding a technical opinion that was objectively wrong.

The insidious lie reared its head in a serious scientific debate and involves myth of the trial of Galileo, Copernicus and The (Catholic) Church. The speaker used the case to

argue that The Church was anti-science. I found this a fascinating view, especially considering the Catholic Church invented what is now called "The Scientific Method."

The speaker spun a fancy tale of Galileo being put on trial, and arrested, and imprisoned, and all because he dared to claim the earth moved, and in the end from his prison cell defiantly called out: "*Eppur si muove*." Of course, we now know, none of this happened; and in hind sight, it was The Church who was correct, and Galileo was wrong.

The argument started off by expressing many myths, and I have addressed some of them below. I hope you enjoy the read.

Myth: The (Catholic) Church condemned the Copernicus theory as heresy:

Fact: The Catholic Church ruled on the theory all right, it ruled that it would REFUSE to condemn the Copernicus theory. In fact, It was Pope Paul III who encouraged Copernicus to publish "Six Books on Revolutions of the Celestial Orbits ." (Most people don't realize Copernicus himself was a Catholic priest – just like the scientist who thought up the cosmological "Big Bang Theory").

Myth: The Churched condemned Galileo for publishing his works on the Copernicus theory.

Fact: Pope Paul the V gave Galileo two Papal awards for his work, and Galileo received personal accolades from none other than Father Grienberger (inventor of the equatorial mount for a telescope – still in use to this very day). This is the same Father Clavius, who headed the commission on the Gregorian Calendar, (also still in use to this day).

Myth: The Church condemned Galileo's "Letter on the Sunspots" as heresy.

Fact: One of the personal accolades Galileo received for his publication came from none other than the powerful Cardinal Barberini (who later changed his name to Pope Urban VIII).

Myth: The Church condemned Galileo's 1632 paper "Dialogue on the Great World Systems" as heresy.

Fact: Galileo didn't want to publish the paper, and it was on the insistence and encouragement of Pope Urban VIII that Galileo relented and published his paper – which was widely and enthusiastically received by the Scientific Community of the day (which was almost exclusively The Catholic Church – who, remember, invented the "University System" during the so-called, "Dark Ages.") We now know, the "Dark Ages" never really existed in any form that is consistent with popular misconceptions of the time.

Galileo's real problems began when Galileo exercised his well-known self-confidence and boldly announced that the Copernicus Theory was not a valid theory (as maintained by The Church) but was in fact "literal truth." The Church (who was paying for Galileo's expertise), warned Galileo that until he could resolve the problem of no observed shifting parallax of the stars, (which Galileo was unable to do), the Copernicus theory was just that – a good theory – but a theory with bugs.

Galileo decided to take the fight out of the realm of science, and enter the realm of theology and try to argue that the theologians were wrong, and he, as a scientist, was right.

The Church implored Galileo to stick to his field, and follow the "Scientific Method" and until such time that Galileo could objectively resolve the shifting parallax problem, he needed to stay on legitimate scientific grounds and stop telling theologians they needed to revise scripture to be consistent with the Copernicus theory. (In other words, everyone needed to stay in their owner corners, and not tread on grounds for which they had no competency).

Galileo refused and, out of pride, insisted that as a Scientist, he was automatically authorized to speak on the issue of Theology with more authority than a Theologian! Galileo personally challenged the Boss (the Papa), and was personally slammed for it (while at the same time of course, all other Catholic Priests of the day were still allowed to continue to teach the Copernicus theory as a theory – see for example the work by the great Astronomer, Father Roger Boscovich). Galileo's pride pushed him too far, and although he wasn't able to objectively produce the data needed to support Copernicus, he falsely claimed that he could, and he falsely claimed that the Copernicus theory was resolved and the Pope was wrong!

We now know that the Church was correct, and Galileo was wrong – Copernicus theory had flaws and in particular the orbits were NOT spherical as Galileo claimed. Had Galileo followed the orders of the Pope, and just stuck to the scientific method, as he was being paid to do, Galileo would never have gotten into hot water, because he would have ultimately realized that he was wrong. When he was found to be teaching heresy, it was because Galileo refused to follow the scientific method, not because the Church condemned the Copernicus theory.

Galileo was never imprisoned – he was remanded for a while to a Vatican Apartment (where he even had a servant) and from whence he continued to write, and later of course retired.

We now know that the advancement of science occurred because of, and not in spite of, the Catholic Church, and much of that occurred during the "Dark Ages" that otherwise simply didn't exist.

Final Score: Catholic Church: 1

Galileo: 0