



Criminalizing Scientific Controversy: Climate Change, Galileo, and Our Modern Inquisition

The proposed federal investigation into those who question man-made climate change is more dangerous to science than the Inquisition.

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In a remarkable letter to President Obama, twenty climate scientists have called for a RICO (Racketeer Influenced and Corrupt Organizations Act) investigation into “corporations and other organizations that have knowingly deceived the American people about the risks of climate change.” They support their position by claiming that “an overwhelming majority of climate scientists are convinced about the potentially serious adverse effects of human-induced climate change on human health, agriculture, and biodiversity.”

The RICO letter has drawn the interest of Walter Olson of the Cato Institute, who is concerned about “the continuing freedom to pursue lines of inquiry in public debate that the government may find unwelcome or unreasonable,” and Walter Williams of George Mason University, which is home to six signatories of the letter, who has derided it as part of “a desperate effort to gain greater control over our lives.”

In this essay, I discuss another problem with the letter: it aims to subvert the integrity of science. In this way, it is similar to—but, in an important way, worse than—the famous and often misunderstood case involving Galileo.

Science and the State

The notion that a criminal investigation should be used to arbitrate a scientific dispute is antithetical to the proper norms of scientific inquiry. Whether or not there is intended deception is irrelevant, because the validity of a scientific theory is independent of one’s motivation for affirming the theory. Moreover, an overwhelming majority of scientists favoring a particular position does not provide scientific support for that position. There was universal support for Newton’s laws for over two centuries, but it only took one dissenter to supersede them.

Human-induced climate change is much less universally accepted than some previously generally accepted theories that were eventually rejected. Indeed, there are many prominent scientists who are not convinced that human-induced changes are significant. If the authors wish to make a case for acceptance, they should state their model, state their conditions for significance, and provide predictions that validate their theory—at least until future observations invalidate it (see my *Public Discourse* article on the war on science). Simply put, the authors should *behave as scientists*. A RICO prosecution will do nothing to support their viewpoint or vanquish their opponents—except perhaps to silence them.

Worse than the authors' nonscientific approach to scientific disputation is their effort to bring down the machinery of the state on their opponents. It has taken centuries for science to free itself from domination by the state. It was not long ago that the opponents of Trofim Lysenko were crushed by Stalinist oppression. The authors might argue that they only want an investigation. If so, do they really expect that potential criminal investigations would not have an adverse effect on free inquiry?

The RICO authors defend their assault on the independence of science by pointing out the risks involved if they are correct about the severity of climate change. As scientists, they should also point out the risks of taking draconian action, but they do not. Clearly, constraints on free enterprise carry economic, social, and political risks. And what of the cost to society resulting from placing scientific disputations under the shadow of criminal prosecution?

Learning from Galileo

It is instructive to compare the RICO letter to a letter written 400 years earlier by Tommaso Caccini and delivered to the Congregation of the Holy Office (the Inquisition) on March 20, 1615. Caccini argued that the Copernican heliocentric theory that the planets orbit about a fixed sun is incompatible with the Bible and informed the Inquisition that Galileo had advocated this theory. On February 26, 1616, the Inquisition ordered Galileo “to abstain altogether from teaching or defending the said opinions and even from discussing them.” Galileo submitted to the decree and avoided prison.

Over the ensuing years, Galileo played cat and mouse with the Inquisition, not content to live within the confines of the decree. Eventually, on June 22, 1633, the Inquisition pronounced Galileo guilty of heresy and disobedience. He spent three days in prison and then was released by order of Pope Urban VIII. In December, he was allowed to return to his own villa, still a prisoner and confined to his own property, but free to continue his research and host visitors.

Our interest here is not with the verdict in 1633, but with the decree of 1616, whose genesis is better understood by considering Copernicus's *De Revolutionibus Orbium Coelestium* (1543), in which he supports the heliocentric theory. *De Revolutionibus* contains the following statement written by Copernicus's assistant: “The master's hypotheses are not necessarily true; they need not even be probable. It is completely sufficient if they lead to a computation that is in accordance with the astronomical observations.”

In 1615, Cardinal Bellarmine, the key Church figure in the affair at the time, wrote,

To say that on the supposition of the Earth's movement and the Sun's quiescence all the celestial appearances are explained better than by the theory of eccentrics and epicycles is to speak with excellent good sense and to run no risk whatever. Such a manner of speaking is enough for a mathematician. But to want to affirm that the Sun, in very truth, is at the center of the universe and only rotates on its axis without going from east to west, is a very dangerous attitude and one calculated not only to arouse all Scholastic philosophers and theologians but also to injure our holy faith by contradicting the Scriptures.

Bellarmino suggests a possible change in the Church's position by going on to say, "If there were a real proof that the Sun is in the center of the universe ... then we should have to proceed with great circumspection in explaining passages of Scripture which appear to teach the contrary."

Bellarmino's position was communicated to Galileo by Piero Dini in a letter stating, in reference to Copernicus, that "with a similar precaution you may at any time deal with these matters." Had Galileo claimed only that the heliocentric theory better agrees with observations until he could present "real proof," then he would have "run no risk whatever."

More Dangerous than the Inquisition

There are similarities between the proposed RICO investigation and the trial of Galileo.

- In both, the accusers argue that they have the support of the majority of scientists. In the case of Copernicus, even the great Tycho Brahe rejected the heliocentric theory. By the time of Galileo, the theory had gained more support, including from Johannes Kepler.

- In both, the accused would be brought to trial under laws giving the prosecution wide latitude of interpretation.

- In both, the charge is essentially heresy against what Francis Bacon called the *Idols of the Theater*—uncritical acceptance of dogma and popular theories.

- In both, conviction would result in imprisonment.

- In both, the accusers claim there is great societal risk in not taking their position. In the case of Galileo, it was credibly argued that rejecting the geocentric theory would undermine the faith, thus undermining the moral order, and thereby leading to societal breakdown. The argument takes on great urgency when one realizes that from Caccini's accusation to Galileo's conviction spanned the period of 1615 to 1633 and that the Thirty Years War ran from 1618 to 1648, a war resulting in population declines of up to a third in parts of the Holy Roman Empire.

While there are similarities, there is also a very important distinction between the proposed RICO investigation and the trial of Galileo. With Galileo the issue was theological truth. Galileo could have maintained his scientific opinion without being prosecuted. On the contrary, it appears from the language of the RICO letter that the authors desire prosecution over differences of scientific opinion. Science itself is to be brought before the bar of the state, as it was under both National Socialism and Communism.

Thus, the proposed RICO investigation is more dangerous to science than the Inquisition's theological demands. The latter opposed a claim of knowledge of reality on the part of science, an opposition which is today taken for granted, whereas the RICO letter appears to advocate limiting independence in scientific thinking. The situation is made more striking when one considers the position advocated by the Catholic Church in *Gaudium et Spes*: "We cannot but deplore certain habits of mind, which are sometimes found too among Christians, which do not sufficiently attend to the rightful independence of science."