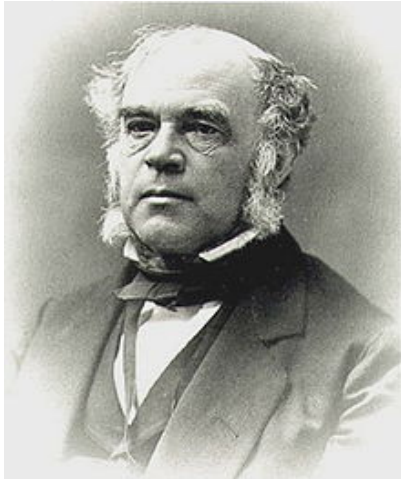


SUMMARY: The perceived conflict between science and religion is primarily a product of John Draper and Andrew White in the late 19th century. There is conflict between scientists and religionists, not science and religion.

As God created the Heavens and the earth and wrote the Bible, there is no conflict between them. There are rather conflicts in interpretation of the science and interpretation of the Bible. In other words, there are conflicts between scientists and religionists, not science and religion.

The following article is straight out of Wikipedia.



John William Draper



Andrew Dickson White

In the 1800s the relationship between science and religion became an actual formal topic of discourse, while before this no one had pitted science against religion or vice versa, though occasional interactions were expressed in the past. More specifically, it was around the mid-1800s that discussion of "science and religion" first emerged because before this time, "science" still included moral and metaphysical dimensions, was not inherently linked to the scientific method, and the term "scientist" did not emerge until 1834. The scientist John William Draper and the writer Andrew Dickson White were the most influential exponents of the conflict thesis between religion and science. Draper had been the speaker in the British Association meeting of 1860 which led to the famous confrontation between Bishop Wilberforce and Huxley over Darwinism, and in America "the religious controversy over biological evolution reached its most critical stages in the late 1870s". In the early 1870s Draper was invited by American science popularizer Edward Livingston Youmans to write a History of the Conflict between Religion and Science (1874), a book replying to contemporary issues in Roman Catholicism, such as the doctrine of papal infallibility, and mostly criticizing what he claimed to be anti-intellectualism in the Catholic tradition, but also

making criticisms of Islam and of Protestantism.] Draper's preface summarises the conflict thesis:

The history of Science is not a mere record of isolated discoveries; it is a narrative of the conflict of two contending powers, the expansive force of the human intellect on one side, and the compression arising from traditionary faith and human interests on the other

In 1874 White published his thesis in Popular Science Monthly and in book form as The Warfare of Science:

In all modern history, interference with science in the supposed interest of religion, no matter how conscientious such interference may have been, has resulted in the direst evils both to religion and to science—and invariably. And, on the other hand, all untrammelled scientific investigation, no matter how dangerous to religion some of its stages may have seemed, for the time, to be, has invariably resulted in the highest good of religion and of science.

In 1896, White published A History of the Warfare of Science with Theology in Christendom, the culmination of over thirty years of research and publication on the subject, criticizing what he saw as restrictive, dogmatic forms of Christianity. In the introduction, White emphasized that he arrived at his position after the difficulties of assisting Ezra Cornell in establishing a university without any official religious affiliation.

James Joseph Walsh, M.D., the historian of medicine, criticized White's perspective as anti-historical in The Popes and Science; the History of the Papal Relations to Science During the Middle Ages and Down to Our Own Time (1908), a book dedicated to Pope Pius X:

the story of the supposed opposition of the Church and the Popes and the ecclesiastical authorities to science in any of its branches, is founded entirely on mistaken notions. Most of it is quite imaginary. Much of it is due to the exaggeration of the significance of the Galileo incident. Only those who know nothing about the history of medicine and of science continue to harbor it. That Dr. White's book, contradicted as it is so directly by all serious histories of medicine and of science, should have been read by so many thousands in this country, and should have been taken seriously by educated men, physicians, teachers, and even professors of science who want to know the history of their own sciences, only shows how easily even supposedly educated men may be led to follow their prejudices rather than their mental faculties, and emphasizes the fact that the tradition that there is no good that can possibly come out of the Nazareth of the times before the reformation, still dominates the intellects of many educated people who think that they are far from prejudice and have minds perfectly open to conviction.

In God and Nature (1986), David Lindberg and Ronald Numbers report that "White's Warfare apparently did not sell as briskly as Draper's Conflict, but in the end it proved more influential, partly, it seems, because Draper's strident anti-Catholicism soon dated his work

and because White's impressive documentation gave the appearance of sound scholarship". During the 20th century, historians' acceptance of the conflict thesis declined until rejected in the 1970s. David B. Wilson notes:

Despite the growing number of scholarly modifications and rejections of the conflict model from the 1950's ... in the 1970s leading historians of the nineteenth century still felt required to attack it. ... Whatever the reason for the continued survival of the conflict thesis, two other books on the nineteenth century that were published in the 1970s hastened its final demise among historians of science ... 1974 ... Frank Turner ... *Between Science and Religion* ... Even more decisive was the penetrating critique "Historians and Historiography" ... [by] James Moore ... at the beginning of his *Post-Darwinian Controversies* (1979).

In his course on science and religion, historian Lawrence Principe summarizes Draper's and White's works by saying, "While we can look today with astonishment upon the shoddy character of Draper and White's writings, their books have had enormous impact, and we can't deny that. Much of this is due to their great success in their creating a myth for science as a religion. Their myth of science as a religion is replete with battles, and martyrdoms, and saints, and creeds. And as we know, or should know, myths are often much more powerful than historical realities."

In the coursebook, Principe writes, "No serious historians of science or of the science-religion issue today maintain the warfare thesis...The origins of the warfare thesis lie in the late 19th century, specifically in the work of two men - John William Draper and Andrew Dickson White. These men had specific political purposes in mind when arguing their case, and the historical foundations of their work are unreliable." *Principe, Lawrence M. (2006). Science and Religion. The Teaching Company. p. 7.*

Regarding the scholarship of Draper's work, Principe says

How does he [John William Draper] support his contention of conflict? Well, unfortunately, with some of the worst historical writing you are ever likely to come across. Historical facts are confected, causes and chronologies twisted to the author's purpose. We find interpretations made merely by declaration. We find quotations violently taken out of context. And instances, quite a few of them where Draper claims a historical writer said something in fact 180 degrees away from what he actually claimed...Much of Draper's book is so ridiculous, so malodramatic, so rabid, it's hard for a knowledgeable person actually to read it without a wry smirk...Let's start with a simple and a notorious example: the idea that before Columbus people thought that the world was flat. Well, in fact, it is Draper and White, specifically, both of them, who bear most of the blame for popularizing this baseless view to the extent that nowadays, 80 percent of school teachers still foist this upon poor innocent school children. The fact is that of course the sphericity of the Earth was well established by the fifth century BC by the Greeks, and a good measure of its circumference made by the third century BC. And these facts were never forgotten in learned Western Culture.

Principe's summary comment on Draper's work at the end of his coursebook reads: "The book that started the conflict myth. Take a sense of humor and/or a stiff drink with this dated bit of melodrama."

Modern views

Academic

Historians of science today have moved away from a conflict model, which is based mainly on two historical episodes (those involving Galileo and Darwin) in favor of a "complexity" model, because religious figures took positions on both sides of each dispute and there was no overall aim by any party involved in discrediting religion. Biologist Stephen Jay Gould said: "White's and Draper's accounts of the actual interaction between science and religion in Western history do not differ greatly. Both tell a tale of bright progress continually sparked by science. And both develop and use the same myths to support their narrative, the flat-earth legend prominently among them". In a summary of the historiography of the conflict thesis, Colin A. Russell, the former President of Christians in Science, said that "Draper takes such liberty with history, perpetuating legends as fact that he is rightly avoided today in serious historical study. The same is nearly as true of White, though his prominent apparatus of prolific footnotes may create a misleading impression of meticulous scholarship".

In Science & Religion, Gary Ferngren proposes a complex relationship between religion and science:

While some historians had always regarded the Draper-White thesis as oversimplifying and distorting a complex relationship, in the late twentieth century it underwent a more systematic reevaluation. The result is the growing recognition among historians of science that the relationship of religion and science has been much more positive than is sometimes thought. Although popular images of controversy continue to exemplify the supposed hostility of Christianity to new scientific theories, studies have shown that Christianity has often nurtured and encouraged scientific endeavour, while at other times the two have co-existed without either tension or attempts at harmonization. If Galileo and the Scopes trial come to mind as examples of conflict, they were the exceptions rather than the rule.

Some modern historians of science (such as Peter Barker, Bernard R. Goldstein, and Crosbie Smith) propose that scientific discoveries - such as Kepler's laws of planetary motion in the 17th century, and the reformulation of physics in terms of energy, in the 19th century - were driven by religion.[24] Religious organizations and clerics figure prominently in the broad histories of science, until the professionalization of the scientific enterprise, in the 19th century, led to tensions between scholars taking religious and secular approaches to nature.[25] Even the prominent examples of religion's apparent conflict with science, the Galileo affair (1614) and the Scopes trial (1925), were not pure instances of conflict

between science and religion, but included personal and political facts in the development of each conflict.

Galileo



Galileo before the Holy Office, a 19th-century painting by Joseph-Nicolas Robert-Fleury

Main article: Galileo affair

The Galileo affair is one of the few examples commonly used by advocates of the conflict thesis. Maurice Finocchiaro writes that the Galileo affair epitomizes the common view of "the conflict between enlightened science and obscurantist religion," and that this view promotes "the myth that alleges the incompatibility between science and religion." Finocchiaro writes, "I believe that such a thesis is erroneous, misleading, and simplistic," and refers to John Draper, Andrew White, Voltaire, Einstein, Bertrand Russell, and Karl Popper as writers or icons who have promoted it. Finocchiaro also describes as mythical the notion that Galileo "saw" the earth's motion, since this direct observation was only possible in the 21st century, and the idea that Galileo was "imprisoned," since he was "actually held under house arrest." He notes that the situation was complex and objections to the Copernican system included scientific, philosophical, and theological arguments.

The Galileo affair was a sequence of events, beginning around 1610, culminating with the trial and condemnation of Galileo Galilei by the Roman Catholic Inquisition in 1633 for his support of heliocentrism. In 1610, Galileo published his Sidereus Nuncius (Starry Messenger), describing the surprising observations that he had made with the new telescope, namely the phases of Venus and the Galilean moons of Jupiter. With these observations he promoted the heliocentric theory of Nicolaus Copernicus (published in De revolutionibus orbium coelestium in 1543). Galileo's initial discoveries were met with opposition within the Catholic Church, and in 1616 the Inquisition declared heliocentrism to be formally heretical. Heliocentric books were banned and Galileo was ordered to refrain from holding, teaching or defending heliocentric ideas.

Pope Urban VIII had been an admirer and supporter of Galileo, and there is evidence he did not believe the inquisition's declaration rendered heliocentrism a heresy. Urban may have

rather viewed Heliocentrism as a potentially dangerous or rash doctrine that nevertheless had utility in astronomical calculations. In 1632 Galileo, now an old man, published his Dialogue Concerning the Two Chief World Systems, which implicitly defended heliocentrism, and was popular. Pope Urban VIII had asked that his own views on the matter be included in Galileo's book, and were voiced by a character named Simplicio who was a simpleton. This angered the Pope and weakened Galileo's position politically. Responding to mounting controversy over theology, astronomy and philosophy, the Roman Inquisition tried Galileo in 1633 and found him "vehemently suspect of heresy", sentencing him to indefinite imprisonment. Galileo's Dialogue was banned, the publication of his past or future works forbidden, he was ordered to "abjure, curse and detest" heliocentric ideas.[34] Galileo was kept under house arrest until his death in 1642.

Observations that favored the Copernican model over the Ptolemaic or other alternative models accumulated over time: the emergence of Newtonian mechanics later in the 17th century, the observation of the stellar aberration of light by James Bradley in the 18th century, the analysis of orbital motions of binary stars by William Herschel in the 19th century, and the accurate measurement of the stellar parallax in 19th century. According to physicist Christopher Graney, Galileo's own observations did not actually support the Copernican view, but were more consistent with Tycho Brahe's hybrid model where the Earth didn't move, and everything else circled around it and the Sun. Copernicus' work *De revolutionibus* remained on the Index of banned books until 1758.

Scientist and public perceptions

This thesis is still held to be true in whole or in part by some prominent contemporary scientists such as Stephen Hawking who has said "There is a fundamental difference between religion, which is based on authority, [and] science, which is based on observation and reason. Science will win because it works." Others, such as Steven Weinberg, grant that it is possible for science and religion to be compatible since some prominent scientists are also religious, but he sees some significant tensions that potentially weaken religious beliefs overall.

A study done on scientists from 21 American universities showed that most did not perceive conflict between science and religion. In the study, the strength of religiosity in the home in which a scientist was raised, current religious attendance, peers' attitudes toward religion, all had an impact on whether or not scientists saw religion and science as in conflict. Scientists who had grown up with a religion and retained that identity or had identified as spiritual or had religious attendance tended to perceive less or no conflict. However, those not attending religious services were more likely to adopt a conflict paradigm. Additionally, scientists were more likely to reject conflict thesis if their peers held positive views of religion.

Science historian Ronald Numbers suggests the conflict theory lingers in a popular belief, inclusive of scientists and clerics alike, and that while history reflects an intrinsic and inevitable intellectual conflict between (Judeo-Christian) religion and science, it is perpetuated by the polemics surrounding controversies involving creation–evolution, stem cells, and birth control. Many religious groups have made statements regarding the compatibility of religion and science, urging, for example, "school board members to preserve the integrity of the science curriculum by affirming the teaching of the theory of evolution as a core component of human knowledge. We ask that science remain science and that religion remain religion, two very different, but complementary, forms of truth." The Magis Center for Reason and Faith was founded specifically to apply science in support of belief in a deity and the Christian religion. Some scholars such as Brian Stanley and Denis Alexander propose that mass media are partly responsible for popularizing conflict theory, most notably the Flat-earth myth that prior to Columbus people believed the Earth was flat. David C. Lindberg and Numbers point out that "there was scarcely a Christian scholar of the Middle Ages who did not acknowledge Earth's sphericity and even know its approximate circumference". Numbers gives the following as mistakes arising from conflict theory that have gained widespread currency: "the Church prohibited autopsies and dissections during the Middle Ages", "the rise of Christianity killed off ancient science", and "the medieval Christian church suppressed the growth of the natural sciences". Some Christian writers, notably Reijer Hooykaas and Stanley Jaki, have argued that Christianity was important, if not essential, for the rise of modern science. Lindberg and Numbers, however, see this apologetical writing as lacking in careful historical study and overstating the case for a connection.

Research on perceptions of science among the American public concludes that most religious groups see no general epistemological conflict with science, and that they have no differences with nonreligious groups in propensity to seek out scientific knowledge, although there may be epistemic or moral conflicts when scientists make counterclaims to religious tenets. The Pew Center made similar findings and also noted that the majority of Americans (80–90%) strongly support scientific research, agree that science makes society and individual's lives better, and 8 in 10 Americans would be happy if their children were to become scientists. Even strict creationists tend to express very favorable views towards science.] A study of US college students concluded that the majority of undergraduates in both the natural and social sciences do not see conflict between science and religion. Another finding in the study was that it is more likely for students to move from a conflict perspective to an independence or collaboration perspective than vice versa.

The original article on Wikipedia has substantial footnotes and references.