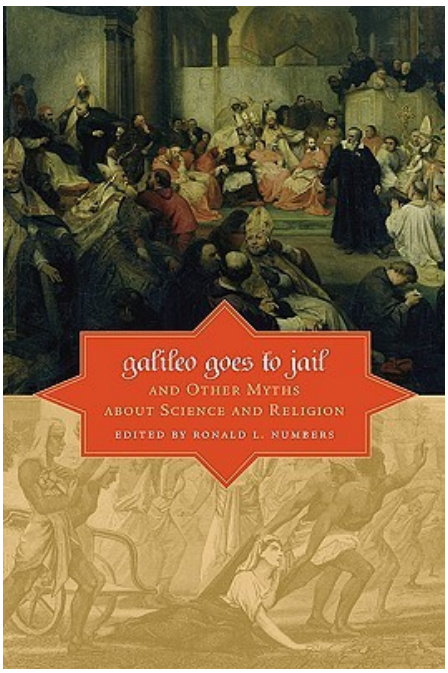

Galileo Goes to Jail: And Other Myths about Science and Religion

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If we want nonscientists and opinion-makers in the press, the lab, and the pulpit to take a fresh look at the relationship between science and religion, Ronald Numbers suggests that we must first dispense with the hoary myths that have masqueraded too long as historical truths.

Until about the 1970s, the dominant narrative in the history of science had long been that of science triumphant, and science at war with religion. But a new generation of historians both of science and of the church began to examine episodes in the history of science and religion through the values and knowledge of the actors themselves. Now Ronald Numbers has recruited the leading scholars in this new history of science to -puncture the myths, from Galileo's incarceration to Darwin's deathbed conversion to Einstein's belief in a personal God who "didn't play dice with the universe." The picture of science and religion at each other's throats persists in mainstream media and scholarly journals, but each chapter in *Galileo Goes to Jail* shows how much we have to gain by seeing beyond the myths.

Galileo Goes to Jail: And Other Myths about Science and Religion Details

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From Reader Review Galileo Goes to Jail: And Other Myths about Science and Religion for online ebook

Rodney Harvill says

This book is a compilation of articles by a variety of scholars, ranging from athiests to evangelicals to Muslims, who are trying to debunk what they consider to be myths about the conflict between science and religion.

The namesake myth pertains to the trial of Galileo on account of his correct belief in a heliocentric cosmology. The relevant article concedes that Galileo did go to trial and spent the rest of his life under house arrest. However, it debunks the myth that the church was anti-science. Rather, the trial was more a knee-jerk reaction in the context of its response to Reformation challenges to its dogmas and authority. Galileo was not a proponent of the Reformation, but he picked a bad time to advocate for a cosmology divergent from church doctrine.

The "myths" addressed in this book are:

1. That the rise of Christianity was responsible for the demise of ancient science
2. That the medieval Christian church suppressed the growth of science
3. That medieval Christians taught that the earth was flat
4. That medieval Islamic culture was inhospitable to science
5. That the medieval church prohibited human dissection
6. That Copernicanism demoted humans from the center of the universe
7. That Giordano Bruno was the first martyr of modern science
8. That Galileo was imprisoned and tortured for advocating Copernicanism
9. That Christianity gave birth to modern science
10. That the scientific revolution liberated science from religion
11. That Catholics did not contribute to the scientific revolution
12. That Rene Descartes originated the mind-body distinction
13. That Isaac Newton's mechanistic cosmology eliminated the need for God
14. That the church denounced anesthesia in childbirth on biblical grounds
15. That the theory of organic evolution is based on circular reasoning
16. That evolution destroyed Darwin's faith in Christianity - Until he reconverted on his deathbed
17. That Huxley defeated Wilberforce in their debate over evolution and religion
18. That Darwin destroyed natural theology
19. That Darwin and Haeckel were complicit in Nazi biology
20. That the Scopes trial ended in defeat for antievolutionism
21. That Einstein believed in a personal God
22. That quantum physics demonstrated the doctrine of free will
23. That Intelligent Design represents a scientific challenge to evolution
24. That creationism is a uniquely American phenomenon
25. That modern science has secularized Western culture

I don't agree with all the arguments in the book and feel that some of the articles resorted to hair-splitting. Yet, I found the book thought-provoking.

Lambda Moses says

What I appreciate the most about this book is that it presents evidence against both myths used by fundamentalist atheists, and those used by fundamentalist Christians. I already know that some of the myths are indeed myths, such as that Islamic science and philosophy ended with Al-Ghazali and that Copernicus demoted the Earth. However, while I'm a staunch theist, I have believed in myths favoring both ends of the religious spectrum, such as that Galileo was tortured, that Darwin ended natural theology (I mean something like William Paley's version of argument from design, but the term "natural theology" is very hard to define so I suppose I didn't understand the diversity within natural theology), and that Einstein believed in a personal God. I also changed my views on Newton, who I thought was simply illiterate enough in theology to propose God-of-the-gaps; he in fact was very well read in theology and had a more intelligent reason for believing that God must regularly "mend the clock" - "a being, however perfect, without dominion is not the Lord God". I have long been in favor of Leibniz (it's wiser for God to create a world that doesn't need to mended from time to time) when it comes to the debate between Leibniz and Newton, but now I should probably think more carefully. Rule for myself: Using myth to support a position I love is idolizing the position. Some of the articles also elaborated more on the myths I already don't believe in, such as the faith of Darwin. I also see how easy it is to be tricked by popular myths; even eminent scholars in the past fell for myths. This book is not very in depth, as there're so many myths to cover. However, it's enough to reveal the complexity of the historical events on which myths formed. As so much care is needed to discern the truth in history, if I'm really interested in a topic in this book, I should definitely not stop here, but look further, much further.

Christian says

The best part about this book is that it consists of interesting short chapters. The worst part is that is consists of short interesting chapters.

'Galileo Goes to Jail' tries to provide a contribution to the discussion of Science and Religion by addressing several myths, as the authors call them.

This opening sounds more negative than I mean it, as this book does deliver an exceptional overview of the subject at hand. Furthermore, a lot of notes at the end give the reader the opportunity to delve deeper into any given subject. However, the book suffers most from its format. The short essays do not give enough space for a deep discussion. This is especially noteworthy in the early chapters which could have been brilliant, if a single person wrote them. The repetitions could then be omitted and crossreferences to previous chapters inserted. As some myths cover the same timeframe or subject, it would have been more prudent to include fewer authors providing them with more space to develop their point of view on a given subject.

In conclusion, this book is good start of the discussion, but has to deal with certain setbacks. The content of most chapters is sound and sets many ideas people have regarding these themes right. However, I want to mention some myths that seemed a bit off to me.

Myth 4 talks about the notion of Islam being unfavourable to science. The thing is that I have never come across that claim - at least, when one talks about the Middle Ages. However, I have come across the idea that

Medieval Islam was absolutely superior to Medieval Europe. This is not even addressed, although Christianity's influence on science is given a balanced view. This leads to the amusing conundrum, how science in the Islamic World deteriorated, as the book neveer explains this.
Myth 21 debunks the idea that Einstein believed in a personal God. Again, I have hardly seen this claim. In fact, most of the time Einstein is cited positively in a religious context, the person using the quote does not hesitate to admit that Einstein believed more or less in Spinoza's Nature-God - not the God of Christianity.

Two more irked me for the similiar reasons. Myth 12 is about Descartes. According to the author, he did not originate the Mind-Body distinction and tries to blame this on Aristotle. Now I consider this to be wrong, but that is not even my main point. It could be summed up as: What has a philosophical question to do with Science and Religion? Whether you agree with the assessment the author makes is irrelevant, as it should not be in this book.

Myth 22 argues against the idea that quantum mechanics proves free will. My point remains the same. Whether or not this is true (for example, this time I agree) is irrelevant, because it does not add anything to the discussion.

Tapani Aulu says

Pääosin mainiota keskustelua erilaisista uskomuksista liittyen uskonnon ja tieteen "kaksintaisteluun". Erillisisissä artikkeleissa käsitellään Giordano Brunoa, Galileita, Darwinia ja monia muita tuttuja nimiä luonnontieteiden historiasta aina kvanttimekaniikkaan asti. Mitään erityisen mullistavaa kirjassa ei ole, mutta en tietenkään kaikkea aiheista tiennyt etukäteen. Käännös oli kehno, mutta hyvä että oli kuitenkin tehty.

Photovy says

Fairly debunks myths about Catholic Church being anti-science. It is actually pro-science.
The Galileo part is good to know because people think he was tortured or executed for his beliefs. He was not. It was not really what he believed but how he went about publishing his work. He was under house arrest and apparently lived a cushy existence.

Frank Peters says

This book includes a series of essays, each of which discusses a myth about science and religion. The information within this book is rather valuable, and I am very happy that I have read the book. The actual essays are mixed in multiple levels. With many authors from different backgrounds, the essays are not equivalent in terms of readability, philosophy, or science. Some authors write in a way that appears impartial, while others seem to take their subject personally. Then, some of the myths are shown to be totally false, while other myths have large elements of truth and are only declared myths, since the truth is more complicated. Thus, reading the list of myths could be misleading since they are not all myths in the same degree. Nevertheless, I would definitely recommend the book to anyone who is interested in the ongoing discussions and debates concerning science and religion.

Adam S. Rust says

Like most books that are collections of academic papers *Galileo Goes to Jail and Other Myths About Science and Religion* has papers of varying levels of quality. Unlike some other collections of academic papers, the quality papers (which are quite good) outweigh the bad papers (which aren't all bad, but don't accomplish the goal of rebutting their particular “myth”). Part of the strength of the collection comes from the book aiming at a unified target: the “conflict” thesis that permeates the popular understanding of the history of science. By clarifying the historical record, the book has the unintended benefit of clarifying that the debate is not about “science” and “religion” but “evidence-based reasoning” and “revelation-based faith”.

This collection's bête noire, the conflict thesis, holds that science and religion are perpetually in conflict and can never be reconciled. The introduction traces this thesis to the work of pro-science historians from the 19th century who had a bone to pick with religion in general and Catholicism in particular. The strongest essays show how this assumption distorts our understanding of the historical record and our understanding of science. The historical distortions caused by the conflict thesis are best shown by the essay on the Copernican revolution, the distortions to science are best shown by an essay showing how Darwin relied on evidence collected by Old Earth Creationists to reach his conclusions on evolution.

The essay on the Copernican revolution does an excellent job of showing that removing the earth from the center of the earth was not a demotion, but possibly a promotion. Being at the center in Aristotelean physics meant being the most material, and least impressive. If being at the center of it all was the best thing in the world, Dante wouldn't have put the Ninth Circle of Hell there. Additionally, the author skillfully uses passages from the writing of Copernicus had to deal with concerns about the demotion of the sun that resulted from it being in the center.

The essay on Darwin shows how the history of science can be used to rebut pseudo-science like Creationism. A common criticism of evolutionary theory from Creationists is that its reasoning is “circular”. According to Creationists, the evidence that proves evolution is true, such as the fossil record and the similarity of bone structures between species showing common ancestry, is also the evidence that is used to illustrate its truth.

Ignoring that this critique misconstrues science, it also misconstrues the historical record. The scientists who discovered the evidence relied on by Darwin were in fact Creationists themselves (albeit, Old Earth Creationists, as every educated religious person in the 19th Century was). The reason that Darwinism was so successful, not because it found evidence that fit its framework (which can lead to circular reasoning), but that it provided a framework that explained evidence, even evidence gathered by people who didn't agree with the conclusion.

Other essays, however, are not as persuasive. Sometimes authors made me wonder if the myth they were rebutting in fact had some truth to it. For example, I came to the book unaware of the “myth” that some religious people opposed the use of anesthesia in childbirth on religious grounds (the pain of childbirth being Eve's curse for eating from the Tree of Knowledge). The essay made me start to wonder if there might be something to it.

Apparently the first mention of potential religious opposition to anesthesia for child birth comes from a doctor who advocated for the idea, as a sort of “prebuttal” before the idea could take wing. Fair enough, but the author then goes on to quote later doctors who opposed anesthesia in a way that seemed to presuppose

anesthesia as somehow logically necessary for theological reasons, and the author's alternative gloss of the passages wasn't entirely persuasive. He then mentions that there was also a papal encyclical stating that there was no theological basis for opposing anesthesia in childbirth. For all the assertions by the author that there is no historical fire, there sure was a lot of documentary smoke.

Another weak essay, about Early Christianity's rise contributed to the demise of Classic Science suffered from a similar problem. The essay convinced me that out and out opposition to pagan learning was a gross oversimplification for most of the Early Church Fathers (Ireneus' attempt to keep Athens separate from Jerusalem to the contrary). It did provide quotes that indicated that Christian interest in pagan learning was purely for tactical reasons. Be knowledgable about the world, said Augustine, not because knowledge about the world is intrinsically good, but because it stops Christians from looking like idiots. That's not exactly a ringing endorsement of scientific awareness. Also the author offers no evidence for his assertion that the Patristic-era Christians were the largest contributors to scientific investigation in late Antiquity (in a way that Medieval Christianity most certainly did, as addressed in other essays).

Overall, *Galileo Goes to Jail* does a good job of showing that the conflict thesis is bad history. The thesis is bad because attempts to divide history into “good” scientists and “bad” religious people, when in fact for a significant part of the history of science these two people were frequently the same person. That having been said, there still remains a fundamental conflict once simplified labels of “science” and “religion” are stripped away. The conflict centers around how a person answers the following question: is evidence-based reasoning the best means for arriving at truth?

For a significant part of human history most people (including many heroes of science such as Galileo and Newton) would say “no”. For them, some things not only *can* be assented to by revelation-based faith, but *must* be assented to by revelation-based faith. This belief sits, to put it mildly, in uneasy tension with deliberative democracy's idea that the best public policy decisions are reached by evidence that is available to everyone at the table without personal revelation from a particular god or holy book.

Our current debates about global warming, science education, and innumerable other issues show that a significant portion of our population still thinks revelation-based faith is an effective tool for determining our collective future together. Any attempt to inquire into whether those assertions have any evidence to back them up is construed as an “attack” on their beliefs, rather than a good faith attempt to make the best decision on the best available evidence. One of the unintended virtues of *Galileo Goes to Jail* is that it clears away naïve concepts of “science” and “religion” that are at “war” and puts the debate where it should be: what is the best means for deciding how we are going to live together.

Brenton says

In the second half of the nineteenth century, Andrew Dickson White and John William Draper wrongly proposed that science and religion exist in a perpetual state of conflict. (One is reminded of Stephen Gould’s famous demarcation between science and religion as two non-overlapping magisterium.) Historians and scientists who adopted the White-Draper thesis consequently misread several famous episodes in western history in their attempt to confirm the thesis. Although White and Draper’s credibility as researchers has long been discounted, their thesis has proved resilient, filtering down into the popular conception through constant textbook repetition and oft-cited historical “myths” proposing a clash between church and science. Historian Ronald Numbers (author of The Creationists) has gathered an impressive list of scholars to set the record straight through their exploration of twenty-five “myths” concerning the relationship between science

and religion. Interestingly, twelve of the twenty-five contributing authors are atheists or agnostics; one is a Jew, one a Muslim, one a Buddhist, and one a Spinozist. The book can hardly be dismissed as creationist propaganda. The twenty-five myths discussed are as follows:

Myth 1. The rise of Christianity was responsible for the demise of ancient science.
Myth 2. The medieval Christian church suppressed the growth of science.
Myth 3. Medieval Christians taught that the earth was flat.
Myth 4. Medieval Islamic culture was inhospitable to science.
Myth 5. The medieval church prohibited human dissection.
Myth 6. Copernicanism demoted humans from the center of the cosmos.
Myth 7. Giordano Bruno was the first martyr of modern science.
Myth 8. Galileo was imprisoned and tortured for advocating Copernicanism.
Myth 9. Christianity gave birth to modern science.
Myth 10. The scientific revolution liberated science from religion.
Myth 11. Catholics did not contribute to the Scientific Revolution
Myth 12. René Descartes originated the mind-body distinction.
Myth 13. Isaac Newton's mechanistic cosmology eliminated the need for God.
Myth 14. The church denounced anesthesia in childbirth on biblical grounds.
Myth 15. The theory of organic evolution is based on circular reasoning.
Myth 16. Evolution destroyed Darwin's faith in Christianity—until he reconverted on his deathbed.
Myth 17. Huxley defeated Wilberforce in their debate over evolution and religion.
Myth 18. Darwin destroyed natural theology.
Myth 19. Darwin and Haeckel were complicit in Nazi biology.
Myth 20. The Scopes Trial ended in defeat for antievolutionism.
Myth 21. Einstein believed in a personal God.
Myth 22. Quantum physics demonstrated the doctrine of free will.
Myth 23. "Intelligent Design" represent as scientific challenge to evolution.
Myth 24. Creationism is a uniquely American phenomenon.
Myth 25. Modern science has secularized western culture.

Generally the chapters are balanced. Intelligent Design theorists will take umbrage especially with Michael Ruse in chapter twenty-three where he rejects Intelligent Design Theory as science. Ruse assumes a thoroughly materialistic definition of science, rejecting the injection of supernatural activity in the natural world. He is particularly offended by the Kansas State Board of Education's 2005 definition of science as "a systematic method of continuing investigation that uses observation, hypothesis testing, measurement, experimentation, logical argument and theory building to lead to more adequate explanations of natural phenomena." (213) He prefers limiting the domain of science to what Charles Krauthammer calls "naturalistic explanations for what we observe in the world around us." (213)

Creationists are likely to find fault with Nicolaas Rupke's rejection of the claim that evolutionists employ circular reasoning (Myth 15). A standard creationist argument concerns reciprocal dating patterns in geology and animal fossilization; evolutionists use fossils to date the rocks and rocks to date the fossils. Rupke counters this objection with the claim that a stratigraphic column existed in geology as early as 1820, a generation before Darwin proposed his theory. Fossils were therefore never used to date the geological column, but were discovered in previously dated layers. Rupke could have strengthened his argument had he demonstrated both how the column was dated in the 1820s, and whether the 1820s version has stood the test of time.

The majority of the chapters strengthen the case for Christianity. David Lindberg demonstrates in chapter one, that the Christianization of the Roman empire coupled with an overturning of pagan philosophies that were inimical to Christianity did not constitute a categorical rejection of classical philosophy, mathematics, and science. Further, critics of Christianity have appealed almost exclusively to Tertullian as an iconoclast of science, while ignoring significant endorsements of the scientific enterprise by numerous other church

fathers.
Similarly, in chapter two, Michael Shank laments, “the crude concept of the Middle Ages as a millennium of stagnation brought on by Christianity has largely disappeared among scholars familiar with the period, but it remains vigorous among popularizers of the history of science—perhaps because, instead of consulting scholarship on the subject, the more recent popularizers have relied upon their predecessors uncritically” (20). Ironically, it was the medieval period that gave birth to the university where most of Christianity’s critics now reside.
In chapter three Lesley Cormack answers one of the most persistent myths in the history of science: the notion that medieval man believed the world was flat. This myth was not invented by medieval thinkers but nineteenth-century scholars who projected it backward on the medieval mind in an attempt to discredit Christianity. The myth flatly contradicts numerous ancient and medieval documents, as Cormack carefully demonstrates.
Dennis Danielson’s defense of Copernicus in chapter 6 is delightful. In the history of science and religion no scientist’s legacy has been hijacked and maligned by atheists quite like Copernicus’. Supposedly, Copernicus attempted to demote man from the special place he occupied at the center of God’s universe. God, if He even existed, was so remote and the universe so large that He must care nothing for man. The modern atheist leaves the impression that Copernicus was “one of them,” a crypto atheist, a materialist in disguise. Danielson demonstrates that the standard atheist interpretation is off by 180 degrees. The medieval mind never suggested geocentricism equaled theological centricity. Geocentrists placed earth at the universe’s center because of its density (dense objects were associated with evil). As the heaviest object in the universe, it fell to the middle (Think of a bowling ball on a trampoline—only in three dimensions). Thomas Aquinas argued the earth was central because it is the “most material and coarsest (ignobilissima) of all bodies.” (53) Dante “placed the lowest pit of hell at the very midpoint of the earth, the dead center of the whole universe.” (53) Ironically, Copernicus’ cosmology was thought originally to improve the earth’s position! Copernicus brought about a promotion rather than a demotion of the earth in God’s creation. Galileo rejoiced that “it [the earth] was not the sump where the universe’s filth and ephemera collect.” (55) Kepler argued that the revolving earth enabled our greater discovery of God’s handiwork: “[Man] could not remain at rest in the center . . . [but] must make an annual journey on this boat, which is our earth, to perform observations. . . . There is no globe nobler or more suitable for man than the earth.” (55-56) Danielson concludes the “Copernican cliché”, that is, Copernicus’ supposed demotion of man and earth, did not appear until a century after his death.
Galileo Goes to Jail and Other Myths about Science and Religion should be a welcome contribution in the rewriting and improvement of the science narrative that was hijacked by partisan scholars in the nineteenth century.

Φειδ?ας Μπουρλ?ς says

Καλ?. ?νασκευ?ζει «μ?θους» ?λων τ?ν πλευρ?ν? «μ?θους», σ? κ?ποιους ?π? το?ς ?πο?ους ?λοι μας ?χουμε ?θισθε?.
(Δι?τι ? στενομυαλι?, ?πως ?π? τ?ν ?λλη κα? τ? ε?ρ? πνε?μα, συναντ?ται σ? ?λους το?ς χ?ρους, σ? ?λες τ?ς ?δεολογ?ες, σ? ?λες τ?ς κοινων?ες...)

Ollie says

It’s pretty commonly understood that science and religion never really got along and have been at each

other’s throats for centuries. Or at least that’s what convention would have us think. Ronald L. Numbers thinks differently and this book Galileo Goes to Jail and Other Myths about Science and Religion aims to “prove” otherwise.

While this isn’t the most scholarly researched book, Numbers does do a fair amount of research on each of these myths that he tries to disprove and used a good amount of resources to back up his claims. In addition, the sheer amount of myths that this book tries to bust is pretty large, which would normally be something to compliment an editor on.

However, in this case it works against this book for two reasons. For one, trying to cover so many topics in such a short amount of space (230 pages) leads to superficial analysis that at times feels half-assed and unconvincing. The editor might have felt that this was necessary in order to cover so many topics, but this leads me to my second issue with this book. And this is that most of these myths are pretty uninteresting. Sure, Numbers covers such interesting ones such as Galileo going to jail (which is one of the better chapters of this book), the church denouncing anesthetics for women giving birth, prohibiting human dissection, and that creationism is a uniquely American phenomenon, but like I said, he barely scratches the surface and the reader is left a bit blindsided. Especially because Numbers also pays attention to uninteresting myths such as that Giordano Bruno was the first martyr of science, that organic evolution is based on circular reasoning, and that the quantum theory demonstrates the doctrine of free will. Yes, these sound interesting but the way Numbers presents the quarrel it seems like there isn’t really much to each side’s argument. In addition, even though Numbers declares that he is an agnostic, his conclusions that the church never did anything wrong, never had a problems with any sciences and has actually been the largest proponent of research seem a bit biased.
Galileo Goes to Jail tries to do too much with too little, and as this becomes apparent, one cannot help but feel cheated.

Jimmy says

Absolutely excellent, scholarly, discusses a variety of questions over long periods of time and corrects many misunderstandings and misimpressions embedded in our cultural fabric that almost any history buff would have elided over in their own studies. The editor of the book; Ronald Numbers, and a number of the many contributors, including David Lindberg, Michael Shank, Lawrence Principe, Peter Harrison, John Hedley Brooke and others, are incredibly achieved historians of science and have each made crucial advancements in the history of science. All authors are learned in their material and outline a detailed picture of each period and ideas they address.

Some of the most excellent chapters include "That the Medieval Christian Church Suppressed the Growth of Science", demonstrating that the medieval period, to a good degree because of the Christian church, spurred enormous intellectual and scientific progress, with events like the establishment of the university and many discoveries such as William of Saint-Cloud's invention of the camera obscura to observe solar eclipses, Dietrich von Freiberg discovery of the mechanisms of how rainbows worked, Jean Buridan's continual development of the theory of impetus to explain "projectile motion, the acceleration of free- fall, and even the unceasing rotation of the starry sphere" (p. 26), etc. These natural philosophers (who can be termed 'early scientists' of course) lived and worked in an environment of freedom of thought into scientific inquiries, and by the end of the middle ages, the average literate citizen had more access to science than any other previous culture. Another excellent chapter is "That Copernicanism Demoted Humans from

the
Center of the Cosmos". It's often expressed that the heliocentric theory knocked us off from our grandstanding position at the center of the universe -- in fact, this is false, if not an inversion of the reality. The center, as it was believed back then, was the lowest, most crude part of the entire cosmos. Indeed, it was thought that at the very center of the Earth itself, as center as you could go, resided hell itself -- and away from the Earth, further up, away from, and "higher" than the Earth resided the heavenly worlds, the quintessence of matter, etc. Knocking the Earth from the center of the cosmos resulted in, if anything, a *promotion* of the status of the Earth.

Other wonderful chapters include "That Catholics Did Not Contribute to the Scientific Revolution", "That the Church Denounced Anesthesia in Childbirth on Biblical Grounds", " That Darwin and Haeckel Were Complicit in Nazi Biology", and "That Modern Science Has Secularized Western
Culture". All of these gather a strong grasp of the historical material and outline a careful, detailed reconstruction of the historical evidence based on a wide variety and force of sources and reasoning. The book does a good job at combatting the countless cultural myths of the defunct conflict thesis (i.e. the idea that science and religion have historically been antagonistic) and presents it in a series of short chapters -- an excellent and concise format for the topic they address.

Jimm Wetherbee says

Myth is a strong word that requires a certain amount of demystification before seeing how it applies to the subtitle of this commendable collection. As a literary form, a myth is a sort of cosmic story. To be much more specific than that simply indicates what sort of myth one would be talking about. So taken, what truth one might find in a myth lies behind the story, and that truth ought to be genuinely profound. Conventionally the idea of myth tends to weigh more on the aspect of something being a story or more broadly a fiction. In this sense myths are just dressed up falsehoods, with no deep meaning to be found. In Galileo Goes to Jail, myth finds a middle way. The myths dealt with here are stories that say more about story-teller than any relation the story may have to some truth, deep or otherwise. This subtle distinction is necessary because the in the various essays, the myths dealt with are not simply false. The stories may be true, but they don't support the moral the stories lead to, or they are mostly true, or partly true, or we really don't know the truth of the matter. Given the state of the debate on religion and science, a bit of subtly is a welcome thing.

The myth of myths in this case is Religion and Science are at war. If one is on the side of Science, every woe of humankind and every roadblock to progress can be laid at the feet of Religion. Those on the side of Religion counter either that Science is founded on Religion or that the general depravity found in society is caused by Science abandoning Religion. The essayists Numbers assembles, deal mostly with the stories Science tells. Unlike some myths, where the story teller is lost to us, Numbers is willing finger the original Religion-and-Science-at-War myth-makers: Andrew Dickson White and particularly John William Draper. Indeed, Draper comes up in at least seven of the twenty-five myths examined. This is not to say Galileo Goes to Jail is collection of religious polemicists. Most of the contributors are not believers and few that are, are actually conventional believers. However, most are either historians, historians of science, or philosophers of science who have entered this fray more than once.

If one starts with myth number eight—“That Galileo Was Imprisoned and Tortured for Advocating Copernicanism”—one moves from flat-out denial (Galileo was not so much imprisoned but under house arrest) to plausible support (the records indicate the plausibility of severe integration—i.e., torture) to casting doubt on such support (the records would also indicate that it was unlikely that Galileo was imprisoned and

that the same meticulous records of his state of health are inconsistent with his being recently tortured). The essay even provides a an explanation of how the myth may have come about. It would seem to started with Protestants as an argument that the Roman Catholic Church was superstitious, cruel and utterly unchristian. It would not take long for this to morph to Christianity being superstitious, cruel and unenlightened and then carried on to religion in general (and science by contrast, being enlighten and humane). This sort of careful parsing out marks all the essays in this collection.

Some myths seem to be have been inserted simply to counterbalance others. For instance, myths one through eight generally argue that neither early and medieval Christianity nor medieval Islam inhibited or suppressed scientific progress. This is followed up by myth nine “That Christianity Gave Birth to Modern Science.” It would seem that Numbers is not interested in presenting the false dilemma that either Christianity [or Islam, or Judaism, etc.] is opposed to science or is essential to it.

Some myths are exceedingly subtle. For instance, myth sixteen “That Evolution Destroyed Darwin's Faith in Christianity—Until He Reconverted on His Deathbed,” argues it was not evolutionary theory that destroyed Darwin's faith, but the existential loss he felt in the face of certain evils and certain dogmas—namely that of eternal damnation—that Darwin saw as offensive. The essayist, James Moore, is also keen to note that a number the clergy in the Church of England embraced Darwin's theory and were on friendly terms with him. Moreover that Darwin, being rather conventional continued to support his local parish. His general lack of antagonism with the the Church of England and his connection with Elisabeth Cotton, a.ka. Lady Hope in his latter days, plus Lady Hope's remarkably detailed account of his supposed deathbed reconversion, contributed to the latter half of this myth. We we know is that no one in Darwin's family knew of any such conversion until after Lady Hope sold her story.

It would not do to go through all twenty-five myths, but perhaps a listing of them will be enough to pique one's interest:

1. That the Rise of Christianity Was Responsible for the Demise of Ancient Science
2. That the Medieval Christian Church Suppressed the Growth of Science
3. That Medieval Christians Taught That the Earth Was Flat
4. That Medieval Islamic Culture Was Inhospitable to Science
5. That the Medieval Church Prohibited Human Dissection
6. That Copernicanism Demoted Humans fro the Center of the Cosmos
7. That Giordano Bruno the First Martyr of Modern Science
8. That Galileo was Imprisoned and Tortured for Advocating Copernicanism
9. That Christianity Gave Birth to Modern Science
10. That the Scientific Revolution Liberated Science from Religion
11. That Catholics Did Not Contribute to the Scientific Revolution
12. The René Descartes Originated the Mind-Body Distinction
13. That Isaac Newton's Mechanistic Cosmology Eliminated the Need for God
14. That the Church Denounced Anesthesia in Childbirth on Biblical Grounds
15. That the Theory of Organic Evolution is Based on Circular Reasoning
16. That Evolution Destroyed Darwin's Faith in Christianity—Until He Reconverted on His Deathbed
17. That Huxley Defeated Wilberforce in Their Debate over Evolution
18. That Darwin Destroyed Natural Theology
19. That Darwin and Haeckel Were Complicit in Nazi Biology
20. That the Scopes Trial Ended in Defeat for Antievolutionism
21. That Einstein Believed in a Personal God
22. That Quantum Physics Demonstrated the Doctrine of Free Will

23. That “Intelligent Design” Represents a Scientific Challenge to Evolution
24. That Creationism Is a Uniquely American Phenomenon
25. That Modern Science Has Secularized Western Culture

Summing Up: This is a compilation with which I have only a few minor qualms. The twenty-five essays recast each myth in a more nuanced light. This is in contrast with the latest crop of polemicists who wish for nothing more than to draw a bright line between participants and to simultaneously beat down their opponents, keep true believers true, and to win the wavering with bold but flawed rhetoric. Galileo Goes to Jail has nothing for such as these. They will either scorn it as pandering to forces of darkness or cherry pick the parts they find useful. For the rest of us, however, Numbers has assembled a very cohesive, thoughtful, and thought provoking collection.

Sarah says

Like many anthologies, this book was a mixed bag. The debunking of certain myths was very helpful, particularly "Medieval Christians taught that the Earth was flat," "Copernicanism demoted humans from the center of the cosmos," and "Descartes originated the mind-body distinction." The book may be worth a gander for those chapters alone. The more the writers got into twentieth- and twenty-first century live wire issues, though, the less helpful I found it. The Intelligent Design chapter, for instance, I found rather gratuitous and out of line with the rest of the book. Throwing around terms like "fundamentalist," "traditionalist," "freethinking," and even "creationist" is so often a recipe for disaster, sadly even when one is a historian...

Still, even the chapters on Scopes and global creationism had a few helpful points, and it's a useful book in a "troubling the waters" sense.

David says

This book is a collection of essays on various misconceptions in science and religion. The book has no discernible agenda -- it presents roughly as many difficulties with science-friendly myths as with religion-friendly myths. The collection of authors who contributed to the volume span the range from agnostic to practicing Catholic and mainline Protestant, also two evangelicals, one Islamic scholar and one Buddhist.

Some of the more interesting essays include:

1. "That Medieval Christians taught the Earth was Flat". The author of this essay points out that a spherical earth had been known since antiquity and was also well-known among educated clerics and scholars.

2. "That Copernicanism Demoted Humans from the Center of the Cosmos". The author points out that far from being demoted, early scholars grappling with the Copernicus-Galileo cosmology considered it an affront to elevate humans and the earth from the "filthy parts of the lower world" to being on a par with other heavenly bodies.

3. "That Issac Newton's Mechanistic Cosmology Eliminated the Need for God". To the contrary, this author points out that Newton specifically rejected the notion of a "clockwork universe".

4. "That Evolution Destroyed Darwin's Faith in Christianity--Until He Reconverted on His Deathbed". This author of this essay dissects and explodes both myths.

5. "That the Scopes Trial Ended in Defeat for Antievolutionism". This author describes how popular accounts of the trial, such as the play-movie "Inherit the Wind" missed the mark.

6. "That Creationism Is a Uniquely American Phenomenon". This author gave startling evidence of the recent explosion of support for creationism and intelligent design in the U.K., Western Europe and Australia. For instance, some 39% of the U.K. believe in creationism or intelligent design.

7. "That Modern Science Has Secularized Western Culture". This essay points out that studies of the percentage of scientists who believe in God have shown essentially constant levels of belief over nearly a full century.

Chuck says

Just an amazing read. In one sense, there are 25 (26 if you count the Introduction by Ronald Numbers) different essays worthy of careful reading and reflection. The end notes are a goldmine that allow you to do further reading and research, if you want to, on any of the topics.
