

# OpenTheo

## Why are science and God at odds? | Ted Davis

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### The Veritas Forum

PART OF A SPECIAL 6-WEEK SERIES | A recent survey from Pew suggests that 59% of Americans perceive science and religion as “often in conflict.” But, our second season guests have all seen their Christian faith and scientific pursuits work together. In this episode, we try to get to the bottom of this perceived conflict between science and God with our guest, Dr. Ted Davis, a historian of science and religion. Listen to hear how this perceived conflict began and how you can think about the compatibility of science and God going forward. Like what you heard? Rate and review Beyond the Forum on Apple Podcasts to help more people discover our episodes. And, get updates on more ideas that shape our lives by signing up for our email newsletter at [veritas.org](http://veritas.org). Thanks for listening!

### Transcript

(upbeat music) People are often told and often come to believe themselves that holding religious beliefs is not consistent with being a scientist or with being sort of a science nerd, the person who's very interested in science. And they think that science is kind of the be-all and end-all. And if scientists are saying it, it's true.

And if religions people are saying it, it's probably not true.

(upbeat music) Can you think of someone you know who takes both science and religion seriously? Maybe you can, but if that's challenging for you, you aren't alone. The idea that there are two camps of people, the scientists on the one side and the religious people on the other, is a common belief in the United States.

In fact, research from Pew says that 59% of US adults perceive science and religion as often in conflict. So far in this season, we've been talking with researchers and scholars whose work reflects a different story. Their faith encourages them in their studies, provides them with helpful frameworks, and allows their research to thrive.

And on the flip side, their research bolsters their faith, gives them insights into the

depths of God, and causes them to marvel at the wonder of creation. So what's going on? Where did this perceived conflict come from? And why has it been accepted by so many Americans? For this episode, I invited one of my friends who knows a lot about this conflict and how it came about. His name is Ted Davis, and he's a historian of science.

He and I sat down to have a conversation about this concept that historians call the conflict thesis. While there are a lot of factors that contribute to the conflict thesis, there are two pivotal people who helped champion this idea in the United States in the late 1800s. The first is John William Draper, a chemist at NYU.

And second, Andrew Dixon White, the founding president of Cornell University. And despite some meaningful historical inaccuracies in their work, Drapers and Whites arguments are still accepted and found in our society today. Coming up, we touch on Draper and White, and the state of the relationship between science and religion before conflict was introduced, as well as what relationship we might have today with science and God.

(upbeat music) This is Beyond the Forum, a podcast from the Veritas Forum and PRX that explores the ideas that shape our lives. This season, we're talking about the intersection of science and God. I'm your host, Bethany Jenkins, and I run the media and content work at the Veritas Forum, a Christian nonprofit that hosts conversations that matter across different worldviews.

- My name is Ted Davis, I'm a historian of science. My training originally was in what we used to call the scientific revolution. Some people still use that term I do too.

That really means a period between Copernicus and Newton when modern science is put together. Secondly, I study American religion and science since 1800, especially in the 20th century, but also in the 19th century. And then the vertical interest that I have is in the history of Christianity and science broadly from the earliest years of Christianity down to our own day.

- How did you become interested in the history of science in particular? - Well, I didn't know at first that I was gonna have that kind of an interest. When I went to university, my personal interests were changing, I began to discover humanities more, but I knew I wanted to be an astrophysicist. I also knew I hated the humanities and that turned around.

And then I also knew I would never teach and clearly that turned around too. - Well, Ted, I don't know if you know this, but only 27% of people work in a field related to their major. So my major was Spanish and international studies and I even have a law degree.

And I don't practice law or speak Spanish much on a daily basis. So we are in the majority of the club by being in the 70 plus percentage of people who don't work in a

field related to their major. Although you actually do work in a field related to your major, even though it's a different angle.

- Yeah, once you learn how scientists think, which is what you do when you're an undergraduate science major, you learn how scientists think. You don't really forget that.
- So I actually grew up loving scientific subject matters in class.

I took three years of chemistry in high school. I took physics as an elective in high school. I took biology and then I went on to college and took an interdisciplinary core with natural sciences.

And this entire time, I was also a Christian and I never saw or felt in my childhood or in my formative years, a tension between Christianity and science or religion and science. And I was surprised to discover several years ago that many people do. I'm curious when you encounter students there or when you encounter people in whatever you speak or you write or any engagements you have, how common is that belief that there's a conflict between religion or Christianity and science? - Oh, it's very widespread.

It's widespread in our culture, not just among my students. It's widespread among popular media and in books. So it's all over the place, I would say.

- Can you describe it a little bit? What is the conflict that people see that you encounter quite often? - Well, people are often told and often come to believe themselves that holding religious beliefs is not consistent with being a scientist or with being sort of a science nerd, the person who's very interested in science. Many people are kind of science followers in our culture. They have an interest in science, even though they might not have studied it at university.

And they think that science is kind of the be all and end all. And if scientists are saying it, it's true. And if religions people are saying it, it's probably not true.

- And is it on both sides of the conversation that some people who are on the religious side or skeptical of science? And then there's also people on the science side or they're skeptical of religion? Is it, or is it one-sided? - Yeah, in that sense, it's two-sided. But the insights of the scholars that I work with on doing the history of Christianity and science and history of science and religion more broadly are that there aren't just these two perspectives. And that much of that modern attitude is driven by things from the past where there was an ideological agenda that resulted in this particular viewpoint that so many hold today.

- Can you talk to me a little bit about that past? - Yeah, we often call this as historians, we often refer to what we call the conflict thesis. The conflict thesis makes the claim that Christianity or religion more broadly is in perpetual ongoing conflict with science. That's sort of the broad way to express it.

And when you dig down into it a little more deeply, I would say that there's probably at least two main forms of a conflict thesis. One of these I would call the soft form. The soft form is mostly historical in the nature of its claim.

It says that Christian theology, not religion per se, has always been obscurantist. It's always been holding back the progress of science. That's a view that gets popularized in the late 19th century in the US and in the UK.

These things are still widespread in our culture. The legacy of that has not gone away. That kind of is say a softer claim.

There's a stronger form that's more common today than it was in the past. That's a sort of new atheist claim. That's more philosophical perhaps than historical, although often history will come into it.

That's the claim that there's an inherent conflict between science and all forms of religion. On that view, religious belief of any kind is simply irrational. Richard Dawkins, for example, believes that the function religion has in the modern world is to motivate people to fly airliners into skyscrapers.

If that is what religion does, it's bad. We need to eradicate it. Science can be one of the tools to eradicate it on this view.

So their view is more that the implications of religion are bad, or is it something that's even broader than that? Because I'm thinking, for example, that some have said that a religion requires faith and what they mean really is blind faith and that science doesn't require faith. But of course it does. It requires faith that the laws of nature will work, that we can have a common language about the periodic table.

And so there are exercises of faith and science. And religion actually isn't blind faith either. There are some evidentiary realities to it, even if they may not be scientific evidentiary realities.

We also believe that history matters and other subject matters are serious considerations too. So I'm curious, what is that tension they're really getting at? What is it really rooted in a little bit? - Well, that harder form of conflict thesis, strong form, certainly does paint religion as something which is motivated just by blind faith. And Christianity historically has never been like that.

It's always been a religion based on historical evidence and based on the encounter with reality and taking a point of view on reality that others don't take. - Hi all, this is Carly Regal, the assistant producer of Beyond the Forum. If you're loving the podcast so far, we wanna invite you to continue engaging in these important conversations by signing up for our newsletter.

Each month you'll receive thoughtful content about the ideas that shape our lives, updates from our student and faculty partners and other Veritas news and events. You can sign up today by visiting [veritas.org](http://veritas.org). Thanks for tuning in and enjoy the rest of the show.

(upbeat music) - When we first met, I was surprised to discover, it wasn't until a couple of years ago that this conflict thesis, this pitting science against religion or Christianity, was some people may call it manufactured, that a couple people basically decided we want to advance this agenda.

And it wasn't really inherent necessarily to how people thought at the time. It was a little bit disruptive or maybe it wasn't disruptive. I'm curious what was kind of the American sentiment? - Well, let's go back a long way in history before even the word America was invented in the 16th century.

And for much of Western history, Christianity and science were seen as partners in the search of truth. We tend to forget that the Roman Catholic church, for example, played a crucial role in creating the university. We also tend to forget that nearly all the founders of modern science, that's that period of Copernicus to Newton, were sincere Christians.

As a general rule, they didn't believe that science conflicted with theology. Not even Galileo believed that. Galileo always held that God reveals to us through revelation in the Bible core truths about salvation that reason alone and experience can't discover.

And he didn't think that his scientific discoveries contradicted the Bible when properly interpreted. - And by Copernicus to Newton, we're talking a period of about 200 years, right? 1400s to 1600s. - That's right.

Copernicus is working in the 1500s, early to mid 1500s. He becomes famous only after his death because his book isn't published until literally he is on his deathbed. It's right at the end of his life that the book is published.

And that's in 1543. And Newton's famous work on physics is 1687. And it's not really widely accepted until the next century.

So it is a period of a little more than 150 years that we're talking about there. - So no conflict at all, really. - Generally speaking, no, no, really wasn't.

Now there's isolated incidents in which religious issues come into play and there's some tension created. I mean, an example of this is when at those universities in the first century of their existence, as they begin to teach certain teachings of Aristotle, such as that the world is eternal, or that there is no soul that survives death, or that God does not have the ability to create more than one world. These kinds of propositions do conflict with some fundamental Christian teachings.

And as a result, at a few of the universities in the high Middle Ages, people aren't really allowed to say those things, even though Aristotle would have said things like that. So the conflict notion as a widespread idea probably is given birth mostly in the 18th century enlightenment in the wake of that scientific revolution. The Enlightenment thinkers tended to see mathematics as the paradigm for all other knowledge claims, the source of ultimate truth, real certainty could be achieved.

And in contrast with that, the previous two centuries, the 16th and the 17th, in the wake of the Reformation, there was a period of great theological disagreement amongst the branches of Christendom, controversies over what's true, right, in theology that creates a lot of doubt. Also, there were religious wars that really frankly had secular political forces right below the surface in which people killed one another over matters of faith ostensibly. So for these 18th century thinkers, those religious disputes just only showed that doctrine comes only from authority and tradition, not from reason and experience, right? A rational system of beliefs, they would have said, contain nothing mysterious or miraculous or supernatural.

- And on the religious side, is there not condescension on their side as well or is there, what is their perspective going on with this? - Well, it's true that there are some people who seem to engage in blind faith, people who just think that, well, you just believe, you just believe, and of course, that's an anti-intellectual attitude, that attitude that science is the ultimate and religion isn't good for science. That particular attitude did inspire a lot of false claims about the history of science and religion that are in their own right, gross errors. - So we get to the mid to late 19th century and we have these two guys kind of come on the scene, Draper and White.

Can you tell me a little bit about them, Ted? - Yeah, John William Draper was a famous chemist. He was actually responsible for taking the first photograph of the moon, one of the things, but he taught at what is now called New York University. He was elected the first president of the American Chemical Society, but he fancied himself an historian and he wrote all sorts of popular works about the history of ideas in the Western world, including a book called *The History of the Conflict of Religion and Science*.

Though primarily an anti-Catholic work that indicts the Catholic Church for abuses of power, it also makes the broad claim that the whole history of science is a narrative of two conflicting powers, which translate into science and religion. White was the first president of Cornell University, the founding president, and he was also the first president of the American Historical Association when that gets established a couple of decades later. So both of these two men are esteemed by their colleagues, famous in academic circles, and White ends up writing a book called *A History of the Warfare of Science with Theology in Christendom*.

So those two books have similar titles, not identical titles, but they have a common

agenda here, and that is the common agenda is that science is progressive and traditional religion is obscurantist or backward. - Now they were not necessarily non-religious people themselves, right? - Oh, not at all, actually White-- - What was driving their agenda? - They didn't like traditional Christianity, they thought it was backward, but they did believe in some type of God. In fact, White quotes Matthew Arnold, the English writer, as saying that there is a power that makes for righteousness, and White believed that was the basis of religion, and he also accepted love of neighbor and love of God, which of course is inspired by Christianity.

So he takes that as the essence of true religion. But all this theology stuff claims that Jesus was the son of God or the Trinity or the Jesus rose from the dead. Claims of this sword in White's opinion were just fanciful, and claims of that type conflicted with science.

And if not abandoned, would hold back the progress of science and of civilization. - Oh, but his stake in it really was about Cornell, right? - Right, right. Well, that predates his establishing Cornell, but he brings that religious attitude with him to Cornell.

He actually wants a non-sectarian chapel at Cornell, and it's still there today. But he founded Cornell as a result of funds that become available to the states from the federal government during the Civil War, something called the Land Grant Acts, which establish a new kind of educational institution that will go beyond the liberal arts and add engineering and agriculture and practical things to the education at the core. And so in New York, they have a fight in the legislature about what to do with this money, and who should do this, and how should it be done, and White's political position, because at that time he's a senator, he's in charge of the education committee in the New York Senate.

He has these prior beliefs about how Christianity isn't very helpful, how traditional Christian belief is not very helpful in the modern world. And he wants to establish the first non-sectarian university in the state of New York, which he gets done through political maneuvering. So he's able to see that this money goes to a brand new university, and a friend of his name Ezra Cornell, who's made money in telegraph industry, basically a dot com millionaire, 19th century style.

He comes in and he helps fund it too with a significant private gift of funds to Cornell University, which then bears his name. And White thinks this university would be an asylum for science, he says, where it's not cut to fit any given religious doctrine. - And that was very unique at the time.

- Well, it was unique in New York. There were non-sectarian institutions already, like University of Virginia, founded by Jefferson and University of Pennsylvania, which Franklin helped to found. But they were rare in the United States at this point in time and non-existent in New York.

- Okay, it was like 1865 was basically when Cornell was founded. He might have held those thoughts privately, but he really made them public when he went down to New York City at Cooper Union, right? - He's just been installed as the Cornell president. And it's in 1869 that he gets the chance to give the first talk in a brand new series to public lectures about science, which are in this big auditorium, famous auditorium, an auditorium that Abraham Lincoln had spoken in in the 1860 political campaign.

And so White comes along and gives a talk called the battlefields of science, then outline of the sacred struggles for the liberty of science, a struggle which has been going on for so many centuries. And he gives people three big lies in the course of this talk. One of them is he says that Nicholas Copernicus had escaped persecution only by death.

What he meant by that was if Copernicus hadn't died as his book was being released, the Catholic church would have persecuted him, which is garbage. And if anything, Copernicus was a quiet person who didn't want controversy. He knew people would think his idea of the moving earth was absolutely crazy.

And he didn't want to be laughed at. A second lie was that the anatomist Vesalius who did a lot of dissection at the University of Padua in Italy, that in his day it was unheard of to do this and the dissection of the human body was considered a sacrilege. Well, that's ridiculous because Italian universities and other universities in France and other places had been doing dissection for 200 years without any objections from the church.

And a third big lie was about Magellan, that Magellan's voyage around the earth proved the earth to be around. Any educated person knew that in the 1500s. It wasn't a question at all.

- And what's his motive for wanting to make this bigger, like beyond himself and what he's doing at Cornell? - Well, it, again, it comes out of this belief of his that traditional faith is backward and that you need a new kind of religious faith to be a forward progressive thinker. He calls for a new warfare of science, that's the term he uses. He says, "One in which religion and science shall stand together as allies rather than enemies in the fight for truth, justice, and goodness." So this idea of his is that traditional faith can't do that for you, that it can only hold back progress and you need a different kind of religious faith moving forward.

Faith that's oriented toward moral action, that's motivated by love for God and neighbor. I mean, those are good things, but you must get rid of all that ridiculous theological baggage before you move forward. - And what about Draper? What's going on with him? - Well, he was a vitriolic anti-Catholic and for personal reasons that I really don't have time to explain well here.

And he thought that the Catholic church was sort of the locus of evil in the modern world. And now religion in general, any religion in general that made specific truth claims



of similar to Catholicism could also be problematic, but he particularly had it out for Catholicism with the way in which he believed political power and theological authority had been united in the history of the world and had done nothing but bad things. - So if most historians of science believe this conflict has been manufactured, so then why did it persist? Why did it take root back then? And then why did it persist even to this day? - Well, I think it has to do with a couple of things.

One is the story of higher education and both in England and America and in the period of the second half of the 19th century, education was becoming profoundly secularized. Universities and colleges were no longer under close clerical supervision. For example, when Darwin went to University of Cambridge in the late 1820s, at that time you had to be an Anglican, either to be a student or a faculty member at Cambridge.

Now that all changed in the 19th century and there was no religious test at all, of course, for Cambridge today. But control of education was being rested from the clergy and being placed in more secular hands. And this narrative buys into that.

And another factor is I think that among scientists and among science junkies, the narrative is popular because it tends to self-aggrandize. It tends to elevate science into the ultimate arbiter of truth over other types of knowledge. And for many people, I think that's in the background, even if they might not be in the foreground, they might not see that directly.

I think that's part of the story. - What about on the religious side that people are skeptical of science? - For the most part, we can't find religious faiths as collectives that believe they're in conflict. In other words, most religious communities that object to one type of scientific claim or another are doing so by saying that science isn't true.

It's false science. So for example, in the United States, since the early 19th century, one piece of science or another has often been referred to as false science using a verse in First Timothy, which warns about vain babblings and science falsely so-called. That very scripture has been invoked by a lot of Americans to identify either natural history in general or specifically evolution more narrowly as false science, it's not been demonstrated to be true.

And so real science can't conflict with Christian faith. Only false science can't. That's a common attitude when finds among religious believers.

- So going forward to today, if the relationship between science and religion isn't one about conflict, then what is the way forward? - Well, I can only speak personally here. Now I am speaking as a historian of science. I believe what I'm gonna say is defensible historically, but here more personal analysis will come in.

My own view is that the biblical notion of a creator, the doctrine of creation, if you will, is

actually highly conducive to doing good science. The biblical notion of creation is essentially the notion that there's this reality that is created thoughtfully and it is created in an orderly fashion because God is an orderly God and that we humans sharing in the image of God have a piece of God's reason, if you will, planted in our minds and therefore we are able to comprehend much of what God has created because we're imprinted in God's image. So the creator made the world in thoughtful patterns that we ourselves can uncover because in part, we share that God's rationality through our status as be creatures in the image of God.

So that's how I would say. That's a direct opposite of the warfare claim. In my conversation with Ted, I was struck by one of the reasons he gave for why the conflict thesis persists.

The narrative is popular because it tends to self-aggrandize. It tends to elevate science into the ultimate arbiter of truth over other types of knowledge. While Ted was talking about people in the scientific sphere, I think that this self-aggrandizement or triumphalism is found in those of us with religious beliefs as well.

We can be quick to stick to our camp and disregard the work and reasonings of those outside our tradition. But as we think about the way forward for conversation and collaboration between science and religion, I'm reminded of my interview with John Lennox for episode two. He suggested that one explanation might not provide us with the whole picture.

Why is the water boiling? Well, because heat energy is passing through the base of a kettle, agitating the molecules of water in a boiling. Yes, well, it's also boiling because I would like a cup of tea. That's a very simple example, but it's very important.

It shows that there are different kinds of explanations. There's a scientific explanation of the boiling water. And there's a personal agent explanation.

They don't compete, they don't conflict, they compliment.

(upbeat music) As we move forward, I invite you to consider what a complexity mindset rather than a conflict one could look like in your own life. Perhaps it looks like the faith of Francis Schafer.

Schafer was an American theologian, philosopher and pastor who died in 1984. He became a Christian in high school after he read Greek philosophy and realized it provided questions, but not answers to the problems of the human condition. Looking for those answers, he found Christianity.

Even in his early years as a Christian, he was convinced that Christians and non-Christians shared a commitment to truth and reality. The claims of Christianity, he said, were either true in the world of history and science or they were wrong. But the

relationship between science and God wasn't merely an intellectual or academic question for him.

And it isn't for us either. Many years later, when he was in his late 60s, Schafer was diagnosed with lymphoma and underwent chemotherapy. A year later, he received the news that his cancer was in remission.

And in a letter to a friend, Schafer wrote, quote, "How good it is to have a theology in which there is no tension between using the best medicine possible and looking directly to the Lord for answer to prayer. To him, the relationship between science and God wasn't either or, but both and."

(upbeat music) And speaking of Cornell, join me next week for the final episode of our season on science and God. I'll be interviewing Perveen Sethupathy, a geneticist and professor at Cornell University about what the tiny molecules of DNA tell him about life's biggest questions.

You won't wanna miss it.

(upbeat music) - Hi again, this is Assistant Producer Carly Riegel. To end our episode, we at Beyond the Forum wanna take time to say thanks to all the folks who have to get this show together.

Our first thanks goes to our guest, Dr. Ted Davis. Thank you for joining us and for helping us to learn so much, especially about the co-founder of My Alma mater. Thanks also goes to Colin Durya's, author of the biography we quote in our outro.

It's called Francis Schafer, An Authentic Life. We also wanna thank our production team at PRX. That's Jocelyn Gonzalez, Genevieve Sponseler, Morgan Flannery, and Jason Saldana.

And of course, we wanna thank the students who host and plan these forum conversations, as well as the John Templeton Foundation and all of our donors for their generous support of our conversations. All right, that's all for this episode. Thanks for listening to Beyond the Forum.

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