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Cosmic Chemistry: Do Science and God Mix? | Beyond the Forum edition

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The Veritas Forum

This program was recorded at a Veritas Forum event on Claremont in 2019. The original title was "Cosmic Chemistry: Do Science and God Mix?" and featured John Lennox Professor of Mathematics and Philosophy of Science and Mary Poplin Professor in the School of Educational Studies. If you enjoyed this episode, please rate, review, and subscribe. And, if you're interested in more content from Veritas, check out our Beyond the Forum podcast. Visit veritas.org to learn more about the mission of the Veritas Forum and find more resources to explore the ideas that shape our lives.

Transcript

Hi, this is Carly Regal, the Assistant Producer of Beyond the Forum, a podcast from the Veritas Forum and PRX. The Forum we are about to listen to is featured in Beyond the Forum's second season, exploring the intersection between science and God. We interviewed Dr. John Lennox, the presenter we're about to listen to, for episode two of our second season, and we talked with him about how to think logically about what we believe and where our faith lies, whether it be in God or something else.

You can listen to our interview with Dr. Lennox for Beyond the Forum wherever you listen to podcasts. And you can learn more about the ideas that shape our lives by visiting our website at veritas.org. Thanks for listening and enjoy the Forum. This is the Veritas Forum podcast, a place for generous dialogue about the ideas that shape our lives.

Newton's law of gravitation no more competes with God as an explanation of the universe than the law of internal combustion competes with Henry Ford as an explanation of the motor car. This is your host Carly Regal. Today I'm sharing with you a conversation at a Veritas Forum event at Claremont College in October 2019.

The speaker you will hear from is Dr. John Lennox of Oxford, and the moderator of the discussion is Dr. Mary Poplin of Claremont. They will discuss Dr. Lennox's book, *Cosmic Chemistry, Do Science and God Mix*. You can learn more about the Veritas Forum and

events like these by visiting veritos.org. I hope you enjoy their conversation.

Many of you will not know me, and every speaker has a biography. My biography in brief is that I come from a very small country where that had a period of extreme sectarian violence. My parents were very unusual in that they were Christian without being sectarian and got bombed for that stance.

My father ran a store, and he tried to employ equally Catholics and Protestants. And for that reason he was bombed, and my brother was nearly killed. But he did that because he believed that every man and woman, no matter what they believed, was made an image of God and therefore infinitely valuable.

And that's something that I got from my parents and has accompanied me all through my life. The second thing that they did, which was perhaps even more unusual in a country where there was a lot of religious prejudice and bigotry, they allowed me to think and encouraged me to read very widely, including worldviews that weren't my own. And as a boy, I got very interested in the big questions of life and the various answers that were offered.

And I went to Cambridge in 1962 just in time to hear C.S. Lewis, of whom some of you may have heard, and almost immediately got involved in serious discussion because, you know, in Ireland you'd meet Protestant atheists and Catholic atheists, but there weren't many real atheists. And in Cambridge I had the opportunity to be friend and I emphasized that word. People that didn't share my worldview, and I've been doing it for a lifetime because I'm interested in the truth.

And I want to understand about this world in which we live and its significance and what our place in it is. So I spent a lot of time traveling around the world and in particular during the Cold War. I spent a lot of time behind the Aaron Curtain and then when the war fell I've been a lot in Russia and Ukraine because I've been very interested to study cultures where atheism had a profound integral part of the culture because one of the things and it will come up tonight is the whole question of worldview.

And there aren't very many families of worldviews in fact. You've got atheism on the one side believing there's no God, theism on the other side believing there is a God and in the middle pantheism which believes that there is a God, but God and the universe tend to be merged into one impersonal being. And most people sit somewhere in there even if they've got a strong degree of skepticism.

And so what we're going to do is have a look at the whole question that I've called cosmic chemistry, do science and God mix, but there's a rather provocative subtitle because we need to ask this question the other way round, do science and atheism really mix? The popular impression here is that science and God do not mix and science and atheism mix so perfectly that really atheism is the proper background for intellectual

endeavor. And I want to challenge that and what I want to share with you because this is a vast topic are some of the things that I feel are important to think about. This is a kind of preliminary.

So it will be unsatisfactory, but if it prompts some of you and stimulates you to do your own thinking, then I shall be very encouraged. And I look forward immensely to your questions. So let's start off an observation of one of the most brilliant American philosophers still alive today, Alvin Plantinga.

The alleged conflict between science and theism is superficial. There is real concord. The alleged concord between science and atheism is superficial.

There is real conflict. How do you set about thinking about these kinds of questions? Well, I've always been interested in serious history. And I worked for a while with Professor John Hedley Brooke at Oxford, the Oxford's first Professor of Science and Religion, who was, said, is a brilliant historian of science.

And he taught me the way to go about these things is first to see them in their historical context and then look at the philosophical details. So if we follow that and have a look at some of the pioneers of modern science, we can think of the obvious names, Galileo, Kepler, Newton and Maxwell. And of course, as a mathematician, I have to quote Kepler, who said that the chief aim of all investigations of the external world should be to discover the rational order which has been imposed on it by God and which he revealed to us in the language of mathematics.

And it's very interesting when you study these pioneers to see what their worldview was. Now, one of the most interesting studies has been done by the historian Rodney Stark. And he lists 52 stars of modern science, starting with the publication of Copernicus's book in 1543 and dealing with scientists, all of whom were born before 1680.

And looking at that list, he discovers that 60% of them were devout believers, Christian believers. And one of them, Edmund Halley of Halley's comet, was a skeptic and an atheist, and because he was an atheist, Oxford would not give him a chair. So you can see that there's a very strong background of Christian belief behind the rise of modern science.

That is extremely important because philosophers and historians of science are agreed that there's a connection. And let me quote, you never have heard of this person, but I want to introduce him to you for a very simple reason. He's the only Irishman who ever won a Nobel Prize.

And he split the atom with Croft, so it was a fairly serious Nobel Prize. One way to learn the mind of the creator, he wrote, is to study his creation. We must pay God the compliment of studying his work of art.

And this should apply to all realms of human thought. A refusal to use our intelligence honestly is an act of contempt for him who gave us that intelligence. A Nobel Prize winner for physics, who was a believer in God, not in the 16th century, not in the 20th century.

And what that brings us to is the faith of scientists. Now this is a very important thing. I was introduced as speaking to you on science and faith, but that is an ambiguous suggestion.

Faith in what? You see, all scientists in order to do their science have to have faith, not in God, but in the rational intelligibility of the universe. And one of the main points I'm going to make to you tonight is everyone, without exception, is a person of faith. They have basic faith commitments.

They believe certain things. And the issue to be raised is one of the grounds for those beliefs. Now look at Lewis' summary of North Whitehead's work.

Then became scientific because they expected law in nature and they expected law in nature because they believed in the legislature. That is there's a strong connection with worldview. There is an intelligent creator.

Therefore, we ought to be able to do science because if our minds are rationally made in the image of that intelligent creator, at least in part we can unlock some of the mysteries of the universe. And that makes Pantinga's point very powerfully. The alleged conflict between science and theism is superficial.

But people are not happy with that because they sense there is a conflict somewhere and they're exactly right. There is a real conflict. The real conflict is not between science and God.

It's between worldviews, namely in the West, particularly the worldviews of theism and atheism. They clearly conflict. They're incompatible.

But the point to be raised is there are scientists on both sides of that conflict. So it cannot be a conflict between science and God. Think of Isaac Newton.

"Don't doubt the Creator," he said, because it's inconceivable that accidents alone could be the controller of this universe. Stephen Hawking, the late Stephen Hawking, occupied Newton's chair at Cambridge. God did not create the universe.

So there are two geniuses, both brilliant scientists. So science doesn't divide them. What divides them is their worldview.

And it's very important if we go to understand what's going on in the culture in the debate. It's not God on the one side and science on the other side. It's atheism on the

one side and theism on the other side.

And there are scientists on both sides. And so the real question you need to ask is, where does science sit? Does it point towards atheism? Or does it point towards God or is it neutral? But unfortunately, it is such a widespread impression that science and God are at war that I want to raise a series of questions as to what fuels that conflict. Why is it we got to this situation? Well, a couple of little things that are worth bearing in mind.

Firstly, statements by scientists are not necessarily statements of science. When Carl Sagan began his famous television series with a statement from a brand like this, "The cosmos is all there is, was, and ever shall be." That's a statement by a scientist. It's not a statement of science.

It's a statement of his philosophical belief. But the trouble is that scientists in our contemporary world, they have such authority that any scientist who makes a statement, people tend to think it's got the authority of science behind it. And we need to learn to distinguish.

And Richard Feynman, who won the Nobel Prize for Physics, made a marvelous statement that we need to listen to. I believe that the scientists looking at problems out of their field is just as dumb as the next guy. Now, that applies to me because you see, I'm not talking about pure mathematics.

I hope you've realized that already. And in that sense, in order to have a dialogue in public, we've got to go outside our fields. But there are certain things we've got to do if we do that.

Everybody has to do that. Otherwise, life would be very boring. But we've got to check if I move outside my field and make a statement, then I've got to check that it's got some sort of authority.

And I want to illustrate this by the book titled Richard Dawkins, *The God Delusion*, which is a bestseller. The word "delusion" is a psychiatric term. Now, when I first read the book, and I've read it many times in several languages in order to debate Richard, I noticed the word "delusion" is a psychiatric term and Richard is not a psychiatrist.

Now, that's very important to realize that. He's making a statement that God is a delusion. And I'm not a psychiatrist either.

So what do I do? I decide to read what psychiatrists say about this. And I discovered when I read the president of the Royal College of Psychiatrists at the time, Andrew Simmons, that he doesn't regard God as a delusion at all. And Dawkins is ignoring the actual scientific psychological epidemiological studies of the connection, the correlation between belief in God and human well-being.

Now, that's very interesting because Dawkins is claiming to be a scientist when he says these things. And many people were quite angry actually in their writings when they discovered that his work on this is not scientific at all. It falls apart.

Similarly, Stephen Hawking, this statement by a brilliant scientist. He was just ahead of me at Cambridge all those years ago. I remember him.

And he's like years ahead of me in his mathematical ability. But he said religion is a fairy story for those afraid of the dark. That's a statement by an astrophysicist.

But it's not a statement of science. And I was asked to comment on it by one of the newspapers, I think in which it was published one of our daily newspapers in the UK. So I asked them, did they want a one-liner? And they said, we'd love a one-liner.

And I said, OK, atheism is a fairy story for those afraid of the light. Now you see, you're clapping and you shouldn't really. Do you know why? Because the point I've been making is that these are statements by scientists, but they're not statements of science.

And behind them, of course, is the Freudian argument. And it's important to say something about that, because many students, when they read the God delusion, they think that's it. This is just Freud again.

Religion is a virus of the mind. We invent a father figure in the sky and so on and so forth. And it sounds very impressive.

And many of them just walk away from the whole issue. They shouldn't do that too quickly. Because the Freudian argument works in the other direction as well.

And one of Germany's most brilliant psychiatrists, Manfred Lutz, has written a little book, well, it's a big book actually. It's very wittily written, called "In a Kleine Geschichte discrest in a brief history of the great one." And then he says this, "If there is no God, then Freud's argument is brilliant, showing that religion is a durosis and wishful film and all the rest of it. It works if there is no God." But of course, if there is a God, the very same argument shows you that atheism is an illusion and a wishful film of the desire not to have to meet God and give a account for the mess you've made of your life and of others.

So he then gives the bottom line. The substantive question is, is there a God or not Freud can't answer that, a Norcan young or any of the other psychiatrists? And so it's very important to realize that this argument just falls. It doesn't deal with the question at all.

So having cleared a bit of the ground, let's look at three major areas that lead to the conflict. First, confusion about faith. Secondly, failure to recognize that science is limits.

And thirdly, the confusion about the nature of explanation. So let's look at faith. The new

atheist so-called, but they're not new anymore.

There are new new atheists these days, but I'm not going to talk about them. They got into such a muddle about the nature of faith that they started writing sheer nonsense. Atheists have no faith, says Dawkins in the God delusion, and yet the whole book is about what he believes.

And he doesn't see the irony of that. Peter Singer, atheism is not a faith. When I did my debate with Singer, I told the audience, and Melbourne, a huge audience, what I told you at the beginning, my parents were Christian.

He got up and he said, "Well, there we are." That's my big objection. People remain in the faith in which they were brought up. So when I got to the science to speak, I said, "Peter, you haven't told us about your parents.

Were they atheists?" They said, "Yes, they were." "Oh," he said, "You stayed in the faith in which you were brought up." "Oh," but he said, "isn't the faith." "Oh," I said, "Peter, I'm really sorry. I thought you believed it." And cyberspace went mad. Here's one of the world's leading philosophers from Princeton, and he doesn't realize that his atheism is a belief system.

That is intellectually very serious. And that's common because what has happened is this. When you use the word "faith," people think, "A, it's a religious term," and it means believing for there's no evidence.

Faith is not a religious term. It's an ordinary word in English that comes from the Latin few days from which we get fidelity. And when I say, "I believe X," or "I have faith in X," you have the right to immediately say, "On what grounds?" And if you have no grounds, then it's blind faith.

And the mistake that's made all the time is people have redefined faith as blind faith. It's even got into Webster's dictionary. Faith, noun, believing where there's no evidence.

And that just brings utter confusion and leads to statements like the statement of Christopher Hitchens. Our beliefs are not a belief. That is just nonsense.

And we need to get back to the fact that faith, let me repeat it, is an everyday word. It means trust. And we all know what evidence-based faith is since the financial crash.

We thought we could trust the bankers. And we found we couldn't. And it took a long time for trust to be built up in the markets.

You all know that. So we need to get rid of this idea that faith is some vague sort of concept, and it means believing where there's no evidence in religion. It's an ordinary word.

And of course, you get into the problem. Science uses reason and Christianity uses faith. That is absolute nonsense.

And Dawkins saying that faith being belief that isn't based on evidence is the principle vice of any religion. Well, other religions must speak for themselves. But it isn't the principle vice of every religion.

So if you go to the Oxford English Dictionary, you'll see things like I've said, what faith is, the fourth one, confidence, reliance and belief proceeding from reliance on testimony or authority. And the trouble is that this word is used in various contexts. It's used as a substitute for religion, the Christian faith, the Muslim faith, the Jewish faith.

And it's also used as my subjective response to something, I have faith I believe, etc. So science involves faith, as does every area of life. And if you don't believe science involves faith, read Albert Einstein.

Look at the highlighted bit. I cannot conceive of a genuine scientist without that profound faith. And what? Faith in the rational or mathematical intelligibility of the universe.

You can't do any physics or science without believing the universe is rationally intelligible. Why would you? There's no reason to. So it's very important to see that that's an essential part.

Now science, of course, claims evidence-based and that's absolutely right. But let me speak as a Christian for a moment. Christianity claims to be an evidence-based faith.

You can see that very easily from the statement at the end of the fourth gospel. Jesus did many other signs in the presence of the disciples, which are not written in this book. But these are written so that you may believe.

Science, semion and Greek, a pointer, an indicator, and John lists them as evidence on which faith can be based so that you might believe that Jesus is the Messiah, the Son of God, and that by believing you may have life in his name. Science claims its faith is evidence-based. Christianity claims its faith is evidence-based.

In that sense, there's no difference except, of course, the issues are bigger. Now standing in the way of this, you can have too much faith in science. What do I mean by that? I'm using science in the Anglo-Saxon way to mean the natural sciences.

If I was speaking as I was last week to a German audience, I need to be careful because in German, the word "visn shaft" means the natural sciences and the humanities. It is effectively rational thought full stop. And that's part of the confusion in the Anglo-Saxon world, that people will use science when they mean rational thought.

And we'll come to that in a moment. But scientism is the idea that science is the only way to truth. Bertrand Russell put it this way.

Whatever knowledge is attainable must be attained by scientific methods. And what science cannot discover mankind cannot know. That's a very foolish bit of logic, isn't it? Is it too late at night for logic? Is that statement a statement of science? No it isn't.

It's a statement of what he believes. So you cannot know it if science is the only way to truth. So if it's true, it's false.

So it's logically incoherent. Russell was quite a philosopher and mathematician, but his logic left him when he made that statement. You see, but it could mean something else.

It could mean rational thought is the only way to truth. But that's a very different thing from the natural sciences. I'm going to go into that in a moment.

I'm going to leave Christian to do without because we need to ask what do we mean by scientific explanation? Everything is explicable in purely natural terms. Secondly, and that was part of the previous quote, so I'll just quote it again. Christian to do, who's a Nobel Prize winner, says that that should be abandoned only a face with facts that defy rational explanation.

Now look at that very carefully. Science for him equals rational explanation, but that's completely wrong. If you mean the natural sciences because history is a rational discipline, philosophy is a rational discipline.

It's a political institution, a political institution, a political institution, a political institution. And it's a very important thing. I think it's very important to think about the natural sciences, the only way to truth, you'd have to close most of this place down.

And I don't think you want to do that because I think you believe you're engaged in rational activities. Now it's very important to cling onto that. Sir Peter Medowar was a very clever, brilliant Nobel Prize winning scientist.

And he says the existence of a limit to science is made clear by its inability to answer childlike elementary questions, having to do with first and last things. Questions such as how did everything begin, what are we all here for, and what is the point of living? And he goes on to say you can only get at these questions through literature, philosophy, and religion. He's right and every scientist I believe should read his little book on the limits of science.

So here's a scientist who says that the natural sciences are limited. But now we come to a very famous book, the Grand Design, Stephen Hawking, Leonard Noddenoff. And I was intrigued by this book because he starts off with this list of big questions.

How can we understand the world in which we find ourselves? How does the universe behave? What's the nature of reality? Where did it all come from? Why do we exist in all this kind of stuff? And Hawking claims that science can answer all of these. Well, he's wrong. As far as I and others see, science can only answer the second one.

If you mean the natural sciences. And that's a very odd thing. And I'm going to come to that in a moment.

But let us listen to Hawking on the second question. How does the universe behave? What does science show us? And one of his statements in the book is this, our universe and its laws appear to be designed that is both tailor-made to support us. And if we are to exist, leaves little room for alteration.

That is not easily explained and raises the natural question of why it is that way. The discovery relatively recently of the extreme fine-tuning of so many of the laws of nature could lead. At least some of us back to the old idea that this grand design is the work of some grand designer.

That is not the answer of modern science. Our universe seems to be one of many, each with different laws. So notice that he's impressed, calls the book the grand design.

So he sees, he perceives design and he explains it away by appealing to the multiverse. But please notice the method of argument, the old idea. That's what C.S. Lewis once called chronological snobbery.

If it's old, it's wrong. Well, I'm old, so I must be wrong. I mean, this is foolish actually to suggest it's a pejorative use of the word old.

This is not the answer of modern science. No, it's not the answer of some modern scientists. Modern science doesn't have a unified answer to this question.

There are several answers and so on. Well, let me quote someone who did win the Nobel Prize. Astronomy leads us to a unique event, a universe made out of nothing with the precise fine tuning which is necessary for life and which has one might say an underlying supernatural plan.

Arno Penzias, who discovered the microwave background that gave a lot of evidence for the idea of beginning to space time in the universe. So science, what I'm summing up here and I'm just giving you one example of it. Science contains certain pointers.

Natural sciences do not contain any proofs in the mathematical sense. Only in pure mathematics you get rigorous proofs. But in the sciences you get pointers and they can be very strong.

Let me give you an example. I've been married to the same woman for 51 years. I can't

prove to you mathematically that she loves me, but I'd stake my life on it because I think there's enough evidence to believe it.

You see that? So evidence, even though it's not mathematical proof, can be strong enough to risk your life. You do that every time you get in a motor car or in an aircraft. You trust the aeronautical engineering.

So we're well used to that kind of thing. So what I want to do is to come back to Hawking's big questions. And when I read them first, all this list of questions, I thought this is going to be fascinating to read how he answers them.

But then comes the great let down. Traditionally, since Hawking, these are questions for philosophy. But philosophy is dead.

Philosophy is not kept up with modern developments in science, particularly physics. Sciences have become the bearers of the torch of discovery in our quest for knowledge. Now that last statement is scientism, essentially.

Science is the only way to truth. But when I read that and then read the rest of the book, I started to laugh. To say philosophy is dead in a book which is all about the philosophy of science seems to be very curious indeed.

And of course, the Cambridge Department of Philosophy were very cross at this statement. As you can imagine, philosophy isn't dead. It may be dead sadly as far as Hawking and not enough are concerned, but it certainly isn't dead.

So we're dealing in an area where, well, this shows that Einstein was right. I always remember Einstein. He got a little voice in the back of my head.

The scientist is a poor philosopher. And many scientists know very little philosophy and yet talk a lot about philosophy, but they don't realize they're doing it. Philosophy is dead in the whole books about the philosophy of science.

They just don't see it. So let's focus this. There was Newton, believer in God, law of gravitation, one of the most brilliant scientists of all time without question.

And there's Stephen Hawking. Newton believed in God, Hawking, an atheist. Is it just time and the advance of science that has led to the change or is there more to be said? Well, I think there's a lot more to be said.

The problem is three things, false logic, false ideas about God and false ideas about explanation. And I won't have time to do it all, but let me have a look at false logic. Here is the central statement of the book, *The Grand Design*.

Because there is a law like gravity, the universe can and will create itself from nothing. What? Because there is a law like gravity because there's something. The universe will

create itself from nothing.

What's that, a flat contradiction? Because there is a law like gravity, it doesn't say because gravity exists, but what would a law of gravity mean if gravity doesn't exist? And if there is no material in the universe in which gravity acts and behind that there lies a huge problem. It's a confusion that laws are creative, but they're not, you know. The laws of nature that we formulate mathematically are descriptions of what happens, but they're not causes and they don't create anything.

Newton's laws of motion never moved a billiard ball, the history of the universe. They describe the motion once somebody with a cue causes it. And this is a huge confusion.

I once talked to Peter Atkins after a debate, I said, "Peter, I'd never met him before. The atheist, physical chemist at Oxford." I said, "What created the universe?" He said, "Mathematics." And I'm afraid I was rather rude. I confess that I started to laugh.

And he was angry. He said, "What are you laughing at?" Well, I said, "I really am sorry, Peter, but that's the silliest thing I've heard for a long time." He said, "Why?" Well, I said, "I am a mathematician." Let me put it this way. Two plus two equals four.

Did that ever put four dollars in your pocket? You see, Peter, I said the financial crash was caused by some people who thought that mathematics can create money. You may have met people like that. It's called creative accounting.

So we need to be careful about these things. The idea of laws creating the universe is just sheer nonsense. But it's worse still.

The universe will create itself. Well, if X creates Y, what does that mean? Roughly speaking, if you've got X, you'll get Y. If I say X creates X, what does that mean? Well, it means that nonsense remains nonsense even if scientists talk it. You see, this statement of hawking is not even scientific in the sense of being rational.

It's the heart of his argument for getting rid of God, ladies and gentlemen, and that's serious intellectually. When brilliant people write nonsense in order to get rid of God, that bothers me intensely because people accept it. They think that's it.

There is no God. And I wrote my little book, "God and Stephen Hawking," because a young man wrote to me. He'd been driving his car past the gas station.

There was a big placard saying, "Stephen Hawking says there's no God." And he was a Christian and he started to shake a young man without much formal education. And he wrote to me and he said, "Stephen Hawking says there's no God. Who am I, little me, to say there is?" So I wrote a book to answer it because this is nonsense.

But because he's brilliant and he wants brilliant. He will accept it. Now contrast that with

the biblical view.

The universe made from nothing. Well, the biblical view is that the universe is not made from anything physical. But it's created by God who's not nothing.

But God is spirit. And ladies and gentlemen, what we're faced in contemporary society is the choice between God and nothing. I give lectures these days on nothing because we got to that position where nothing becomes the source of everything.

And Lawrence Krauss is one of the people that did this in Arizona State University. And I read his book, "A Universe from Nothing," some of you may have come across it. Surely nothing he writes is every bit as physical as something, especially if it is to be defined as the absence of something.

Pardon? If you go on the internet, you'll hear me debating this particular phrase. That's your nonsense. And if that's the way you're getting rid of God, there may be no God, of course, but that's not the way to get rid of God.

And it bothers me. Now the next problem is the question of God. You see, many people I talk to think that my God's a kind of Greek God, the God of lightning, do a bit of atmospheric physics and you don't need that God anymore.

And they think that the God of the Bible is like one of the ancient Greek gods. Well there's a lot to be said about that. But let me just say that God is not a God of the gaps like that.

What the important thing is, and I didn't understand this in the debate for a long time, talking particularly saying you've got to choose between God and science. And I couldn't understand that until I realized that the God he's talking about is defined to be in competition with science. You see, if you define God to be the explanation for what science has not yet explained, then you have to choose between God and science as a matter of logic.

And I usually point out when that is said that the book of Genesis, how does it begin? In the beginning God created the bits of the universe we don't yet understand. Well not quite. He created the heavens and the earth.

That's the whole show. The bits we do understand, the bits we don't understand. And the interesting thing about Isaac Newton, Arnold, Penzia, Skepper and all the rest of them, it was the bits they did understand that pointed towards God.

That is extremely important. But let's move on to the notion of scientific explanation. Why is the water boiling? Well, because heat energy is passing through the base of a kettle agitating the molecules of water in this 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.

And I just wish I could get this across to many of my fellow scientists. Let me put it this way. Newton's law of gravitation no more competes with God as an explanation of the universe than the law of internal combustion competes with Henry Ford as an explanation of the motor car.

There are different kinds of explanations. And Dawkins is wrong when he suggests that the God explanation is equivalent to the science explanation, absolutely not. God as creator of the universe is the grounds for any explanation whatsoever.

We wouldn't have a universe to try to explain if God didn't invent it, but science didn't invent it. So there's a lot of stuff that needs to be separated out. Now the time is rapidly disappearing and I want to just make a final thing that goes back to the scientist's faith.

And often I challenge my fellow scientists and I say, "What do you do science with?" I do it with my brain. I do not believe the brain and the mind are the same, but that's a debate for another time. Let's say, let's agree with them, we do it with our brain.

So I said, "Tell me the brief history of the brain." And often they'll say something like this. The brain is the end product of a mindless unguided process. And I look at them and they say, "And you trust it." And I've done this with many people.

I said, "Look at this computer. If you knew that it was the end product of a mindless unguided process, would you trust it?" And I always force them to an answer. I've always, without exception, got the answer no.

And I said, "I see you have a problem, a real problem." You see, this has now moved into mainstream of the philosophical argument. So let's go. They often ask me where I get the argument because they say, "I'm not bright enough to think of it for myself, but that's okay." So I said, "I got it from Charles Darwin, actually." And that surprises them.

With me, he wrote, "The heart and doubt always arises, whether the convictions of man's mind, which has been developed from the mind of the lower animals, or of any value, or at all, trustworthy." And that leads Plantinga, and we'll go back to him to point out the deep conflict between science and atheism. If Dawkins is right that we are the product of mindless unguided natural processes, then he's given a strong reason to doubt the reliability of human cognitive faculties. This is Darwin.

And therefore, inevitably, to doubt the validity of any belief that they produce, including Dawkins' own atheism. One of the reasons I'm sitting here as a person who believes in

God is not because I'm a Christian, but because I'm a scientist. I find it impossible to espouse a philosophy that essentially reduces human rationality with which I need to do science to meaninglessness.

And what is most interesting is Thomas Nagel's *Take On This*, the philosopher of science in New York. He wrote a book with an explosive subtitle. I can scarcely believe it when I first saw it.

Mind and cosmos, why the neo-Darwinian view of the world is almost certainly false. And if you Google that and see the debate that is unleashed in cyberspace, it's really fierce. And his point is this.

If the mental is not itself merely physical, it cannot be fully explained by physical sciences. Evolutionary naturalism implies that we shouldn't take any of our convictions seriously, including the scientific world picture in which evolutionary naturalism itself depends. And this is so important because you and I are living in the so-called information age.

And the one thing that's true of information is that it is not material. It's often carried, as you see, on a material base. And the moment you see something information, which is hard to define, but just let it stand for the moment, the moment you see a word, you immediately know that whatever natural processes are involved in putting this picture up on the screen, there's a mind behind it, you immediately intuit that.

It's a perception that's automatic and universal. And Roger Sperry, another Nobel Prize winner, said, "The meaning of the message will not be found in the physics and chemistry of the paper and ink." And I've often confronted people with that question and held up a menu. And when they tell me they're a materialist, they're a reductionist, everything must be explained bottom up in terms of physics and chemistry.

And that must be true if there's no God, you know option. So I say to them, look at that menu and if it says roast chicken, I say, "Look, how do you know it's roast chicken?" Well, I've learned English. Okay, ROAS-T, five letters.

They're semiotic, they carry meaning. Now, you explain to me if you're a reductionist, you explain to me that word and it's meaning in terms of the physics and chemistry of the paper and ink. Nobody's able to do it.

And can't do it because they have to postulate mind. Now, if you have to postulate mind to explain that even though many physical processes are involved with a five-letter word, what are you going to do with this? Which is just about 3.4 billion letters in the right order. If you take the reductionist, materialist, atheistic view, I will say to you, you have a huge problem.

And this is one of the reasons why I'm fascinated by the Genesis account, simple

account, but it's brilliant, that talks about a word-based universe created in a sequence of speech acts and God said and God said and so on. This is profound stuff and I wish I had time to explain it to you. You may want to ask questions about it, but the critical thing that's being explained is that our universe is not a closed system, of course, in effect.

It's an open system into which God speaks. There's an informational input from the mind of God. You see, that means that as a scientist, one of the most resonant statements that makes sense of the world as I see it, the world of science is this.

In the beginning was the word. And the word was with God and the word was God. All things came to be through Him and without Him, nothing came to be that came to be.

If something comes to exist, we always ask for a cause. The universe came to exist, you came to exist. And what we've got to look for is an explanation that makes sense.

And I believe that the word-based universe idea makes perfect sense. But then that raises an even bigger question because the biblical claim is that the word became human and dwelt among us. That raises a series of huge questions.

It's the reason I'm a Christian. But then my talk tonight was on science and God. But you can ask questions about either of these two things.

Thank you very much indeed. What kind of evidence would you have to see in order to give up your belief in God? Well, I'd have to see refutations of everything I said tonight. I'd have to have better explanations, say, for the fine-tuning of the universe.

But my belief in God, and that's getting to the Christian bit really, depends on several factors. It's cumulative. Science helps, rationality helps, and all of that.

But I would have to have it proved to me, for example, to go right to the heart of it, that Jesus didn't rise from the dead, that my experience of God over 70 years nearly is simply a figment of my imagination. But I might come to some more evidences of that later when we see what the rest of the questions are. But the point behind the question is the Papyrian thing.

Is my faith in God falsifiable? Of course it is. Of course it is. There are things that could block.

But you see, the reason I'm sitting here is I've spent my whole life considering this question. So what you're saying is the fruit of years and years and years of making myself vulnerable to attack on some of it if you watch the internet is pretty fierce though. So I may pick that into some of the others, Mary, if you don't mind.

What kind of, okay, so here's another one. How do you reconcile evolutionary theory with

belief in a creator? How long have you gotten? Well, let me just say one or two things because often people regard evolution as an engine of atheism. Well, the first thing to settle is what exactly do you mean by evolution? Because there are at least five meanings to the word as I understand it.

I'm not a biologist, but I do read a lot of biology and I attend seminars and biology because I meet people that find this a real problem. So let me say one or two things. Only the beginning, I assure you.

We're dealing with life and two things about life. Its existence and its variation. And Richard Dawkins in a very famous book, *The Blind Watchmaker* said, and I quote, he says, "Natural selection, the blind automatic mechanism that Darwin discovered, is the explanation for, wait for it, the existence and variation of all of life." Half of that statement is absolutely false and Dawkins admitted it, but only after many years.

Let's get it straight once and for all. Evolution, whatever it does or doesn't do, cannot explain the existence of life. And the reason is obvious.

And depends on the existence of life to do anything. So it can't explain the existence of life. So the problem of the origin of life remains scientifically even harder than it did in 1953, for Miller and Yuri won the Nobel Prize because they claim to solve the origin of life by producing them.

I know acids are some of them in a test tube. So we got to separate those two things because they're crucially important. Now it's quite obvious that natural selection explains something.

Just look at us in this room, why do we not look the same? Because there's been selecting. There might even be some selecting going on tonight, but that's another matter. I'll not go into that.

And mutation has done something. I think it's about a third of us suffer from a mutation that will probably kill us at the end. So it's quite clear that what Darwin observed, brilliantly observed, particularly in his studies of Fitchbeaks and the Galapagos Islands was that the world's a big place.

And you can get variations because of isolation, all this kind of stuff. So natural selection mutation clearly does something. And I accept that because you can see it happening.

There is a more difficult question though. And it would take me a long time to go into this because listening to some of the leading biologists in the world, I see them asking questions about whether it does everything. That is in terms of variation, does nothing in terms of existence.

So the first thing we need to get absolutely clear is evolution has nothing to do with

existence of life in the first place. And the origin of life is not quite equivalent to, but the origin of information is part of it, the DNA molecule and all this kind of thing. And that has to be gone into because that interests me as an apatician.

And I have developed quite a lot of argument about that. And I am going to shamelessly advertise a little book I wrote some time ago called "God's Undertaker, Science Berry God," where I go into the arguments from the theory of information which lead me to believe that the origin of life must involve a mind. And it is a question not of the mind of the gaps.

That is very important. When you look up there and see those words and postulate a mind behind them, it is not a mind of the gaps. It's the only explanation that makes sense of what you're looking at.

That's exactly my position when it comes to the origin of information. Now another little thing. Evolutionary theory is biology.

Believing in God that's a worldview. And you cannot deduce a worldview from biology. Let me put that a bit more simply or a bit more clearly if I may do that.

You see, the existence of a mechanism that does something is not in itself an argument for the non-existence of a creator of that mechanism. Well, people say, evolution, whatever it does or doesn't do involves randomness in the generation of mutations, okay? So it can't have been designed, but just a minute. On my arm I have a watch that involves randomness.

It's a self-winding watch, one of the old-fashioned ones. Random motions of my arm wind it up. Therefore this watch has not been designed, really.

It's actually more cleverly designed than an ordinary watch. The point being this, we need to be very careful when we think that these mechanisms are so sophisticated, and I'm not making any comment here beyond this, that the existence of a mechanism is not in itself an argument for saying that there was no designer. Now evolutionary thinking splits essentially into two.

There's a Dawkins variety or the Dennett variety where they say, ah, ha, ha, ha, but evolution is clever. It designs without itself having been designed. But people like Francis Collins, the director of the National Institute of Health here, who's a Christian, he would disagree with that.

And he would say, this is a process that has been supervised by God. So there are two views of that, and you will find that there are many Christians who ascribe to certain levels of belief and evolution. I start at the base level, as I've said.

I think it accounts for some variation. My skepticism as a mathematician rises as you go

up. And I've written about that in my little book, *Seven Days of Divide the World*.

But the point is you cannot get atheism out of it. And I stick there because the details, although they're interesting to some people, they're not interesting to others, my faith in God doesn't rest in the solution of a biological theorem, although I have views about it. So we leave it there before I bore people to peers.

Okay. Okay, we have 16 people who want you to answer as the emergence of artificial intelligence foretold in the Bible. Is the emergence of artificial intelligence foretold in the Bible? Emergence is the word that bothers me.

What do you mean by emergence? Did human intelligence emerge? Because you see, the word emergence in science covers a whole lot of things. Did it emerge naturally? Did it emerge with a catalyst? Did it emerge through the application of an intellectual input? Etc. Well, coming back to the Genesis Accord, real human intelligence emerged in the sense of it emerged by a creative act of God.

So that's not the question, of course, artificial intelligence. Is it predicted in the Bible? Now, I'd be cautious in this because I've written a book about it. The first now question, the next question to ask is what do you mean by artificial intelligence? And there are mainly two kinds.

There's narrow artificial intelligence, which is the kind that we're using. All the time these days, and it has a lot of plus sides, particularly in medicine for rapid diagnosis. It has downsides in the surveillance economy and all the problems that are coming about through facial recognition being imposed on people.

And a lot of ethical questions need to be thought about. But that is narrow AI, which is really hefty computing power, working on big data to do something that normally requires human intelligence, some single thing. But then there's AGI, artificial general intelligence.

And the idea there, if you've read, for example, the book by Yuval Noah Harari, *Homo Deus*, where he says that the 21st century, the two big things that are going to happen are one, we're going to solve the problem of physical death as a technical problem. That's all it is. Secondly, we're going to enhance human happiness by reengineering human beings, either by silicon implants, by turning us into cyborgs or by upgrading us in some way.

And some of our leading sciences are taking this seriously. Now, the title of that book, *Homo Deus*, the man who is God, is very suggestive. And the irony to my mind, this could lead to hours of lecturing, which you're not going to get.

The irony to my mind is this, they are striving to produce a godlike human with superintelligence. Many of them are atheists. They don't realize there is a man who is

God, has already been on this planet.

But he's not artificial intelligence, ladies and gentlemen. He's real intelligence, the intelligence of God made incarnate. So what interests me about this whole thing is what people are moving towards is a parody of a scenario that is embedded in scripture.

That could be developed considerably. But read my book. Let's go to another part.

Actually, we don't have so much time, but I'll pick the number one here. Even if I accept your arguments as to the existence of God, for what reason should I believe this is a Christian God? Well, the question is perfectly justified. And I was asked to speak on science and God.

So that's what I've done. But you have perceived, and I have stated so, that I am a Christian. Well, I approach this in exactly the same way as I approach everything else.

It's a question to my mind of evidence. Now, let's do a bit of thinking at several different levels. Take the three major monotheistic religions, the Abrahamic religions.

And Christianity is love. They make statements and claims. Let's take the central issue.

The thing in which my Christian faith depends is not science, but it has to do with history and experience. And if we're going to get the grips with this question, we must realize that the world is bigger than natural science can reveal to us. That's the point of making the whole evening.

Natural science is wonderful, but it's limited. And I cannot answer these questions, but fortunately we have more tools at our disposal. And one of them is history, ancient history, and the other is experience.

So let's have a look at this. See those three religions. The central claim of Christianity is that about 20 centuries ago Jesus rose from the dead physically and has therefore broken the death barrier and solved Harari's problem, which is very interesting.

See, the problem of death has been solved. It doesn't need to be solved, but it's solved in a very different way from what the current AGI gurus expect. He rose from the dead.

Now, as a Christian, I believe that Jesus died and he rose again. My Jewish friends believe he died, but didn't rise. My Muslim friends believe that he didn't die.

He can't all be right. It's a question of evidence. They differ.

And we've got to face that and we've got to decide individually how we respond to that evidence. And so for me, Christianity, I first met it in my parents. And here comes singers of Jackson.

Of course you believe your parents were believers and your grandparents and all the rest of it. That is why I spent my entire life checking it out because I don't want to be fooled. I have taken the Freud argument very seriously, indeed, my whole life.

And that's why I've talked to people in different religions and so on and so forth. So there's that evidential historical site and history is very important. What do I mean by that? Well, going outside one's field as a mathematician or physicist or scientist, we've got to give credibility to people and other disciplines.

And when Dawkins says in his book, forgive me for using him again, but he's such a good example of this, he says a good case can be made out that Jesus never existed. Although to be fair, he says, I don't accept that case. And he quotes a professor.

But I looked up this professor. He's a professor of German. What a professor of ancient history.

You know, I couldn't, I can scarcely name a single professor of ancient history in the world who doesn't believe Jesus exists. And if you start to read, if you're a skeptical person, and I hope many of you are skeptical because I'm a born skeptic, to read what the ancient historians, some of the atheists, have to say about the reliability of the stories about Jesus we have in the gospel. It is mind blowing.

It really is mind blowing the evidence that's a mass there. So we can get evidence from these people, not in our own disciplines if we're scientists, but who are rational thinking people who may not even share a Christian worldview. So that's very important to me.

But there are two other factors that help me answer this question. You see, there's a question of what we mean by religion. And that's a very important question because I often ask people, what is a religion? And generally speaking, they'll say something like this.

Well, our religion has got a path. It's got a way. And it's got teachings.

There may be an initiation ceremony, something that you get on the path, and then you have gurus, priests, mimeums, all kinds of people that teach you, etc., etc. And then in the end, you face some kind of assessment. There's a final judgment or something like that where you're, how you've behaved is weight measured.

And if you pass the test, then you're welcome to heaven or divine or whatever it is. And if you don't pass, then you're not. And you go somewhere else.

And I generally find that that is what people think religion is. In fact, it's like Claremont University. You got in here, you students.

You probably have to do some kind of test or time. And even though all the professors

are as delightful as Mary here, they cannot guarantee you a degree. Can you? No.

Why? Because it depends on your merit. Now, I want you to listen very carefully because it's failure to understand this that turns many people away from Christianity. They think that Christianity is a religion of merit and they're not only fed up with it.

And it's giving them a set of rules that are impossible to keep, a set of laws that just crush them into a kind of religious slavery and dangling in front of them the fact that one day they're going to be assessed on those rules. Now, just as a student in mid-course here, cannot be sure of a degree. However, kind and nice the professors are.

So in many religions, and most as far as I can say, and that is told me by their adherence, they cannot be certain of the relationship with God. Why? Because that relationship is based on merit. But this is where Christianity is utterly unique, ladies and gentlemen.

Let me say something that might provoke you a little bit. Christianity competes with no other philosophy or religion because it offers me something that none of them do. It offers me a relationship with God not at the end of the way, but at the beginning of the way.

Let me illustrate that. I mentioned my wife Sally, who's sadly not here. But when I met her in my first day at university and eventually decided she'd make a good wife, I came to her and I gave her a present.

It was a big cookbook. And I said to her, "Sally, now look, I would like you to be my wife." Now, it's going to be like this. Let's have a look at page 303 of the recipe for apple strudel.

Now, this is an example of my dear. If you keep the rules in this book, "Thou shall take so many ounces of sugar, thou shall take so many kilos of flour, thou shall take so many and thou shall do this and this and this." If you keep that, let's say for the next 40 years, then I will accept you. Of course, she threw the book back at me.

I'm glad you're laughing, folks. I don't know why you're laughing because that's how millions of people think about God and that breaks my heart. You would never insult a fellow human being by making a relationship depend on merit and performance like that.

Now, be careful. My wife has several cookbooks. But what sets her free to enjoy cooking is because she knows that even if she makes a massive and odd apple strudel, I'm not going to send her back to her mother because my relationship with her doesn't depend on merit.

That's what Christianity said. And the thing we'd never do to our fellow human beings, millions of people without thinking base the relationship with God on a merit system that

they can never keep and therefore they never have any certainty. I meet many young people and they're uncertain.

They're feeling lonely. They want a real relationship. Well, the wonderful thing, and you asked me why I'm a Christian.

This is why I'm a Christian because Christ offers me something. Nobody else offers me. But in order to get there, I have to face the fact straight that I've made a mess of things like everybody else.

I haven't even kept my own standards, let alone God's standards. So what Christ asked me to do is to repent and face the mess I've made of my life and other people's lives and to trust him as the person who's done something. Now, this will sound like gobbledygook to you.

But ultimate reality is very complex. We don't understand what energy is. We don't have a clue what consciousness is.

So if I say to you ladies and gentlemen that 20 centuries ago, God incarnate died on a cross to do something, to enable you to have a relationship with God that's unbreakable and eternal and goes beyond death, don't mock it too quickly because reality is always more complex than you think. Those who sit there, that is what I believe. You see, I do these lectures, not to gain brownie points.

So God says, "O Lennox is a good champion." He's done another veritas. I don't do them to gain acceptance. I do them because I've got it because it doesn't depend on my merit.

But that is why I'm a Christian and not involved in the philosophic system or a religious system that bases everything on my merit when I know I could never achieve it anyway. So the final point here is this. I'm often asked as a scientist and said, "Look, you can't be a Christian because in science, everything is testable.

You test things. You test hypotheses. You can't test Christianity." Well, who told you that? Of course you can.

Of course you can. I gave a lecture at Harvard when I'd finished a couple of thousand people there. There was a big balcony and when I'd finished, a Chinese student stood up some years ago now and shouted, "Look at me." And of course we all looked.

And it was obvious he was talking to me and I said, "Why should we look at you?" It was a very task force. He said, "Just look at me." He said, "Six months ago." And I don't remember the exact details, but he was in a mess. He was absolutely down.

He had no way out. And he said, "Somebody brought me to listen to you at Penn State University." And he said, "That night I decided to start a quest." And he started, I believe,

reading a gospel or something. He said, "Just look at me." He was radiant.

And it was such an obvious expression of the fact that Christianity works in transforming people's lives. Now, I'm in my mid-70s now. I've watched people come from, say, narcotic dependence, alcohol dependence, broken relationships, feeling suicidal even.

Many students, I love students. I've been with them all my life. I'm a perpetual student.

But the point is that I see them, and then I may not see them again for a year. And I meet them and say, "There's something different about you. What's happened?" And they'll say something like this, "Well, I became a Christian, or I met Jesus, or I had an experience of God." They'll put it in different ways.

But instead of broken relationships, they're mended. Instead of alcohol and drugs, there's food on the table. They got meaning in life.

When you see that again and again, anybody's capable of adding two and two and getting four. It actually works. And that is one of the most important things, the existential thing.

The intellectual arguments are very important. They're necessary. The historical arguments are important.

But the most important thing of all is, does it actually work? And I sit here and I tell you, my experience is that it does work. But please check it out for yourself. You've got a great opportunity in this university to do that.

There are Christians in this room. Grab ahold of them. Squeeze them.

And get it. I don't mean literally. Get information out of them.

Find out what makes them tick. And I just wish all of you all the best. But thank you so much for coming and listening.

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