

# OpenTheo

## Meaning, Evidence, and Truth | Dr. Ard Louis

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### The Veritas Forum

Ard A. Louis, a Professor of Theoretical Physics at the University of Oxford, asks whether science can answer all of life's questions. From the stage at the University of Birmingham in the UK. • Please like, share, subscribe to, and review this podcast. Thank you!

### Transcript

Welcome to the Veritas Forum. This is the Veritas Forum Podcast. A place where ideas and beliefs converge.

What I'm really going to be watching is, which one has the resources in their worldview to be tolerant, respectful, and humble toward the people they disagree with? How do we know whether the lives that we're living are meaningful? If energy, light, gravity, and consciousness are a mystery, don't be surprised if you're going to get an element of this involved. Today we're here from Oxford theoretical physicist, Ard Louis. As he discusses the question, can science answer all of our questions? In a talk titled Meaning, Evidence, and Truth at the University of Birmingham in the UK.

It's a great pleasure and honour for me to be here. Speak to all of you on these kinds of big questions. I think sometimes these kinds of big questions have been, or the kind of thing that motivates you to go to university in the first place.

It's why you come, it's why you want to study, you want to think about what the big questions are. And then we press us to our best to beat out of you while you're here. But hopefully sometimes events like this can help you think about these things.

And today the title that I have is Meaning, Evidence, and Truth. Can science answer all of our questions? And I've been very interested in this because of the last two years or so I've made a documentary series with a friend of mine, David Malone, who's David's quite a key. Natheist, I'm a Christian and a scientist, and so we made a, he was an atheist and an artist, I'm a Christian and scientist, so we thought we'd make a good duo.

We went around the world talking to people about this. And this question of meaning. And so I want to just start with a little clip from our documentary series.

Give me every place. The title of our first episode is called Meaning Seeking Beings because I think we all are meaning seeking beings. We seek meaning.

We're trying to figure out why are we here? What's the meaning of life? What's the meaning of the things around this? Why are we here? And so those are really important questions, the kind of questions that you have to think about at university. And I've always been interested in big questions. I'll give you an idea of the kind of research I do just to introduce myself to you a little bit to humanize myself or dehumanize myself depending on your love of science.

So this is myself actually, I grew up in Gabon in Central Africa. How many of you know where Gabon is? Do you know what a few people do? So Central Africa jungle, my father, my parents are biologists. So we lived in the jungle and we had a pet chimpanzee growing up.

His name was Bertia. In case you can't see the difference, this is my chimpanzee. That's me.

My mother says we look different, I hope we look different, but we behave remarkably similarly. It turns out that as I went on and started studying things, I realized that I share 50% of my genes with flies, 70% with a frog. And if you kiss a frog, then it becomes a prince.

You share more of your genes. I shared 98% of my genes with Bertia, my chimpanzee. And so one question that I started thinking about quite early as a child was, what makes me different? Why am I different from this chimpanzee? And it turns out that I share most of my genes.

So what makes me different? And the reason why it seems surprising that I would be sharing 90% of my genes with a chimpanzee or 70% with a frog, I feel like I'm a little bit more than 2% different than a chimpanzee. Well, people differ on that question, but I think I am. And the reason is because we tend to think about genes as kind of blueprints, like architectural drawings.

And so the more two drawings look like each other, the more that they must overlap. So I have a principle that I have always held to in these kinds of general talks that I'll try to teach you one little piece of science. So one piece of science is you probably, if you're not a biologist, think about your genes as kind of blueprints, but that's the wrong way of thinking about them.

If you think about genes, you could also think about them as interconnected switches. So a lot of the genes in your body are actually switches. They switch things on and off.

And just like a transistor, right, has made a lot of switches and can be rearranged in different ways to make all kinds, it can be an oscillator, or it can be, it can do all kinds of different things depending on your switching components. And the same way our genes can be rearranged and switched, in all kinds of very interesting ways. So a better metaphor perhaps for thinking about how your genes make you is something like a transistor.

And so that's why I, as a physicist, am interested in this because it turns out I can turn this little picture here, which is each of these little dots. The gene, each line is telling you that this one is switching that one, or switching that one. That's right here, switching a lot of people.

It's very important. I can turn that all into a set of beautiful equations and physicists like this kind of stuff. So these are, I consider these to be very beautiful equations.

I can spend my time on. Another kind of big question I worried about as a child, really had to do with the kind of general thing when you look at the universe and you wonder how big it is. So when I look at the stars, what is it that makes us who we are? There are, we think about 10 to 22, 10 to 23 stars in the universe, more stars than we can ever imagine.

There's a very famous saying in the book of Psalms where the writer wrote, "When I look at the stars, what is man that you are mindful of him?" And that kind of sense of looking at nature and seeing the grandeur of it and sensing yourself to be very small is a universal sense. And the question is really what does that mean? And you can in fact take that sense and expand it out to something even bigger and ask yourself not only what does it mean, but me, where did this star come from? Where did this universe come from? And that's the kind of maybe the ultimate big question that we might have is where did this universe come from? Why is it here? And I remember even as a relative young child wondering about this and trying to get my head around it and not getting very far and wondering where does this universe come from. And so the ultimate big question we might have in our lives is really why is there something? In other words, why is there something rather than nothing? I don't know if you look at me slightly puzzled wondering why or whether you were worried about that, but think about it, it's kind of strange.

Look around yourself, everything you see, the beauty of nature, people around you, everything. Why is it here? Why is there something rather than nothing? It's the kind of ultimate deep question. And we might hope that by looking at this question we'll get some sense of why we're here or where we're from.

And it was interesting by this question, the reason I'm harping on it a little bit is because I think it points towards a very important principle that I want to get across today, which is that as much as science helps us in sharpening and in formatting these questions, it

doesn't really help us in all student. And I want to illustrate that to you with this question. So why is something rather than nothing? Well, one possibility would be that something has always existed.

And so when we think of why is our universe here, we really shouldn't think initially about why is the matter here that makes our universe. But we should ask the question, why are the laws of nature, the laws of physics that allow our universe to exist? Where did they come from? Why are they here? So what possibility would be those laws have always existed? There have always been laws of nature. Or else maybe there are previous laws of nature that cause our current laws of nature.

Either way, you have something that is very odd because the question is what caused those laws that caused our laws, well, some other set of laws that caused those laws, and it goes on at infinitum. And so you have something which is definitely different from anything that we know in science, something which has an infinite series of causes or something which might have actually been itself has always been. So that's a possible but a difficult thing to get your head around.

The other possibility would be, well, okay, if you don't like that, you don't like this idea of an infinite regress, then perhaps the laws of nature just popped into being out of nothingness, out of ontological nothingness. So that means nothingness means not just empty space that something pops into, but real nothing, nothingness. So no laws of nature, no laws of mathematics, no laws of logic, real nothingness.

So again, that's possibility, but it's a very strange one. And if you're a naturalist, if you believe that there's nothing except the laws of nature and what they've caused, then you're more or less stuck with one of these two options. Either the laws of nature have all existed or some they're preceded by some other set of laws of nature, and infinitum, or they popped into being out of real true nothingness.

Now either those could be true, right, it's hard to know which one is true, but they are definitely, they are metaphysical philosophical points. So those, and they're both rather unsatisfying, I think, but some people find them very satisfying. The other option would be that the whole of space-time is dependent on a non-spatial temporal reality, a being who cannot not exist.

So that sounds very complicated. So let me explain to you in a slightly simpler way. So this would be what theists would traditionally call God, right? So when theists, Christians or other major religions think about God, they don't think about God as a being like ourselves, who's only bigger and, you know, kind of bigger and smarter.

But God is somehow something completely different. So God would be the final cause in the words of the early theologians, or the first cause. The reason why, the way that you get around this problem of having something exist eternally or something popping out of

true nothingness would be, there is something that's not part of this natural world, which is who has a different kind of nature and therefore cause this world.

Now, if you're not a theist, then that kind of sounds a little bit odd because I'm introducing some concept of God to you. And I'm perfectly happy for you to find that odd. I just wanted to point out that all through these options are odd.

So all of us are kind of stuck in this word, whether you believe in God or not believe in God. In having some kind of premise, which on it's just by itself, looking at it just by itself seems odd. And it's definitely not scientific.

It's philosophical or theological. So every single one of you in this room is a philosopher or theologian of some kind. You have some kind of philosophy or some kind of theology.

And I just wanted to point that out at the beginning. That was a bit of a heavy way of starting. But I wanted to start that way because I want to get you away from the idea that these questions about science and faith and how they interlink are really about science.

They're really a lot more about philosophy or theology. So the question of course is why have you invited a theoretical physicist to come speak to you on these topics? And I'll leave that up to the organizers. I mean obviously as scientists I've thought a lot about this and thought about these questions.

And I think they're really fun questions. And of course what's probably motivating many of you is this kind of idea in the background that floats around in our society that science has been, you know, enormous successful. I think science is an unbelievably successful thing that humans have engaged in.

Perhaps the greatest achievement that humans have ever, the greatest thing that humans have ever achieved. And yet so it's easy to sense that if it's been so successful won't it one day answer all of our questions. And so in this documentary that we make, this was one of the questions we really wanted to address.

And so we interviewed a few people who did a much better job than I will of presenting their case. And so this is the Alex Rosenberg, a philosopher who I really enjoyed interacting with. So those are two of our people who interviewed so Alex Rosenberg and Peter Atkins very distinguished, also very distinguished chemists.

And really enjoyed interacting with them, they enjoyed interacting with us. They've seen the film, they really liked it. So I think we did a good job having put their points forward.

It won't surprise you if I tell you I'm a Christian, a scientist that I don't agree with them. And if we could have filmed them in here we could have had a longer discussion perhaps together. But I think rather than quoting them, I'd ask this question, is this true that

science will answer all questions? And there's a temptation to feel that way because surely if you just look around our current world, look at the advances we've had in medicine, compare us to even a hundred years ago, the advances have been really dramatic.

So that's an enormous advance. So if you think about this little computer that you hold in your pocket, right, it's an amazing technological advance. You always wonder to yourself what would aliens say when they come down to earth and they say, "Those humans are amazing." They've created these computers that you can hold in their pocket.

They're incredibly powerful machines that can do thousands of calculations in a millisecond. And they spend most of their time looking at cat videos. I'll leave that for a different question.

So it's true that it was natural to think that, you know, shouldn't this extend into everything, right? Shouldn't we therefore get rid of this kind of old-fashioned superstitions of religious or other ways of knowing and try to use this very reliable way of knowing to get somewhere? But I want to quote another famous atheist actually from Oxford, Sir Peter Mediviar, a Nobel Prize winner who wrote on this topic. "That there is indeed a limit upon science is made very likely by the existence of questions that science cannot answer and that no conceivable advance of science would empower it to answer." These are the questions that children ask. I have a mindless question that says, "How did everything begin? What are we all here for? And what is the point of living?" I remember asking myself those questions as a child.

And it is not the science there for what the metaphysics imagined of literature or religion that it was turned for answers to questions having to do with first and lost things. And then he goes on and says, "Science is a great and glorious enterprise. The most successful argument human beings ever engaged in.

To approach it for its inability to answer all the questions we should like to put to it is no more sensible than to approach a railway locomotive for not flying or in general not performing any other operation for it which was not designed." So what we see here is that there's a kind of difference of views even among those who don't have any kind of ridges face but where the science can answer these really ultimate questions. And so I wanted to touch on that a little bit with a few slides. I'm just going to take a few steps to the left and steps to the right and hopefully in the Q&A we can really get to the heart of this matter.

So the first thing is I want to kind of get rid of a bit of a myth that some of those folks around which is that scientists are not Christians or very few scientists are Christians or the more that you get in the science unless you believe in God. So this coming weekend actually so tomorrow ends and Saturday a bunch of faculty friends of mine at the University of Oxford who run a course for Christian students called Oxford Christian

Minds for Christian Graduate Students to think but they're subjects and there's a philosophy stream and a theology stream and a history stream and it's like a like a humanity stream, a social science stream and a natural science stream and they're all taught by Oxford academics who are Christian believers of some kind or the other. It turns out that the science stream which is the one I run has by far so for the other ones we have to sometimes ask people people who are very busy and get them to come.

For the science stream my main problem is I've got so many of my colleagues who would like to talk about this I have to kind of manage them a little bit and invite them one this year and then one next one the next year because there are many of us and sometimes in my experiences when I'm outside of the academy particularly people say to be oh you're a scientist and you're a believer and they think it's very strange as if I'm you know a vegetarian butcher somebody who doesn't really believe in what they do but I think that's not that's not right and one of my colleagues Andrew Briggs has written a really lovely book on the on science and faith which he called the penultimate curiosity and I really like this because I think it describes how I feel that science works so the ultimate curiosity are the big questions like why are we here and what is life about and the kind of religious questions you are is there a God and if there's a God what is that God like and the penultimate questions are what he considers to be the scientific questions the questions about how do things work and how do they all put together and he says this often swims in the slipstream of the ultimate questions now I really like that because it helps me I think understand a little bit about why science is so inspiring right so fun because it's slipping in the slipstream of these great questions and we see that historically science has these deeply Christian roots here's a quote from Isaac Newton who said this most beautiful system of the sun moon suns planets and comets can only proceed from the council and dominion of an intelligent being Newton wrote more about theology than he wrote about science now he wasn't a very good theologian so we remember his science but the fact that he was deeply motivated by theological considerations we see Robert Boyle who was the founder of modern chemistry you probably remember Boyle's law from secondary school who wrote a book called the wisdom of God manifested in the works of creation it was again somebody who was actually mocked by his peers for his religious faith and so we see that there's basically a deep history of interaction between science and faith through time and one of the things that's come out of that is that theism actually believing in God was historically really important for the birth of science in the sense that many of the people who did who started science up had were deeply Christian beliefs and these beliefs motivated them to do science but in fact had really important theological concepts that underlied being able to do science so if I do science I'm assuming a whole number of things and I'm assuming that the world is intelligible that means that I can understand something about the world I assume that the world is uniform so uniformity basically means that if I do experiments here in Birmingham then under really well-contradiction somebody in all say Cambridge should be able to get the same result at least if they're smart and so maybe I see

perhaps it would be the case so and that's because we think nature is uniform in other words what I do here in the welcome contrived conditions should be the same as anywhere else on the globe in fact probably anywhere else in the universe and we're so used to that idea that we don't question it but it's not all obvious for most people in most times the nature doesn't seem to be that regular it seems to be capricious and so the question is why did people start thinking perhaps the world is uniform perhaps it can be studied in this very well controlled way well if you believe there's a God who created the world and if you believe this is a God who is a good God and a God a faithful God then it's not so surprising that the ways that God sustains the world might be regular and that kind of idea is really important for the grounding of modern science so that's the first of the kind of big questions that I want to look at just how do science and faith link I wanted to get rid of the idea that somehow in practice this is a question of great conflicts for scientists who I believe it tends not to be and historically it hasn't been the second question I want to ask I really want to get to is a question of who am I this is a kind of big question who am I well that's kind of interesting I can think about that in lots of different ways so I am in fact a self-assembled biological machine which is true I am a best-helpful biological machine in other words one of the great things about your body which is amazing is that once you're born you no longer be everything is kind of made even inside your mother's womb it's not like there's a factory in there that's putting things in things just kind of naturally come together in the self-assembled way it's really cool in fact in my laboratory we work on self-assembling how do you make things that make themselves so I am a self-assembled biological machine I'm also a product of my genes my genes have had a very important effect on who I am I am also a member of a social system so part of who I am is I'm a social system I'm gendered which can be really important I'm a citizen of netherlands in fact we voted yesterday and I'm an economic actor sometimes people want to reduce me to nothing but an economic actor but I like to think that I'm a lot more than just that and also a father and all these things are part of my identity so when you ask me who am I every single one of those things is true and then they're not just because one of the mystery doesn't mean the other ones are not true in fact I am a homo sapiens after the Kingdom Anamalia, Phylum, Cordata etc. all the way down to species homo sapiens so I am a homo sapiens and hopefully I suppose I can tell most so are all of you and I'm also a collection of chemicals so I made about 60% water and in fact I've got enough iron in myself for about 2000 matches sorry enough phosphorus for 2000 matches I've ironed for one nail enough chlorine to disinfect the swimming pool and enough fat for about 10 bars of soap or perhaps a few more probably a few more actually and so I am a bag of chemicals now for those of you in the audience who are hoping for romantic relationships let me give you some piece of advice assume that one day you as a young man are sitting at a table and the lights are low and you've a very nice restaurant and you've got some very nice food and if you've got a flower on the table with some candles and everything's going very well and the objects of your affections looks at you and says so maybe let's say your name is Bob so Bob how well do you know me you know do you really know what I made of if you then say well those of



you who have been in this situation know this dangerous question you have to get the right answer you'll be in big trouble so you panic a little bit and then you suddenly remember that you went to an election night before and somebody told you that you're made of chemicals you say darling you're made of chemicals enough phosphorus for 2000 matches enough iron for one nail the chlorine second seedle and a fat for 10 bars of soap at which point you will get a slap even if you say just one bar of soap and the reason is because somehow instinctively we sense that if I reduce you to the chemicals that you're made of that I've somehow missed out on what you are and hopefully that will be obvious for you if you're coming to that situation where you're asked somebody asks you who do you think that I am and the reason for this is linked to this very famous example that goes back to Frank Rhodes from Cornell and it's the following you come into let's say you come into my home and the what I've got a castle of water boiling and you ask me why is water boiling and I say oh well there's a thermal heat source that transfers energy across the container wall into the fluid that means that the mean square velocity of the molecules increases the mean square velocity is proportional to the temperature when the temperature reaches 100 degrees Celsius there is a phase transition from a condensed phase to an expanded phase which we call melting sorry each of all boiling so I'm going to fail you I'll fail you're a thermodynamics test engine so that's it also the answer could be you come into my home and you see that the kettle is boiling and you ask me why is the kettle boiling and I say well I fancy cup of tea would you like some and if I give you one answer or I give you the other one the other of these is neither of these contradicts the other one there's just two different ways of looking at something so just because I've explained the mechanism for you by which something works the mechanism by which something boils doesn't mean that I've therefore the new digits of all volumes so though even I'll give you the scientific explanation for why something happens whether that be a social phenomenon or a physical phenomenon doesn't mean that I've therefore explained it away so that's the question about who I am who am I I'm all these different things I'm a biological machine all the way up to a social actor but I think I'm more than that and one interesting way of thinking about that and is to ask myself how would I measure the value of a human life so measuring the value of human life or considering whether a certain human being is valuable is a really important thing in a modern society and in a modern society we we by and large agree that humans life is valuable period we believe in the kind of sanctity of human life and that is something which which Lushti has been based on deeply Christian presupposition I think that's why you don't like those and you want to try to use science to explain this so you'd like to use a scientific method to re-explain what the value of human being wouldn't that be great that we wouldn't disagree with this anymore we'd all have this one nice method of figuring this out but let's say I tried to describe use science to describe the value of human being how would I do that well it's really hard so if I was a chemist I might look at the value of the elements that you made but that seems pretty silly right somebody with gold fillings is not worth more than somebody without gold fillings or if I was a physiologist I might look at the size of your brain or a psychologist

how smart you are or an anthropologist how the community values you or economist how much you can all value you produce but we've neatly sent to each of those different ways of trying to work out our value is deeply flawed and it's actually almost offensive if I was to try to do that to you and the reason for that is that we need some other source of some other source of value for the idea that we value human beings and science simply can't give that to us now I had a few clips that I wanted to show you on this I had a little AV problem so I'll skip them and I'll try to expand on this so what I've tried to say to you is if I use science to explain something about you like the fact that you made of chemicals that doesn't mean I've explained the way that we're at the level of meaning there may be other levels of meaning I've given you one really important level of meaning which is a kind of moral level or a value level or how do I value human beings and argue that science really can't give us any great guidance you can sharpen the questions but can't tell us how we should value human beings and I've got a friend at Stanford Bill Newsom who hosted me actually for the very first form there a few years ago a very famous neuroscientist and once he was walking across Stanford campus with one of his colleagues and the colleague didn't like this chapel which is a very famous chapel if you're really Stanford's but well worth seeing called Memorial Chapel and the colleagues said you know we should just blow this thing up because it's a monument to irrationality and Bill said why well you know because there's people that are religious there they believe in kind of things that can't be they're not scientific things and then Bill said well okay if you want to hold to that then perhaps you should blow up my house as well because my house is also a monument to irrationality on your terms and so obviously the colleague was wondering what was going on so Bill kind of gave the I might switch the voice to myself so Bill gave an example of getting married I'll give the same example for me so a number of years ago actually a little while ago I got married and if anybody in the audience would like to get married you'll see that there are rational ways of choosing a spouse and irrational ways of choosing a spouse so a truly rational way of choosing a spouse is to go on to the street and find the worst and best girl that you see and say please marry me that's irrational if the girl says yes that's scary because something is quite right so what you do is you get to know the other person right so you get to know the person and you see whether you enjoy being together that's actually quite important and you might ask your friends or people that you in your community that you trust what you think of the two of us together you do other things like for example my wife and I did these kind of compatibility tests in our pre-marriageing you know with a that you have to fill out this whole long series of questions there and see if you marry people shaking their members that you fill out those long forms like how do you hold really squeeze a toothpaste this kind of stuff it's quite illuminating but you don't marry somebody because you both score 95% on the compatibility so there has to be something more to it so the point is there are irrational ways of choosing a spouse and there are better ways of choosing a spouse or hopefully better ways choosing a spouse but in the end of the day you can't really use the scientific methods to choose a spouse and one of the reasons for that is in the scientific

method you do repeated experiments and you shouldn't do repeated experiments in marriage if you can help it the other thing about the scientific methods is that you really want to know something pretty sure but the point is until you're married you don't know what it's like to be married to the person so you take it you're taking what's really a leap of faith you gather some evidence together as well as you can and then you take a leap of faith and say well I'm just going to see what it's like because you don't know what it's like until you're married to that knowledge is not accessible to you until you've made a step of faith and I would argue that most really important knowledge has that kind of character to it if I were to use the scientific method to try with my wife and I'd say to her I'm not going to marry you until I'm scientifically sure that you're the one that I'm going to marry out and she would have probably left me for somebody better a long time ago and because I'll never know for sure because I'll never get that information at the same time if I also behave in the kind of scientific way which is a good way of working doing science which is being skeptical about something until I have evidence of the contrary that's how science works if I say to my wife I'm skeptical that you love me unless you give me evidence that you love me that's kind of pathological way of interacting if that's how you by the way the fact is there's lots of evidence that I'll never see instead I've got to take a step of faith and believe that she loves being treated that way and then there's a lot of evidence that I'll actually see whether she really does or doesn't love me so a lot of knowledge that's really important relational knowledge for example has this kind of step of faith type aspect to us and if you try to reduce it to the kind of spectator knowledge of science and you're missing something really important and unfortunately what that means is that really a lot of the important things in life are not that accessible to scientific methods I think that's going to help us a little bit but only partially it's a little bit like the following example you're walking late at night somewhere in Birmingham in a very dark alley and you see a man under a bright light and he's looking for his keys and so you ask him what's happened and I've lost my keys and so you help this man looking around for a while and after a good while you haven't found the keys and you want to search the entire area you ask him you know I don't want to sorry to bother you sir but you're sure you lost your keys here under the light he says well I have no idea where I lost my keys okay but under the light I know that it's very bright so I can see here and that's why he's looking there and if you want if you think that science can answer all the questions there's a little bit like this man right so you're honest with lights very bright science is a very bright light that shines itself in your laboratory or in other scientific environments and the reason it's so bright is because we limit science really to very specific kinds of questions but all the kind of interesting questions the important questions the questions of life of meaning of personal knowledge of relational knowledge are just a little bit there in the shadows and a little bit harder to find and so we need to think about other ways of thinking about them and finding them it is not the science therefore but the metaphysics imagine the religion that we turn to answers with questions having to do with first and lost things and that's really the point I wanted to make I wanted to make I want you to remember two things one is that your genes are

not blueprints but they're much more dynamic like transistors so that's something I should remember and I think I want to answer you to remember is that science is powerful and as beautiful and as amazing as it is much as I pinch myself that I get paid money in fact for many of you to tax money so thank you very much to think about this the fact is it clients cannot tell me most of the really else to most of the really important questions of life the questions of meaning the questions of purpose and questions of value questions of morality all those kinds of questions it can't answer those questions by it's very nature and when I ask myself back to this question of who am I I have to find some other who am I why am I here I have to find some other source of meaning for this and for if I was giving a different talk if the question I've been asked is how do you find meaning in your life as a Christian that I will tell you about how that works but that wasn't really what I was asked to do but I do think that I'll give you one thing that I think is important for me to ask myself who am I as a Christian I think that I am something we read in the Bible for we all of us actually are God's workmanship created in Christ Jesus for good works we got prepared beforehand that we should walk in them it's a bit of a mouthful but basically this is saying if I ask myself why am I here I think it's because I was created by God in order to do something on this earth and God paid me for this way this is the source of my of my meaning and that's obviously not a scientific answer that's an answer I get from thinking about scripture is an answer I think about thinking to the software be about the way the world is thinking theologically about the way the world is something I learn from people around me it has the nature of relational knowledge or nature of personal knowledge but I think it's a very valuable way of looking at the world and whether it's true or not is a different question it has to be adjudicated on other grounds and science science doesn't undermine this in any possible way I may be wrong about my religious beliefs that to an orgy extent science is not the way of figuring that out I have to figure out other ways and with that I want to thank you for your attention if you like this and you want to hear more like share review and subscribe to this podcast and from all of us here at the Veritas Forum thank you

(gentle music)

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