

# OpenTheo

## **The Origin of Humanity: Adam, Eve, and Evolution | Josh Swamidass & Nathan Lents**

February 23, 2021



### **The Veritas Forum**

In this discussion between Christian and Atheist scientists, Josh Swamidass and Nathan Lents, they explore the building blocks of life, behavior, our evolution, and who our ancestors were. • 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 in the street, don't be surprised if you're going to get an element of this in God. Today we hear from Professor Josh Swamidass, a professor in the Department of Immunology and Pathology at Washington University School of Medicine, and Nathan Lents, a professor of biology at the City University of New York. A discussion titled "The Origin of Humanity", Adam, Eve, and Evolution, an Atheist and a Christian discuss where we come from, moderated by Dr. Lydia Dugdale of Columbia University, hosted by the Veritas Forum at Columbia University.

Okay, well thanks very much for the invitation to be here. I can talk about human evolution. I'm not going to talk too much about Adam and Eve tonight because as an atheist I have very little interest in Adam and Eve, except that many people they care about do care about Adam and Eve, and for that reason I'm sort of drawn into this conversation.

But I'm most interested in human beings and humanity. I love humans, some of my friends are humans. The question of how we got this way, why we are the way that we are, had been driving us since the earliest days.

And we have come up with several ways to ask that question, several possible answers to that question. But I'm going to talk a little bit about the science of that question, about how we know about things that happened millions of years ago, and how it is still relevant to our lives now. Our bodies and our minds are the products of 4 billion years of evolution.

And you carry those 4 billion years with you every day. And they affect decisions that you make every day. And so I can't imagine a more important question, a more important thing to study than how we got this way and what the genetics are that form our person.

And that's the same question that many really religions ask. They just ask it a different way. And as important as the differences are, and this is not to talk about differences, so I won't go there.

What's even more interesting to me are the commonalities. And in fact, many religions come to the same conclusions about some of the stuff I'm going to talk about today. Which, if that matters to you, it's more evidence that it's right.

Okay, so what makes humans unique? How are we different than all of the other living things on this planet and that have come and gone on this planet? You're going to get a lot of different possible answers to this question. Everybody has their favorite thing that they think humans have that other animals don't, or that humans have in a different way than any other animals have. And here's just a short list that you'll find articles that support each one of these intelligence, speech, relationships, morality, and as uniquely human.

There's one problem. None of these are uniquely human. And in fact, every single thing on that slide, we have really good examples of if not precursors, correlates in other animals.

And it's really powerful when you discover some of these complex, cognitive skills in other animals, because that allows you to study them in a way that's not clouded by everything else that we do known as culture. Animals do have culture, it's way simpler, and it's much easier to cut through the noise of culture. And by the way, I'm not dismissing culture.

Culture is everything interesting about our lives. But it does cloud this question of how we got this way. Animals are absolutely intelligent, extremely intelligent, and they're more intelligent than we are in certain ways.

We have some very key skills that many animals don't, but there's lots of skills we don't have that they do. Animals have emotions, they have drives, they have instincts. And just so we're clear, I'm not talking about feelings.

Feelings are not the same thing as emotions. Emotions are what drive behavior. And behavioral programs are what my first book was about.

Actually, the way I came into this conversation was I decided with my sabbatical in several years surrounding it, I would spend years gathering all the evidence on how humans became so different, so fast. We share a common ancestor with chimpanzees that lived about 6 million years ago. Not a terribly long amount of time.

And after three years of research, I basically came to the exact opposite conclusion that I set to defend, and I wrote a book called *Not So Different*, which basically talks about how humans and animals share all of the same behavioral programs. And what I mean by behavioral programs are emotions, drives, instincts. The reasons why you do what you do every day.

Every little decision that you make is driven by a program, a behavioral program in your brain. And we have no unique programs. Every program that runs in our brain exists in other animals in some way.

Now, it runs in a unique way in humans, but it runs in a unique way in every animal. Animals form attachments that matter to them. Animals grieve the loss of those attachments, sometimes to the point of death.

Animals communicate with one another in very sophisticated ways. I'll talk about that. Animals are creative.

They're expressions. We can just go through some of these in more detail. Unfortunately, I only have 15 minutes, which I can talk about this for hours, which I do often to anyone who will listen to me at the pub.

But with 15 minutes, I'm just going to give you a little bit of overview. So a little bit about intelligence. So in human beings, we talk about IQ, which I hate.

It despised the term IQ, and certainly it despised the tests and the scoring associated with it. The reason why is all it does is measure your ability to take IQ tests. It's a specific cognitive skill, but there are many, many other cognitive skills that animals have that we couldn't have even imagined have.

So this is a Blue Jay, which is a member of the Corvid family of birds. And they have the tiniest little brains, and yet they're capable of incredibly sophisticated calculations. And yes, I said calculations.

Blue Jays can do math. They can add and they can subtract. And they can add and subtract probably better than you could until about age six or seven.

And they don't barely live that long. They do it intuitively. They don't have to be taught.

I bet you you learn math by someone teaching you, but the Blue J's is just born in. Octopus is our famous for problem solving. So if you give an octopus a jar and they've never seen a jar before, they'll have that jar open in seconds just by exploring the jar, learning how it works, and fiddling with it, which is not unlike what we do.

They're incredibly intelligent. Elephants have incredibly long memories, and they remember individuals as individuals. So if you meet an elephant, and that elephant three years from now will remember how you behave and will react accordingly.

They have individual memories of people, which means if you think about how memory works and how we associate memories with things, that means they have the ability to make mental images. They have concepts for you stored in their brains. And remember, packages and humans are separated by about over 100 years of evolution, close to 150 million years of evolution.

I think I forgot the word millionaire. 150 million years of evolution. And so these ability to make mental images and manipulate those mental images, perform calculations and problem solve, these are no way uniquely human.

Animals communicate. So this animal here is called a prairie dog. Prairie dog has a vocabulary of nouns and adjectives, and some of those nouns include human beings.

Some of those adjectives include the size of whatever it is they're talking about and color. So you might very well walk by a group of prairie dogs in their whispering, look at that tall yellow human, yellow, assuming you're running a yellow shirt or something. They say that to each other and they respond accordingly.

This is a group of bat booms. Bat booms have words for all their various predators and various other things that they need to communicate with one another about. And we know this because you can record their utterances, play them back and they respond.

They're a little confused because they don't know where it's coming from because line of sight is important for their communication, but they will react. If you tell them there's an eagle in bat-boom language, they will go like this and look around for cover. If you tell them there's a snake, they will run up the tree.

So they communicate with each other with words. It's not language, it doesn't have grammar, but it's well on its way towards grammar. And remember, bat booms being old-world monkeys are separated from us by about 25 million years of evolution.

We didn't invent communication, even sophisticated communication. And in fact, we've even got to sheer amazing good luck, a view of how language can evolve, and adapt, even in an old-world monkey like this mandrel. So this is a gesture that this mandrel invented.

He's in a zoo in England. And what he's doing by covering his eyes is he's saying, "Leave me alone." And that might sound like a very simple thing, but imagine all that goes into communicating that concept, "Leave me alone." And this is a particularly unfriendly bat-boom, and when he's approached, excuse me, when she is approached, doesn't want to be messed with, she'll cover her eyes. And what's interesting about this, besides just that they've invented a gesture, well, there's two things interesting.

One is that we actually know the mechanism, because direct eye contact is how all bat-boom social interactions initiate. Not that different from us, right? But that eye contact is crucial. By putting her hand over her eyes, she prevents any social interaction.

She's a bit of a loner, and that's how it works. However, it's caught on. The other mandrels in the zoo do this when they don't want to talk to someone, when they don't want to be messed around.

Communication is a tool that animals have been using for a very, very long time. Now, we know because of experiments with the Great Apes, with the African Apes, that they're able to gain huge vocabulary, so sign language, lexicon boards, that they can memorize literally thousands of words and use them effectively. They even combine them on occasion.

Coco was famous for inventing the word for ring, she said finger bracelet to express the concept of ring. A lot of some of the hype about Coco hasn't really stood the test in time, but she definitely has at least on some occasions invented new words to express the concepts. This is a very artificial environment, but it's important to remember that they also communicate with each other this way.

In fact, the gestures of chimpanzees and bat numbers have been documented in chimpanzees and what they mean and how they work. That's a million years of separation, and yet they talk the same way. We don't.

It only takes a few hundred years for human languages to diverge, because our languages aren't encoded in our DNA. There seems to be. This goes to show us what those are, and without going any too much detail, basically anything an initiated green has to do with sex, so that's what they spend most their time talking about.

Are we that different? Just to show you some other concepts that many people think that are human-specific and that animals don't do. Animals recognize fair play, they know when they're not being treated equally. Animals recognize fair play, and if you think about a little weird reaction to throw a tantrum and throw the food, how is he better off for having this incredibly emotional reaction? So human life, isn't it? Because it's obnoxious, but yet what it tells us is that they recognize this social system is not fair and they will not participate.

They'll stand up. There's a value greater than hunger. There's a value greater than your immediate self-interest that they're expressing.

These are vampire bats, and what you're going to see now is after a night's feeding, not everybody's successful in the hunt. Here's another female who was successful, sharing her meal with a female that was not successful. When someone's hungry, a bat, by the way, cannot survive two nights of starvation.

They don't eat two nights in a real little bit. So they feed one another, and their mortality rate is about 80% in a given year, if they do this. The non-sharers, which are the males, mortality rates about 25%.

I'm sorry, it's a Bible rate, it's 25%. So the point is that animals have minds. They have emotions.

They're driven by the same sort of instinct that we are. And this Lecans article, which I love the title, is how batheons think. We know a lot about them trying to say behaviors.

The problem is a lot of people don't think that they do think, but batheons have a response to everyone who thinks they don't think. So the big question about humans is, what are these big brains for? What are we programs to do if it's nothing special about any other animal? The important thing to remember is that this big huge brain that we got is fairly recent in terms of evolutionary time. It's really about a million and a half years old.

This is called the hockey stick graph, this is from my second book, and it just shows how this rapid evolution of the brain. And these stone tools, a lot of people think, oh, is to build tools. I'm sorry, this big huge brain is not necessary for these simple stone tools.

And we know that those chimpanzees use tools as well. And so the birds. So this is a bird in Australia.

This bird is chasing mammals that are fleeing the fire. The birds set the fire. The bird went to a wildfire and grabbed a twig that was burning and brought it to the brush to chase all the mammals up and it's going to eat.

So it's not to be using tools. Our big brain is being used to make us the ultimate general so that we can fry up any climate, any habitat, by figuring out how to live there rather than adapting genetically to that. And we are the most unlikely species because our family tree, so diverse, all kinds of different things, is marked by extinction.

So look at all of these species that once roamed the earth, many of them at the same time, in the same rough geographical area, they're all dead. They're all extinct. Even though for their time they had the biggest brain that the world ever saw relative to body size.

They were the smartest things of their day and yet only one line made it. So that big brain was not that big of an advantage until we started talking in language and all of this culture and stuff. And that's what we're going to talk about a lot today.

I'm at the time and I don't want to go too much into Josh's time so I'm going to stop here. But we can talk about violence, we can talk about morality, we can talk about everything else that we're doing since humanity has arrived on the planet in the last 200,000 years. And what we'll find is that it all comes down to our ability to work together peacefully, which is what we're doing here today.

So thank you very much. And Josh, also today I'm going to talk to you today about Adam and the evolution and it's a real challenge to follow Nathan. I know you wanted him to go longer but I'll try and do my best to follow suit.

We've been talking today about a story that I know a lot of you have running classes, about Adam and Eve. I learned about that as a child growing up in the younger Earth creationist family. And then we'll see a talk about the story that he was talking about too, which is a story of evolution, about how we got here from a scientific point of view.

And that's really in that divide between these two very different stories that my book really sits and wonders about an orthotic experiment, maybe if both these things to be true at the same time. I want to be clear, I understand that not everyone really thinks of both of these true and that's fine. I'm not really trying to convince anyone it's true, I'm just inviting him to a button orthotic screenwriter.

He has Nathan puts it and I agree that what we're really getting at here is grand questions about what I mean to see him. It turns out the same questions that he's engaging as he's looking at science and I engage when I look at science are the same questions that we see engage in Genesis. And that's a bit puzzling at first.

And people often thought about whether or not one of these things is true or the other one is with a big either or right there but I'm wondering if there might be a both and and before I get there to tell you about myself this is me with a couple of my students that just graduated. I don't actually really do this for a living. I'm just an average scientist working in Washington University of St. Louis medical degree and a PhD.

I use its computational bailout biology group as artificial intelligence to graphic problems like how drugs are metabolized and how to make safer drugs for kids and adults. That's what I do with my life. I just got sucked up into some bigger questions.

That's funny. This month is the 160th anniversary of the origin of the species and book published by Darwin. And from that period forward people have been wondering about this question in human origins.

106 years I thought that these two stories are in conflict and I was just thinking about

this wondering about this because I'm also a Christian and wondering I've heard about these two stories. Do they actually are they really in conflict or maybe they fit together? I don't know. I wonder will they just threw something in there that I'm a Christian? Well I might probably explain to you that detail just say that I am a Christian because I'm really not because I think evolution is false.

I actually think evolution probably is true. I think it's true. It makes a lot of sense to me.

Even though I was raised on Earth Christian I signed counter-devolution and I signed to the education and there's just an immense amount of evidence for it. The reason why I'm a Christian is because evolution is false because I encountered this person named Jesus and I really found out that it really seems like there's a lot of evidence that he grows his dad but that's another story. Today I want to talk to you about Adamine and evolution.

I want to talk to you more specifically what I mean by that. I Adamine, I mean the story that there was this couple that was created without parents suddenly from the dust and from a riddle in a very literal sense. I might say those words metaphorically right now and that just happened less than 10,000 years ago, perhaps just 6,000 years ago in the Middle East and a divinely created garden and that there are ancestors of all.

That's what I mean by Adamine. I know there's many other ways for him to see an Adamine and that's what I mean right now when I go forward. By evolution there's many components in the story of evolution.

Part of certainly focusing on here is places we have some pretty strong evidence for. One is that we as humans share common ancestors with the Great Ace. We share common ancestors which chimpanzees, bonobos, and gorillas.

That's the first part of it and the second part of it is that that we arise as a population not as a single copy. That seems when we look back in our past the answer, the size of the way this goes for population never dips down to zero. I don't see any reason to doubt any of these two things.

Now those are the two stories on face value really looks like they're different. I want to show you the idea I had, the thought experimental and about you too. So first we start with what actual Genesis story could look like and one thing that might have been this in the last slide.

There's a big question right here. So right up here is Adamine and they're kind of spreading out across the entire earth. That's the story of Genesis and gathering out sources of that one.

That's really what the tradition has been for thousands of years. Now an important piece of this is that there's a big question when I was the Earth's creationist I wondered who the heck did Nephilim order in chapter six? I wondered about Hucheen's wife and I



wondered why I didn't mention India and Genesis 12. I mean I'm from India, I had picked that up.

I'm born and I'm actually from California. But I was born to Indiana and I remember going through Genesis 12 wondering okay so where's the talk about India? It doesn't ever appear and I was really confused. The way it was really pulling into is that there's something going on here that's outside the borders of this garden that's what you talk about in Genesis 2. There's a mystery there and if you look through history you find out that I'm not the first person to notice this.

In fact people are wondering about that mystery for a very very long time. Now what's sometimes mistaken for the crucial of you but isn't really yet is abuse on our two. For example what somebody might have heard from in the Ken Ham Bill 90.

Ken Ham runs the Arkham counter. His answers in Genesis and he argues that this is what's going on. What he did is he erased the question mark and he says that it was Adam and Eve and spreading out across the entire world and there's no one outside the garden.

That's one version of the traditional account. That's one way to fill the mystery to say there's nothing there but that's not actually the account. The account is that there's a big question like that.

So my idea was and other people have thought about this before to be clear. I think I'm the first person to look at it and try and really ask the question when it's not going to be triggered. Is it possible what's going on outside the garden? Is that pollution? Maybe there's people out there that God just made it a different way.

Entirely consistent with what Nathan is talking about and way that's continuous with the animal kingdom. And somehow brings us to the point where however one is defined that there's something strange going on with this particular unusual, this particularly unusual, but there are people that are fully human outside the garden but then God for some reason makes Adam and Eve and then when they're spelled in the garden they're your offspring interbreed and mixed with everyone outside and they therefore become the ancestors of everyone. So that was the idea.

I know. It sounds a little crazy. So one of the first things I did is start to gather people the last couple years to really talk about people of all sorts.

People that were theologians, people who were philosophers, historians, scientists, to really look at this and really try and take this question seriously. This really culminated with some of the couple of workshops beginning this year. Nathan actually came to one of them.

You can see him. I think, right? Where are you, Nathan? There you are. You see him? All

right here, this is Alan Templeton.

He's a leading population geneticist. He wrote one of the textbooks on human genetics. We wanted him to come and tell me if I was crazy.

And I wanted to make sure that I wasn't putting forward any of the pseudoscience. It was actually real. You can see leading theologians here.

I know about his own creationists. This is A.J. Roberts and Gager and Bill Crag. These are all pretty well known.

People out in the public square that don't actually know where they stand in the dilution. Some of them are great about it. It gets to pretty strongly.

And I want to know what they really thought about it too. When we engage with us and we found out there's some really surprising things that really across the board people have fully appreciated. It's really well established science.

It's really overlooked. One of them is really cool. I want to share with you today.

The basic idea is it turns out that some of our genealogical ancestors are not genetic ancestors. There's a difference between genetics and genealogy. You can see that it makes sense.

If you look at your genetics and your parents, you get 50% of your genes from them. Even though they're 100% of your genealogical ancestors. With your grandparents, you get 25% of your genes from them.

Even though they're 100% of their genealogical descendants. Now, the part that's very unintuitive is this green that's here. The green are called genetic ghosts.

Isn't that a cool name? It turns out that genetic ghosts are people that are your genealogical ancestors. They really are your ancestors. And every sense you can imagine it, except they don't give you any DNA.

They're your ancestors, but they don't really know DNA. That was really surprising. First of all, the meaning.

It turns out that happens in just a few hundred years. This is just about 300 years ago. And some of my ancestors are there.

Maybe I need no DNA. If I go back a thousand years ago, if I go back 2,000, 4,000, 5,000 years ago, it turns out the vast majority of my ancestors give me DNA. No DNA.

It turns out that it's kind of like becoming a genetic ancestor is a little bit like a medical lottery. Maybe you have 2,000 years ago, maybe 15 million ancestors. But maybe only a

couple of thousand actually give me DNA.

And the ones that actually do give me DNA, they're the ones that kind of want to cost that. So by all intents and purposes, to first approximation, this is a crazy thought. The majority of my ancestors don't give me any DNA.

All right. So that was one crazy thing we found out. That turns out to be important.

Because if we now play that simulation forward, if you imagine if there was Adam and Eve created it in the behind the creative garden, and then they started having kids and kids after them played after them. And on this diagram, every now and then, they're going to read with people outside their lineage, which is what the story was. And that'll dilute things.

It turns out that it turns out that pretty quickly, it turns out that you'd expect that they don't leave any DNA. That's a crazy thought. That means that Adam and Eve, if they existed, if we just go and turn the products from it, they don't pass us any DNA.

They certainly don't pass us any DNA that we recognize as theirs. And so that means that there's actually no evidence one way or the other about whether or not they exist, and whether or not, even that they were de novo at something correct. What we do know is that they and our brother, they went outside the garden.

Of course, those raised a lot of theological questions, and that's actually part of the fun of the conversation. So that's the thing too about this. If we're going to be concerned about genealogical ancestry in terms of genetics, the other big surprise is that genetic common ancestors, like for example, white chromosome Adam, have you guys heard of that? Or a mitochondrial youth? They all arise over 100,000 years ago, maybe 200,000 years ago.

There was a little bit of debate about that, but the fact matters is a really long time ago. And then they would come from people outside the garden. But genealogical ancestors are very different.

Genealogical ancestors arise in just a couple thousand years. And I looked at this really carefully from the scientific point, and you have explained it in my book as well, that if you think about everyone being everyone from 180 onwards, from when Jesus walked on earth, and asking a one, do people arise? Are the ancestors of everyone here, maybe some people in the past? It turns out that they arise about 6,000 years ago. About here, most people across the earth are the ancestors of everyone 2,000 years ago.

Isn't that a crazy thought? Once again, I did not expect that one to this. I just wanted to know where things stood. And I've had a, it's funny, I've actually put a paper that I wrote about this, that the 6,000 years ago was not an endorsement of the specific date.

It's just a consequence of the math 4 plus 2 equals 6. Because some reviewers were thinking it was enforcing that. I mean, we don't know. The fact of the matter is that having to be if they exist could have been 600 or they could have been more anytime more ancient too.

So this is the idea that really could make sense to the best understanding of science right now. That may be a reality in this thought experiment at least. It is that there's evolution that's happening, but that God creates Adam and Eve in a special garden, and then they fall, and it went falls into civilization as we see.

Now for a scientific point of view, or sorry, about a scientific point of view here, we'd see evolution as the right of civilization, and Adam and Eve fall into a blind spot. And then from the view of Genesis, we would see the story about Adam and Eve in the garden, and they fall in the rise of civilization, which is the key themes of Genesis. And we've seen the peripheral vision.

There's these other people out there, Cain's wife, and Nefil and that sort of stuff. Maybe, and we see them falling tattoo, maybe both these stories are true at the same time. That's the basic premise of the book.

Now, you might say, I'm not really interested in this, because I don't really think evolution is true. I don't know any of those, because I'm an avox reader, but the thing about it is that both these stories, both apart and together, bring us to really grand questions about what it means to be human, how do we live a peace with one another, and how do we work with other causes of agreements, how do we be trustworthy, even when people disagree with us. And say it even brings us into an ancient conversation.

One of the themes that comes up repeatedly in this conversation was racing racing. And several chapters I really thought hard, but how do we think about people who are different than us? And I went engaged with them. How do we think about racing in a different way? One of the most surprising things that we actually find when we look at science as well is that when you look into our deep past, we see all different sorts of different types of human.

But when we look in our current moment, and this isn't political practice, this is just where the data leads us as scientists, and we discovered this really over the last 50 years, is that all humans across the globe are the same species. All the differences you see are really primarily culture and are skin deep. Bring us to questions about the nature of progress.

Bring us to questions about our impact as humans on the rest of the world. Bring us to these questions about what it means to be human. Really the purpose of the book isn't to tell you what's right or wrong or just percent, but a lot of other people do that.

Really try to invite a larger conversation. Other people are entering. One friend of mine, let's consider a friend, though I'm not sure what he would say, is Jerry Coyne.

I think his, the title of his article is pretty important here. I don't want to read it out loud because if that's what you feel, it's okay to walk into the conversation too. He wrote an article saying, "Bogus accommodation, something turn about many of his real people, supposed by a murky, quasi-scientific theory." What I'm really glad about is he didn't call it pseudo-scientific.

So that's quasi-scientific. What it really is is that it's scientific, it's science-related, dialogue with other things. There's more than just science here, but it's good science.

And I like Jerry. I'm looking forward to seeing how the conversation develops. Nathan actually wrote an article in the essay today.

In fact, Jerry was responding to Nathan when he wrote that article. I think it took some courage for him to do that. There's a risk involved.

And I think the reason why both of us feel like it's worth putting time to this, is he said, is whether or not we think that or any part are important. It's pretty clear to support other people. And we want to make space for differences, and that's part of our system practice.

So with that, I want to invite you to that conversation. Let's gather on the fire, to that grand, large conversation that's been going on for thousands of years, and wonder together what it means to human. Nice lot.

It has been interesting. It's been fun. I'd like to think that this is a pattern for me of seeking out people different than me, because you don't learn anything from people who think the same way that you do, right? And live the same way that you do.

I mean, every way you meet, know something you don't. That's true, but people who are very different from you have the most to teach you. And you can disagree with someone and have a really long conversation and not change your mind about a thing, and still learn a lot about your own position, about what makes other people tick.

And when you sit down and talk to a creationist, people say, which Josh is not a creationist in a traditional way, but, you know, you build empathy and you build understanding that they're driven by the same thing that you are. And that can't be such a bad thing. So we have a lot of fun in the risks are not as great as I thought, but I had to say something about Josh knows this and maybe you don't remember, I was on the plane towards that workshop that he showed me.

And it just sort of dawned on me that I'm going to be nervous to find it. I'm going to be surrounded by a lot of people who I don't want to know probably what they think about

me and my life, you know, social political issues. And so I'm kind of really scared, so I'm nervous and he can talk me down.

And it would have a great weekend with a bunch of people who I know I would have very little in common with on social political issues, but we were talking about big scientific questions. It would be a great time. So I can't find it that quickly, but I got, I can quote it almost remembering because I thought it was really hilarious.

He said, you know, so he agreed to come to this, which I thought was great. He wasn't the only atheist there, but I don't know if you knew that. I didn't.

And he texted me after he lands and said, "Oh, so it seems like a little bit late to worry about this." He says, you know, I really, I just realized I decided to be, I just decided to be in a group full of a whole bunch of conservative Christians. Would you please pray for me? And I told them, you know, don't worry about anything. You're my guest and the house rules all the way up to you.

Well, they don't. They don't call them a queen. Just let me go.

Now, when you went, they treat you well. They did treat you very well. I think actually that they, I think it was fine.

I got a lot of comments about you and many other atheists. I think a lot of Christians were accustomed to talking about this idea just amongst other Christians, like kind of huddled in the corner or being like a billy group or something. I don't know.

I think they were just surprised at, oh, wow, there's actually atheists who go well out there. And they actually care to listen and understand. So I think that, it did a lot of good.

Well, Jefferson, you brought it up. Can you tell us the story of how you two met? So let's see. I, so the Discovery Institute for the, any of you who know it, is the, they call themselves the intellectual home of the intelligent design, which I'm more than willing to let them have that label.

For 2017, Joshua was their public enemy number one, 2018, it was me. And I stumbled into the television. It's like, it's very, I mean, I actually like engaging them.

It's very flattering. I do not. But there's like, there's not really dozens and dozens of articles about me and me at this point on the website right now.

Yeah. And so he reached out to me, he reached out to me, because you noticed that they were firing at me and you're like, hey, what about me knocking? He just, he was, I think he was jealous that I was hitting other negative attention. No, I'm kidding.

Again, but he reached out to me and just said, I noticed that you're taking a lot of flack from them. I started this peaceful science forum and maybe you'd like to come on and

talk to somebody that she's out. I was like, oh, sure.

That was, um, mid 2018, like the summer of 2018, I think it was. And, um, because I accidentally entered the intelligent design conversation because of the book I, human error. Sorry.

Human error. My second book. And, um, I really didn't think anyone in the intelligent design movement would even go as the book.

Why would they read it? I, I was very much taken off guard by that. And they, they really had come after me. And so I sort of, but I thank them for that.

First of all, brought us together. But it also sort of turned me into a defender of evolutionary science on the public stage. I'm, I'm happy to do it.

I didn't think I was going to be spending my life doing that, but here I am. So are there some of the risks you mean when you say that? No, he means being a public atheist associated so closely with a very Christian idea. I mean, my, my name is only Bojack here.

And, you know, I didn't tell you this, but I didn't think it over. I feel like the hard thing about whether or not I wanted that because a lot of my colleagues are, and Jay Cohen, for example, we had had nothing but mutual self praise. And then that, so I mean, I'm sure we'll be responsible for it.

But why was it worth it for you to take that risk and maybe pay something at price? Well, at this point, I was like, what do I have to lose? Because right now, I think the world is hungry for common ground and hungry for a peaceful dialogue. We're so divided every front, right? And religion and sciences, you just map that onto every other issue. And so when I was thinking about my, my publicly image, if I'm going to be cynical about it, does the world really need another very angry, dismissive atheist out there telling religious people that they're stupid or mentally ill or whatever? I don't think, but first I don't think those things.

So I wouldn't do that. But also, you know, maybe it's time that we change that conversation. And so I think that public atheism has a bad rap because of, because of a couple of decades of very angry, nasty rhetoric that I think we can do better than that, while still being true to whatever.

I would like to lead with kindness and understand. Yes, with the risk for me, I mean, I put this forward seven in the second institution. It's not a Christian organization.

It's a leading science place. I, you know, I am a Christian, but you know, this isn't my job. My job is to go to, you know, more standard scientific work, which is what I do.

Most of my time. And when I actually put this forward initially, I didn't have tenure. So I didn't have that protection.

So I kind of got the lessons to that situation. And there was a couple of points where I didn't have to sit down and conversations with my wife about the mental risk that we wanted to tolerate in our lives. And way, you know, what was going to happen there versus our willingness to be a truth won't public about things.

And I mean, there were hard decisions. And I think honestly, if I've known the amount of challenges that would be ahead over the last couple of years, I think I'm probably going to thought a little bit longer. I'd like to think that I would still make good choices.

I think it's, you know, sometimes it's not always costless to do it. It's right. I think one thing that I've actually learned over the last couple of years, you know, 2018 WaaS writing the book was the 50th anniversary of Martin Luther King's assassination.

My father was alive. And so this is actually one of the themes that's there in the book. If you look for it, I mentioned the first chapter too.

It's in the dedication and dedication. What's my father? And it was very, one thing that really struck me about this is I was like reading over Martin Luther King's writings and looking at a story over the last over that year, 2018, I was writing this book, right, was recognizing there's like a difference between conflict avoidance and seeking peace. And in fact, seeking peace sometimes actually creates more conflict.

And so if you're taking like a conflict avoidance approach to like the great challenges and fractures and fights in the world, well then it ends up sometimes actually just perpetuating it. If you take this view or you know, you just don't like the people that are disagreeing with trying to scoot the book conversation, that's can make you feel very self-righteous. It can make you feel very safe.

But it's not actually that hard work that we're calling to where we actually put ourselves into places that can put us in personal hearts. And I'll be really clear, I'm not lying with the king. That should be obvious.

And I don't think I'm going to get shot for what I've done. That's not what's going on at all. I'm not trying to equate myself that.

But I think what I saw in his life was a different sort of relationship with conflict in the world. Like when he saw the conflict in the world in a way that I think I want to be like that too, he actually is going to put himself a little bit in harm's way to do his part to actually seek peace rather than merely just avoid that conflict in a little way. Thank you.

Some of us were talking over dinner or anything on Saira. You couldn't be with us. We're talking about the recent New York Times article on the cancel culture.



I don't know if you saw that. Sort of the ways that we name call, we're quick to label, we're quick to distance ourselves. The polarization of the states right now.

And I wonder if you guys could speak to that sort of and you sort of have been. But we're here with University crowd. What would you say to the 20-something that are here about how they could build media? Yeah, I mean, I think I definitely have a free speech advocate.

I think that the cancel culture that that has the negative reaction actually to the stereotype about cancel culture has been a little bit more blown in my view. I think that both sides are still more re-acting. In the end, if you talk about cancel culture with media figures, for example, like the diction problem has recently been targeted at the cancel culture.

I watched the first 10 minutes of his most recent standard special because I've been a fan of this for a long time. And the recent point where I wasn't happy with what I was hearing anymore, I turned it off. That's it.

And people stop listening to something that's offensive to them. And then that plays out that that's enough, right? I mean, it's a good system, it works. Nobody's going to jail or, you know, say, writing petitions or anything.

You just don't watch it. It's offensive to you. However, on the other side of that to repeat what I said before, something in these comedians, so that's just a little different than on big issues.

But if you have a speaker at your campus who everything out of their mouth is foreign to you, is upsetting to you, that's probably the person you need to go to here, actually. And listen, try to understand why they think that thing. You will probably not change your mind but you'll sharpen your arguments, sharpen your own thoughts about that.

You'll understand why you don't agree with those things. So I don't like cancel culture in general, but I do think the people who freak out with cancel culture are won't react in as well. So I'm in my position somewhere in the middle there.

I think that free speech is important, free thought and free exchange of ideas or how all of us get smarter and closer towards building, you know, the society that we want to have. At the same time, you know, there's, you know, incitement to violence is a real thing that is important to stand up to. So in the end, we all agree there's a line, right? There's all, we all agree there's some speakers that have never been appropriate to have in college schools.

So that's what I don't like when people try to pretend that there's a, that this difference is bigger than this. We just don't agree where that line is. And even in that conversation, I think is important to have.

Yeah, so I would say that I would say I think that there's a value coming back to a classical sort of liberalism. I don't mean that in a political way. I don't know, I don't know.

And really, I think we have to ask ourselves what's more important to have a display of morality or to persuade people because these things are actually somewhat mutually exclusive. Either we can, you know, if you're a young earth creationist, we're not going to, let's say you're a young earth creationist, you're not, I'm a pretend like that. I can either ridicule you and just talk about how stupid your idea is to kick you out.

That's one way to approach it. If you're a racist, I can do the same thing. Now what would happen if I do that? Well, maybe you kick your out and feel good about it.

And when you would, you know, feel that way if there's an air in the creationist out there or whatever, they're going to feel very attacked. They'll probably be quiet about it. What's interesting is, is that most people going through that experience aren't actually going to change their minds.

We actually know about this a little bit from how the brain works. What happens is it kicks in like a fight or flight response. And that actually literally turns off your ability to reason.

And so if I do that, and I might have a great argument that you're wrong, but you won't actually even be able to hear it. And one of the more surprising things that I've noticed is I've actually sat down and listened to people who are young earth creationists or even racist and hear that explaining what they think and just kind of respond very calmly back and asking questions, even saying, you know, I'm not here to change your mind. I just want to understand you.

That's actually been, there's been two things or two reactions to it. On one hand, and we've actually been out there on online forums, which is quite a bit actually, which is totally against fast practices, but very interesting things happen on my turn to love. We see like, I think two types of responses to this.

On one hand, I think a large number of people feel like it's a breath of fresh air. You're like, wow, you're actually going to listen to me. And we'll listen and we'll hear, and I'll tell you, over and over, and I see people change their minds.

That's one response. And another response is actually really puzzling until you really understand it. There's a lot of people get really angry.

They're actually more angry with you sitting down until the 70 kind than they understand them. Then they are if you actually read it, and that's really make us wonder, what are they getting out of the ridicule? And what's going on is that if everyone in society is ridicule, and you're telling your ideas are wrong, and you're stupid, and you don't think it even deserves a hearing, well, you have a great excuse that for why your ideas are so

good, and no one else believes in me. Right? And so one of the best ways I've found out, and I'm just curious to have this to actually be kind to them.

And to actually listen. And if we just kick people out, you think different than us, we're missing out an opportunity to persuade. I also say too, and this is going to be the scary part of it.

I'll tell you that one of the things that I think is so beautiful about this, I think it's most part of what it means to human, is that as we kind of enter into that mutual exchange of authentic conversation, what a person that responds with anger, when it's on kindness, we want to understand and we want to understand, almost invariably it ends up changing us too. And I'm not saying that we're necessarily going to give up on like she believes or whatever, but I think it ends up changing us. I mean, what I'll say is I've definitely been changed by my experience when Nathan has taken to the time to understand what he's coming from on several different issues, as though the places I think he might disagree.

I think, I mean, I want to speak for you, but I think my experience has been, is that as I do that, there's a beautiful thing that happens of where you go from a total divide to being something where there's actually a true connection that happens that really change both people. Great. Thank you.

And just maybe to follow on that, could you tell us a little bit about your blog, Peaceful Science and what you're hoping that does to the conversation? So Peaceful Science is a start-up blog, a little book, we're a circle watch in an organization. We have an online forum, we have Facebook stuff to join the conversation. Part of the focus is the book, but we're really trying to engage larger questions about what it means to human and approach those places of conflict in a way where we can really seek to understand and be understood.

I'm excited about the future and how we think about things like AI, and even going to things like sexuality, Nathan's book is on homosexuality. Well, that would be a fun thing to talk about when people disagree, right? And to do it in a way might be a little bit different. I mean, I do think that there are things that are right or wrong.

I do think that there are reprehensible ideas out there. I just don't think that we can make progress in anything, unless we're talking to the people that we disagree with most. And I do think that there's a place for science in this.

I mean, one thing that I think is really important about science is it doesn't give us values. We can often overlay things on science and kind of gives us more of a way to kind of just engage what actually is going on in the world together. And then we can start to sit down and talk about what our ethics are and values are engaged with that.

At least maybe we have a branding in something, essentially, a bit more real than just what our instinct and opinions are. What do you think? Well, you actually chose it to be pretty involved. Why did you do that? What's exciting to you about it? Well, it was bewildering at first just because there was, you have to figure out who the personalities are and there are, what's the standard of young earth creations and there's intelligent design advocates.

And then there's a lot of scientists and there's a lot of theologians, philosophers. And so at first I was trying to keep track of all the personalities. And then I sort of realized to just understand that it doesn't matter who they are and where they're coming from.

Because that just invites you to try to see something different than what they said. So if I know someone was a theologian and even if they say something reasonably scientifically sound, you know, my antennae go up, I go up here, but what's the theologian? What are you doing talking about science? You're a theologian. And that's the wrong answer.

That's just the, why don't I just take it at face value? And that's what I learned to do more of in the forum was to stop trying to think about the speaker and just talk about the science or whatever what. I treated only really to talk much about the scientific topics because the forum is organized by topics. And so there's a lot of, there's more theology in science, but it's always science and form theology.

So I've learned a little bit. But, and I do have a new found respect actually for theology and philosophy in the sense of how systematic it is. And this is going to sound very strange for me, if you say, but it is, it's almost like reason, like just pure reason, like an inverted sense of like reason in on itself, human reason, reasoning, where it has to sort of, hey, it might be amusing.

I think we're going to talk about the evolution of religion. But it does have this like logic to it that spins and spins and spins and spins and spins. I mean, probably is that at the center of it is in what I find most convincing.

But I do, but I do have a new found respect for the disciplines of theology and philosophy of religion in the sense that they are systematic. In other words, they approach it the same way, which is reason, logic, evidence, what the evidence here is, it bases different, but they do try to reason their way through them. I think there's also emotional as I thought it was.

I think a lot of theologians also really want to engage with good science and they just have a great and great authentic scientist to engage with. Yeah, I talk a lot of times, I was expecting to hear, well, it's just a matter of faith. I really expected that to happen a lot and I don't know that I've ever heard on the forum.

No one just resorts to, well, it's a matter of faith and I can't explain it more than that. So

I'm impressed by that. I gotta tell you, one thing that surprised me the most, is that sometimes more than the forum, there's actually a lot of stuff going on, but that's just going to be one more visible place.

You guys are students, I hope you don't get too sexy to that because it'll take over your life. Taylor Reynolds in the back and tell it out. But anyways, one thing that actually really surprised me, and it actually makes sense is how a Canadian atheist has been and how to interpret scripture.

I'm like, you guys really believe this is true, I do care, but then there's something actually, let's just grant, if you're an atheist here, I get that you don't think we've got exists, I get that you don't think that the Bible has inspired it. There's something very gripping about Genesis, which is a reason why it's actually part of great literature out there. There's like, has two accounts, Genesis 1 and Genesis 2, their intention in an interesting way.

It really engages these questions. One of the things that might be any consumer actually is that Homo sapiens spread out across the entire world, replacing all other sister species. There's maybe only one other, two other times that's ever happened that we know of in life's history.

And then the weird thing is, as you look at Genesis and it talks about this weird blessing and like, the curve meant to go spread and multiply across the globe. And then in theology, there's this high emphasis that we're all unified as the same type of human and we find out in the science that we really are all the same type of human. It's just a really strange correspondence.

I'm not trying to say that science is teaching scripture or scripture teaching science. I'm just saying that these are actually speaking to the same questions in a surprisingly similar way. And so it's not surprising, that's how we think about origins from a scientific point of view.

Those are the sorts of questions that are in our head. Those are also the sorts of questions that we have that are in Genesis. Adam and Eve actually appear in the published scientific literature often written by atheists.

You know, mitochondria, E, and then why come as an atom or actually coined by, I'm pretty sure we're atheist scientists. It was really marketing because it clearly has nothing to do with Adam and Eve. But that aside would be what happened into it is they're tapping into this common culture we have.

We're all asking these questions about who we come from. Another thing that might be unique to him and maybe one exception is elephants. Maybe, I'll say maybe, I don't know if you can tell me if you necessarily know what's going on with this, is like awareness in

the ancestry.

The long chain of manuscripts, I don't mean just the right thing in there. Like my father died in 2018. But one of the most important things that happened before he died, it was unexpected.

There's a heart attack of seven years old, which is pretty young out is. It's my two-year-old son that Thanksgiving before 2017, I was able to spend some time with him. And we got some pictures of him.

And I know that as Kaleb gets older, one day he'll probably share those pictures with his kids. And their kids, my son, share it with their kids too. And that's meaningful to me.

Because this is my father. And I think about his father and his father and I can't even remember that far back. But whatever it is, I know that there's a long chain of ancestry from which I derive.

And I know that there's, well, I wonder if there's public life in that, there'll be a long chain of ancestry ahead of me too. And I'm part of that stream. Awareness of that stream might be distinctly human, because I've even ran here and I'm just not even able to have an awareness of each one of your grandparents and kids.

And I don't know how you're talking about this, except to say that, you know, ancestry and wondering about that, and all we came from these questions of race, kinship, fraternity. You know, I think that humans might be the only animals on the entire earth that when they're adopted, go on plus to find out who their adopted parents are. As if that actually has anything to do with who they are.

And in some ways, we know, actually, where we came from matters. And in fact, I think that we might be the only animals that are having very constant. And our writing books and how the conversation is like this.

Yeah, we are very continuous in the animal. I agree with actually everything that Nathan said. But there is this something very peculiar about this particular ape.

I think morality, I'm not so sure it reduces purely to science, but science has a lot to say about morality. It has a very, very, for sure. Yeah.

And what we discovered in various fields of science actually tells us a lot about what I'm all about. And actually, you don't have to look very further than the kind of animal studies that I referenced here, because a lot of these studies of animal emotions and animal behavior, in the process of doing the experiment, it became clear that the experiment wasn't ethical. Because the animal was experiencing pain, it was tremendous amount of pain.

And the tremendous amount of suffering. And I don't know that you would have discovered that in the other way. And so I think that the avoidance of suffering and the encouragement of flourishing are questions that have direct bearing on what is moral.

I don't think it's purely reduced to that. And I think that science tells us a lot about that, about what suffering is and how it works, and how it avoided. And I think that I couldn't reduce it.

I'm not a pure reductionist. That science will just replace the questions of ethics and morality. But I think science informs it.

And I think that particularly the science of neuroscience has a lot of teachers. But to me, the fact that almost all the religions in the world come up with very, very similar moral codes. Now I've been able to look very, very similar in terms of interpersonal morality.

And I don't think that's coincidence. And I don't think it's arbitrary either. I think that a lot of that is shaping our social evolution as social creatures.

Because we are, we are evolved as a strictly social species. All learning, for example, human beings takes place socially. You never learn by yourself.

You think you do because you're just you in a book. But unless you, that book, you know, somebody wrote that book, right? And so all of our learning is social, all of our morality is social, and how we interact with other individuals. And the basis of that.

So from altruism, which we know exists in other species, and we know it's function as a self-interested, but also group interested in motion. And I do consider morality a form of emotion. And I think you can arrive at almost the exact same Christian morality, interpersonal morality, anyway, from science, from scientific point of view.

And to me, when you strip away like a lot of the mythology from all the religions, you could get down to just the core morality. It's almost all the same. And that speaks to me of a universal source of morality, which in my view is our evolution for social research.

And that's why we arrive at that same place. Do you want to respond? Well, I would say like actually, like how you put it. So I would entirely agree that I think science informs morality.

And I guess I'm just emphasizing that it can't be reduced, morality can't be reduced to science. I think this is actually fairly important to focus on because people have done some pretty horrible stuff in the name of science. There isn't actually which things like ethical boundaries in the science, except for the fact that those humans doing that have this universal notion.

And I agree. I think that evolution is part of shaping that, though it's interesting that here

are also the theological reasons that it may be. And I think the way how I learned it, and I think this is this makes some sense, is that if you think that God's guiding and illusion in the sun, or at least involved, or in the man who's provisionally well somehow, and so maybe it happens throughout the whole show, maybe it's, I don't know.

But the idea is that God actually kind of puts on our hearts some sense of a moral law. And it is actually universal. People do see that thing that way.

Yeah, I mean, I think the golden rule is it pops up in every religion pretty much in one way. Just to be clear, though, the horrible things happen to the name of science. The same is true for religion, right? I think it's not.

I agree. I just can't let that go into that. But it's only when atheists get them off.

I'm just kidding. Yeah, let's be clear. Yes.

I think both religion and science are used for wrong, to be clear. Yeah. And scientists, and in fact, I gave a whole lecture on the incredible bias that scientists bring to their work, and how they can come to really, really horrible conclusions with the same set of data because they have a preconceived notion of how it will work out.

Scientists are not immune to bias. Regidists, bigotry, racism. They're not immune to any of this stuff.

Yeah. One thing that's actually been with my book is I came to history of an idea called polygenesis, which really taught that instead of what we know now, we actually only figured out fairly recently. I mean, the evidence is just so strong that we're all the same species to the ground.

I was a little bit not intuitive, maybe for some people, and this is not political correctness. It's a very evidence-based statement. But for a long time, scientists just thought it was very clear that evidence shows that there's different types of people with different intellectual abilities, and they're based in different regional areas, and that good society will treat these people differently.

I mean, not every scientist, but that was kind of seen to be like the fairly obvious scientific conclusion. And really horrible things happened as a result of that. To be clear, there is a religious version of polygenesis, too.

So I'm not trying to say it's a crazy scientist into this. It really really rose actually about 500 years ago where they discovered the new world. Because people looked at the Native Americans over there, and you know, colonialism, they saw all these different sorts of people, and they all looked very differently over the cultures.

We didn't realize how important culture was to how this worked. And they just thought,



"Oh, obviously, those people have been disenfranchised." Well, obviously, those people are different species. Well, obviously, you know, we can make boats in the civilization and they can't.

So clearly, obviously, this is the smart race, and to be clear, it wasn't my race. That's up. And so, I mean, it was a pretty large topic.

And it turns out that that's what it looked like on the surface, that it was just totally wrong. I mean, if you look around in this room, if you just look around for a moment, we'll see there's people all fricking sorts of colors that you can imagine. And in fact, it's kind of ridiculous to think that, you know, just because you have dark skin, maybe, you know, you can't go to college.

So we can't even imagine that. But even if you think about how recent that is in our history, really, within the last 50 to 100 years of having this joint of experience to know that you can actually take people from across the world, put them all into modern education. They're going to come out the other end, like they're all the same.

That's a new experience for society. We didn't know that 500 years ago. And, you know, I think it's really partly science, though not only science, that's got us to help realize this now.

And yeah, so I think there's, I do agree with you, is what I'm trying to say, that there is something to be said for the role that science has in Congress' development. So the questions are piling into my phone, so I better take them from the audience before people get up and leave. The one that comes up comes up, how do you reconcile the flood, which theologically destroyed all life but one family and the animals preserved with your theory of Adam and Eve and evolution? Oh, yes.

The book gets into this. It's actually fairly easy to deal with. If you actually look at the original language, it doesn't say all mankind.

It says all the descendants of Adam in that area. So it's not talking about the whole earth. They didn't have a concept of planet earth.

It doesn't mention the earth. And so they talk about their world. I mean, the other way to put it is that, you know, there's one woman in my life and then tie my entire world.

There's one woman. Your name is Victoria, he's Swaminus. He's actually saying, "This, there are no other woman in my world." Does that mean that you guys don't exist? Well, half-audits, you don't exist, and you don't exist, of course not.

I'm talking about a context of what I'm out by my world. That context is, if you read it, from a literal point of view, is just wideningly obviously clearly talking about a narrow context. It's not talking about a liberal thought because they didn't have a context or a

liberal thought.

It doesn't even say the people across the room. It says atoms, which, you know, there's a very specific meaning that a descendant of Adam and Eve. So what I think of means is that it's entirely possible with a large regional flood in the middle is that that destroying doesn't actually say kill.

It says destroy, which can also mean displace that either kill or displace a large number of Adam and Eve's descendants matter. Interesting. I have.

Yeah. All right. Yeah.

Okay. So we'll keep starting. I signed on to this one.

One in a second. Here's the next one. Probably also for you, Josh.

When you say that people outside the garden were fully human, does that mean that they had human dignity or were they made in the image of God? Yes. I think we think of losing separately. Okay.

So the image of God and we're going to talk about human dignity and worth. I think absolutely I had human dignity and worth. And I explained several theological and scientific bases to support that in the book.

There's nothing genetically salient, the difference between them and Adam is that we wouldn't get to tell otherwise. There's a very good reason to think theologically. I give a couple answers for how I support their dignity and worth in the book.

And I invite theologians to get more. I think that's going to be a topic of a lot of conversation going forward. But absolutely, I think it'd be crazy to think that they did not have to be worth.

That's the first thing. Image of God. I think the important thing to recognize about the image of God is that I mean, I gather with a whole bunch of theologians in a room together and ask them what the image of God was.

You were there. They couldn't agree. I want them to God.

And you might find that surprising, but they don't even know what it is themselves. It turns out to be several different views. And another pretty salient point from my point of view is you ask them, well, so does the image of God begin with Adam and Eve or could it have been in the people outside? But it turns out they can't even agree on that.

So, and that's okay. Because ultimately, I think the key issue is about dignity and human worth. And there's been a long conversation in theology literally for centuries though with image of God.

There's a lot of debate. It's actually a pretty fun conversation because it ends up being a discourse on what it means to be human. But I think some theologians are going to go the way of saying that Adam and Eve are uniquely in the image of God and where the sentiments are.

But the people outside still have dignity and worth and they're going to mean image of God particularly. And other people are going to say that the people outside the garden are also in the image of God and Adam and Eve aren't unique in that, whether they're any brothers that he's been going for. And there's already people starting to publish papers and books on my work already even though that's going to be released yet, which is kind of fun to see.

And we're kind of seeing those differences arise. I think rather worrying about what's going on in the image of God, I think the key thing to think about is actually that first question about human dignity and worth. Right, anything about the question for you? Can animals contemplate essence and existence? Can animals worship? I'll take this as an inverse order.

Worship, I can't see a correlate of that. I'm interested in the question of the evolution of religion. But no, I wouldn't see that.

Worship? I think worship is what we're using. Yeah, well, that's what I'm hesitating. I'm not even sure what it would mean.

I'm not entirely sure what it means for humans. So when an atheist looks at something beautiful on science, wow, that's amazing. I think that's kind of like, I'm not trying to say it.

So that is like a worship of God and it's kind of like that threshold of worship. Does that make sense? Yeah, so you're talking about like a feeling of transcendence or, yeah, you look at the star sky or the whole person you say, you know what, you're talking about that, I'd say. I mean, so get me corrected in this way.

Yeah, I say so. I'm not so sure about that. So they do contemplate and deliberate.

We know that. They think there's indecision in animals. Well, they're sort of doing the same thing.

We do, or like, oh, should I, should I go over another inner conflict? Because basically if you think of decisions as sort of a lot of inputs and what humans have to a great degree more than animals is the inputs are recursive in the brain. We're not just stimulus response. The stimulus is probably the brain and it runs with lots of inputs that come just from the internal internal sensors, so to speak.

And animals have some degree of that. So they do contemplate, they deliberate, they

have mental concepts. They can, they're aware of things that aren't right in front of them.

They have the theory of mind. They can understand that some of them can understand that another individual has a different point of view that they have and they can even dogs can do that. So I'm not sure about the extractions or what I think we're getting at here.

That's the closest that we have to a really uniquely human thing. We're not even sure Neanderthals did pure abstractions. There's very little examples of Neanderthal art, for example.

There's a few that we think Neanderthals might have done. It looks like it was probably copied in a sense. They observed it from modern humans and said, what is this? And they sort of tried it.

And the idea that they can have abstract thoughts, very mostly I have to probably just don't agree that they, Neanderthals can do that. So if Neanderthals could have been certainly other animals, could have them either have that abstract thought. And that's really what symbolic thought is, what makes, that could greatly forward that happened with humans about 65,000 years ago, where we have this symbolic thought that's probably the language where we can have conversations with ourselves.

So, I mean, there is a goal. I mean, I don't want to pretend that and that humans are just another African-Asian. We are an African-American, but we are, you know, we build scratch papers and write poetry.

So there is a goal there. But I think that the much of that goal is, as I said, abstraction, is an abstraction. And it doesn't drive into behavior as much as you think it does.

But we spend a lot more time thinking about our decisions than I think we should in a sense, because our decisions really are driven by emotion and drive and instinct. A lot more than we think. We contemplate a lot and then we make the same decision that we would have made on the spot in a lot of cases.

So I think the abstraction, that's the meaning. But, so this is for you, Josh. As the Apostle Paul says in Romans 5, "One man, Adam, brought sin into the world.

How do you drunk person and death outside the garden prior to Adam's sin?" So once again, this is actually another part that's dealt with writing the book. I really encourage you to look at this because it's been looked out by actual expert theologians and they actually endorsed it. It's a pretty interesting idea.

But I'll give you a little bit of a thumbnail on it, but I'll say that, I'm not trying to say that I have an answer per se. What I would say is that I think I've shown that it's not fatal with

a lot and there's a really interesting conversation starting between a lot of people to really figure out how they make sense of it. And it's going to include people who are Christians and people who are not Christians.

It's going to include scholarly theologians and also random people in the church and on the street. And I think that's actually the fun thing about this book is to see questions like this being engaged. So what I think is going on is that scripture is really fixated and focused and nearly spilled on Adam and Eve and their descendants.

And so if you focus on that story, it is entirely true. Then Adam and Eve bring death and sin through all of their descendants, who are all of us. And it's not talking about the thoughts of God.

Something else happened with them to bring them death or whatever. It wasn't Adam and Eve and Rod. Now Adam and Eve's story becomes everyone's story.

That's what we're talking about it. But that's what it's about. It's not talking about it.

So the garden, you can read Genesis 2. It's very clear about third of the chapter is focused on laying down. There's boundaries to the garden. And then the whole story occurs in the garden.

And it actually says that the way how death comes to Adam and Eve is to get kicked out of the garden. So if you ask the question, what's going outside the garden? What's death outside the garden? So I think the text of Genesis actually makes it fairly clear that if there's people outside the garden, they're facing death. And I think the question is of death and sin together actually and then resolving each other.

I don't think a good God will make immortal people that are doing horrible things to one another. I think that that would be true able to imagine a Hitler that lives forever. Wouldn't that be horrible? So I think what's going on is that that part of what was good about the creation that was there before is that, you know, humans were largely cooperative before the rise of civilization.

There was going to be bad apples every now and it was going to be murder every now and then rape and all that. But it would never be perpetuated from the generation to generation. Actually, we know it was deeply maladaptive to do the sorts of things.

It's part of what actually drove cooperation. So if you do that, you're pretty much shooting yourself in one foot and you're probably more likely to deny yourself because you're going to get kicked out of your community for doing things like that. Yeah, I know how much to say about sin.

I mean, not maybe the one Christian idea. I'm an expert on sin. I have a lot of practice.

But the question of cooperation and competition, which I would even reduce further to sociality and anti-sociality that you see, humans really didn't then take cooperation to a great degree. So you think it's a joint business not high level and hierarchical and planning. You can't and in fact, the whole idea of cultural group selection is the idea that so cheaters and selfishness will always exist.

So it'll always be part of it. And there's no evolutionary simulation that you can run that doesn't involve some of that. However, the group itself is competing against other such groups.

And when you remember that, so okay, selfish individual might occasionally win, but a group of selfish people never wins. So even if you can have temporary victories as an individual, if you're offspring proliferate as a selfish, self-interested individual, your group's going down. So selfish people can be generous people, generous groups can be selfish groups.

And you play that out over 60 million years and you have fairly pro-social species. Yeah, I don't want to say that. Like if we're going to take the Genesis story seriously, which we don't have to put, like I just said, enter into thought and scream.

I would just say that one way to see it is a guy kind of creates a humanity, biological humans, fully human people across the globe. There's seven at the desk, but they're not perfect. But that actually works out.

It's like a good world because, you know, it's people were doing a lot of good stuff, but there's no hip-hop that this lasts forever. That there's no multi-generational oppression of people. Okay.

Then the what civilization happens. I'll tell you what, the rise of civilization, we see in the past war forever, we actually found a very strong hypnotic signature from about seven to eight thousand years ago. It shows that around 16 out of 17 men got killed across the globe.

And the women aren't just fine because they apparently were, you know, I don't know, they were probably being like worn over, you know, but men, there's just the shark that dropped in population as about like, you know, close to one in 20, maybe 19 out of 20, maybe close to 19 out of 20, are just like, they just don't appear, you know, passing it with sentence on. And that, that really happens recently in history. Never happened anytime before that we know it didn't happen anytime after.

It's associated closely with the rise of civilization across the globe. And you look at what's happening to society now, you know, it's funny. Like atheist I talked to online, I think that original sin is completely nonsense.

I'm just going to tell you what, look at our world. It's very clear that we are currently

suffering from the sins of our ancestors. Anyone who hasn't figured that out doesn't have their eyes just look at ads, questions of race in this country.

If you know, it's me, it's kind of hard to believe that original sin doesn't exist. We're clearly influenced by the wrongdoing of our ancestors on a generational level that goes on and on and takes on a life of its own in a way that could never really happen to be for society and civilization. I think I should want to grant questions.

We have to really start thinking through this. How do we start dealing with these issues of generational? I don't know, you don't have to call it sin if you don't want to. I don't really care about all of them.

This is one of the one context I really do embrace the term sin. Did I talk about original sin? It's like, I mean, this country in the United States for better for worse, the original sin of this country is the complete displacement and murder of one group of people and the import of another enslaved group of people. The whole country is built on two acts of atrocities, right? Of white supremacists and atrocities.

That's the original sin. Here's the funny weirdness that I see. So I have a lot of very conservative friends.

Like I told you, I have lots of people. I'm sorry, don't judge me. I have a lot of very liberal friends.

I'm sorry, everyone else don't judge me. It's just interesting to me, like the conservative people I know, they tend to believe that original sin is really important, but think that they're only responsible for their own actions. The liberal people I know are entirely convinced that original sin is an unjust idea that's a complete fantasy, but they're very concerned about these sorts of issues.

I feel like they kind of got to get together and trade notes a little bit and find out that maybe there is actually an account of how this actually works, and that maybe even want to be the grand challenge is how we start to think through how, here's the way to put it. You guys are all college students. I'm maybe one generation ahead of you, so don't hold that against me.

I know, I think what's going on when I talk to people your age, I talk to you guys a lot. I think when I talk to you, you look around at what's going on in the world that your parents are giving you, and I'm too young to be your parents, to hold it against you. And you think, you know, I think we need something better than this, right? You agree with me? Some people are not, I guess.

That's good. I just say I think you can do better. I think we really can, and I think that's one of the great tasks we have to do, is that we have to find a better way.

This is not the way I'm being a society. You are younger. I want to be part of that too, but it's got to be bigger than me.

It's going to be bigger than Nathan. You've seen them have a different sort of society, one that embraces differences, one that tries to live in a different sort of way, and actually takes some responsibility. You know, my parents are from India.

You know, I'd hear it to this culture, I'd hear it to these things too. There's a point where as I enter the society, part of receiving that heritage that's living in this world and realizing that, you know, I want to live in a different way here too. I want to see a different sort of world, right? Seeing better than Adams Kingdom, and the way how theologian I knew it said, and something that starts to echo the Kingdom God, that looks a little bit more like heaven, which I'm pretty sure is not second.

So final question to Professor Wentz. Do you believe that Professor Swami Das' position on evolution makes Christianity or belief in the story of Genesis intellectually respectable? Yeah, that's the whole point of it in a sense. These two create a space where the evidence that science has given us about the interconnectedness of humans with, you know, with the common ancestry of all of these things, and where our species originated in Africa, and the waves of population migration that happen out of Africa, and the way through Africa, to everywhere else is the Middle East of course, but what we've always forget is migration happened in both directions almost everywhere you see an arrow.

You can also imagine backwards arrows too, so everyone, we've always been moving around and into breeding, and these common ancestors that arrived in the last 10,000 years, that's common ancestors of all people of all races, all nationalities, right? So it becomes intellectually respectable in a sense that it doesn't deny evidence in scientific evidence. That's what's important to me anyway, is that it doesn't do the trickster god thing where like, well, he just created the world with the dinosaur that was buried there, you know, like, come on, you can't really do that, right? But people do. So it doesn't do the trickster god thing, and it doesn't try to, you know, spin it a different way.

It lets the science be the science, and as soon as a religious person lets the science be the science, I'm willing to let Christianity be the Christianity, you know, and that's where, you know, we don't deny the differences, but we celebrate the common value. It becomes, yeah, then it becomes respectable. I think Christianity has always had respectability about it.

I mean, one life, I've raised it in the church, so I love my values. I know have that imprint on it, but I also have different values. I mean, I have friends now with people of all beliefs and faiths, and I find that their values are so similar to mine.

So it doesn't matter that I was raised in the church, it matters that I would raise my



mom, you know, that's where my values came from, I might have to. You know, that's where my values came from, and it came from his dad, and so on and so forth, before there weren't Christians at all in the world because it was thousands of years ago, and they were teaching their kids the same things, right? Don't do that because it's the wrong thing to do. And I actually believe that Christians get their morality from their evolutionary past more than they want to admit.

I don't think that any Christian in this room believes it's wrong to kill someone because it's in the Bible. Come on, right? And I've had a Christian say this to me before, like, well, you can just kill as many people as you want. Like, yeah, and I do.

I kill exactly the number of people I want. Zero. I've never wanted to kill anyone in my life, and I don't think anyone in this room is being held back because they're afraid to be judged, but they're being held back because they know it's the wrong thing to do because we evolved in small groups of people where there were harsh consequences to do that.

So, you know, what we think of as morality is actually an instinct of post-social and fear consequences, but also post-social instinct that we know is the wrong thing to do. We don't. Yeah, so I mean, I would say that all the conduct are biological.

Yeah, I don't agree. I mean, I think you're a very moral atheist. I think you're not a moral atheist, but I think one of the divides that I think has actually been very important for me to bridge is the gap between atheists and Christians in this conversation.

There's a book that is really important. It's my Randall Rowser. It's called "Is the Atheist My Neighbor?" And that's like a reference to the sword against American, in words, as a Samaritan, your neighbor.

I think that if I'm to follow Jesus, if you're to follow Jesus, if you're a Christian, I don't think we actually have a choice in our answer. I think the answer is that the atheist is my neighbor. And when we talk to atheists and we find out that, you know, okay, they don't agree with us about some things that we think are pretty important, but it turns out that most atheists that down go over to fear people, they were immoral, I don't even say that this is true of a anti-religious atheist.

I would even say it very coined. He is an example. I think he would gladly take on the label and make it anti-religious atheists.

I have to say, you know, he's been very fair to me. I really enjoyed, you know, my conversations with him. And sometimes what happens on both sides, I think it happens on the atheism, but I'm a Christian, so I'm going to talk about Christian side.

Is that Christians just vilify atheists and treat them like they're the common reason for all the ills of society? And I think that is just really, really unkind. I don't like the way it's

used to that to Christians. And to be clear, Christians have done some pretty crowded things.

And I'm sure what we know in our own and in our own static, these are those are crappy things. But the reality is, my colleagues in science, most of the more atheists are very, I'm going to have people, I have come to really deeply love, I care about. And I just think we need a treatment matter.

Once again, I don't know exactly who I got here, but we're just back to saying, I really like me, that it's a pretty cool guy. But I think there's just an opportunity, like I'd say, where we can, like I said, try and find a better way forward. Where we have significant differences.

I think we can also talk about those differences. And more than that, we didn't even seek out people that are different than us. And have the patience to just sit down and hear them out, even if we think what they're saying is vile.

Understand why and try to be understood by them and let that be in the house, even let them walk away thinking something vile and then just see what happens and see if it's true and strange that the matter changes. 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)