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Finding a Common Story? An Anthropologist and a Biologist Discuss

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The Veritas Forum

A conversation about human origins, evolution, and what's at stake followed by a Q&A with Dr. Pam Ashmore (UTC Anthropology) and Dr. Josh Swamidass (Washington University School of Medicine). Moderated by Dr. Michelle Deardorff (UT Chattanooga Political Science and Public Service). • Please like, share, review, and subscribe to 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 in God. Today we hear from Professor of Anthropology at the University of Tennessee at Chattanooga, Pamela Ashmore, with Associate Professor of Laboratory and Genomic Medicine at Washington University at St. Louis, Joshua Swamados.

In a discussion about human origins, evolution, and what's at stake, a talk titled "Finding a Common Story," moderated by Michelle Deardorf at the University of Tennessee at Chattanooga. I'm a biological anthropologist. So in other words, I'm a social scientist, and someone who considers evolution as absolutely of paramount importance to how I frame, conduct, and review research as well as how I understand the natural world in which we live.

As mentioned, I did both of my masters in PhD work at Washington University in St. Louis, where Josh is a faculty member, and I find that kind of fun for the forum discussion tonight. For those of you who might not know, biological anthropology is actually a subfield of anthropology, and it focuses on humans as a biocultural species. In other

words, we can't take the biology out of us, and we can't take the culture out of us.

Biological anthropologists do study our evolution. They study human biological variation, as well as our closest living relatives, the non-human primates. And as mentioned in my career, I have focused on the latter part of this.

So my research really involved looking at the adaptability of a big group of species called macaques. And they're incredibly diverse in the terms of behavior, ecology, and also physical appearances. Some of you may be more familiar with the macaques as Japanese snow monkeys, or as the rhesus macaques that have been used extensively in biomedical research.

I've also spent a great deal of time throughout my professional career, really focused in on science education. So I would like to now tell three very short stories, and I think that they will illustrate a bit about who I am and what I do. When I was a faculty member at the University of Missouri in St. Louis, I was the co-director of a hands-on experiential learning program called the Center for Human origin and cultural diversity.

This program was originally geared for middle school students. So they would come to Aumsel on a field trip basis and go through our lab based program. We then revised the program to accommodate high school students, pre and in service teachers, undergrads, grads, and even community groups.

Over the course of like six years, we put over 12,000 individuals through this program, ranging in age from eight to 86. One lab component focused on human evolution. And we discovered very quickly that the minute we use the word evolution that teachers, or more regularly adults that had accompanied students on this field trip, took issue with our use of the word or mention of the word evolution.

This initiated conversations that took time, and they would actually derail the ability of students to complete the lab portion of the particular session that they were in. Consequently, as the co-director of this program, I banned the use of the word evolution. So I wouldn't allow the facilitators who were typically graduate students and undergraduate students to use the word evolution.

Now my professional colleagues greatly criticized me for making this decision. But it had positive results, because the students would be tasked with questions. They were working with a very robust collection of fossil cast material about human evolution.

And by not mentioning evolution, it didn't sidetrack the progress of the students. They answered the questions. They actually then grasped various concepts about human evolution, and they were readily able to identify trends that had occurred over time.

Second story. For a period of time, when I was living in St. Louis, I had a Darwin fish symbol on my car. When I left my car at the long term airport parking lot, or even if I

went into like a Walgreens or grocery store or Walmart, I had often returned to my car and I would have little paper messages left on my windshield.

And some of them I found quite astonishing. Some of them, I actually very much appreciated because I would get messages from unknown individuals stating that they would pray for me. They would pray for my soul.

Would I please give Jesus a chance. And then I would also get messages saying things like, you know, you basically are doomed to go to hell. So there was quite a range in the messages that I've received.

And it made me stop and wonder, why did people automatically assume because I had a Darwin fish symbol on my car that I was then an atheist. That's my second story. My third story involves Dr. Deirdor.

In the spring of 2018, we team taught a class for the Honors College at UTC, along with a biology colleague and a religious studies colleague. The course was called from Dayton to Dover, focusing, of course, on evolution and creationism. As part of the course, we took the students on a field trip to the creation museum and the arc encounter in Kentucky.

What we saw and what I heard parents explaining to their young children left me speechless. And along with my biology colleague, pretty disheartened about what we observed to be a complete lack of scientific literacy. And helping people to understand what evolution is, and is not how it relates to our prehistoric past and our future.

And to appreciate scientific findings in research is very important to me. And I'm going to use a term that was shared with me by a mentor and friend. I identify as a non-theist.

I do have beliefs, but they don't necessarily align with a belief in the existence of some omniscient than being. So I will end it there. Thanks for sharing Pam.

Sure. I'm going to put my slides here until a little more. I'm Josh Swamidoss.

I'm a professor. Yeah. I'm a professor at Washington University where you were for a while.

It's kind of funny how worlds cross like that. Science is a small world. I'm a Christian too.

I cringed at some of the notes that you were getting. I'm sorry that Christians always haven't always been better to you. But the reason why I'm a Christian isn't because Christians act well all the time, but because I encountered something very real and who Jesus was.

I was raising Earth, Christianist, and I also encountered something very real and what evolution is unfortunately for some people who are listening here. But that's okay. I'm

not trying to convince you that it's true.

I think people are threatened by evolution because they know already that it's a very strong idea. If it was really a myth, it would have been put to rest a long time ago. There wouldn't be so many Christians that saw legitimacy to it.

But I'm going to talk to you really about the end of my story where I moved from really being fearful of engaging with evolutionary science, to not really knowing what to do with it, really having to find courage to engage with it, to really starting to make sense of everything together. And it really came down to understanding how the story I learned in scripture matched, or I mean could actually be understood as a better way to understand it. Alongside the story I was learning in science class.

So this is a story of Adam and Eve and human origins. And then this is a story we have of a progression of forms from common ancestors of the great apes to bring us us. Now some people really dismiss the importance of this by just saying, well it's just in the past who really cares what you think, or by dismissing one or the other side of it.

I think the reality is that the reason why people care about this topic is because it does matter. It tells us something about who we are and where we came from. And so we do want to know about what happened.

And I think getting some of the story right here is important. The problem is how do we deal with it when we come with two totally different stories. And I was like go forward.

I think some of the people listening are going to think the left half of the story is a myth. That's okay. I'm not trying to convince you it's real right now.

You can hear that as a myth and let's go forward. Now other people here are going to really think that the right half of this slide is a myth. That's okay too.

Don't worry about it. I'm not trying to convince you. I think what we're going to try and do and see if there's a way we can imagine a reality.

Maybe it's science fiction or theological fiction. You don't have to agree that it actually happened. But is there a way to imagine how both these could be true at the same time and the same physical reality? And that's really what this book is that I wrote.

It's called the genealogical atom and Eve. I think the link should be there in the chat. And I found out that actually there isn't as much conflict as people thought.

In fact, maybe there's not any conflict at all. So let me explain to you a little bit more what I mean. When you talk about atom and Eve I mean that they were created without parents less than 10,000 years ago and they're ancestors of everyone.

By evolution, you can drop the term if you really don't like the term evolution. I could

have just crossed that out and just talked about common ancestry with the great apes. This is an important point because there are Christians that will attack evolution by pointing things like the Cambrian explosion and things like that.

Or intelligent design. That's all just arguing with the margins because even Michael Beahy, who's a guy who's well known and intelligent design, a friend of mine, he actually agrees that the evidence for common ancestors with the great apes is really, really strong. And that's all I'm really talking about here.

And there's strong evidence for it and that's where I think the theologically challenging piece is. And then two, that our species arises as a population, not a single couple. Now most people on both sides of the conversation for the last hundred and sixty years thought that these two panels can't be right at the same time.

That it's either this was true or this was true and you have to modify something here or there. But really, the book, the book couldn't be true at the same time. And what I found out actually is that because of some pretty fundamental misunderstandings that in fact, they really could be true at the same time.

In fact, Adam Neve could be ancestors of everyone, created less than ten thousand years ago, ancestors of us all, and at the same time we share common ancestors with the grapes and arises the population out as a single couple. So how does that work? Well, let me show you. Part of it has to do with how we read scripture and I'm happy to take questions on this from you students.

I'm not going to get to the details here, but point out that the way how the story of Genesis is told is it talks about Adam and Eve, which you can imagine right here at the tip of this shape here, spreading out across the globe until it becomes everyone. And then, you know, in Acts and Romans it really seems like it's teaching that we all descend from Adam and Eve. But the important thing is that there's a question mark if you look at the Genesis tradition.

Whenever people read Genesis, they were always uncertain and unclear if what was outside the garden, and they wondered if there were people out there. Now, one way to understand this, the way I was taught to understand it, not from scripture, but by people, was that the question mark should be just filled in with emptiness, that there's nothing out there. Now, that's one way to read the story, but it's certainly not the only way.

The other way to read it, which I left out, is that maybe there is people outside, and those people came into the world by an evolutionary process that God created them by process of common descent. So it's still creation, but it's by a different process. And they interbred with Adam and Eve, so in that way we descend from both Adam and Eve and the people outside the garden.

So in that way, Genesis would be really telling us the story of Adam and Eve, and how they fell, and how everyone else really joined into that lineage. You see them in the peripheral vision in a couple places of Genesis. And science is just telling us the story of the people outside the garden.

There's some really good scientific reasons why we don't expect to see Adam and Eve in the genetic evidence. We just don't see them, so they're invisible, not because God intended it that way, or because he's hiding them, but the evidence just got erased over time. And so then the same physical reality, maybe there really was Adam and Eve, especially created as recently as even just 6,000 years ago, or maybe more ancient.

And then when they fell, the rest of the people got it created fell into their lineage too. And then with the rise of civilization, that's really how we got to be who we are, and that's where we came from. Really, both these two lineages, both these two stories at the same time.

So that's a crazy idea. There's a lot of questions you might have about that, and it's been fun talking to theologians and scientists about it. One of the really interesting things about this that might surprise you is that my book when I was published, it was actually endorsed by atheist scientists and secular scientists.

Pam, you know Alan Templeton, right? Yes. He's like a serious scientist, right? Yes, he is. He endorsed my book.

And this was really surprising for a lot of Christians. I think the reason why is that they've been taught, or I've been taught, that scientists are really anti-religious. They're anti-Christian.

Now it's true many scientists don't believe in God. I do. I found Jesus.

And you know, who knows? Maybe Pam will someday too. But here's the thing. Even if you don't believe God is real, it doesn't mean you're anti-religious.

And it turns out that most scientists have really high integrity. When Alan Templeton read my book, also Nathan Lance is an atheist biologist too, who read the book. He looked at it, and he saw that it was totally unassailable, that it was good science.

That was going to help make science that they really cared about, better understood, and parts of the church that they had a hard time reaching. And so they endorsed it, because they saw it was good science doing good. And so we found a common story.

Now of course, when they read it, they see Adam and Eve is a man. And maybe as you read this, you're thinking evolution is a myth. But you know, we can still answer the same stories and disagree about which parts are myths, right? So that's what I wanted to share with you.

That's how I've been exploring how to find a common story together. As I'm listening to both of you, one of the things I thought about is that, and I teach a lot of political theory in law, and when we talk about myths, it doesn't necessarily mean falsehood. It means a founding story, right? On which things are, on which understandings and worldviews are based.

So the question I have is the importance of these founding stories, talking to each other. So outside of the scientist of faith, or the person of faith, who's interested in the findings of science. Are there reasons that science and its practitioners should be concerned about discussions of human origins that are happening in faith communities? Josh, you referenced the impact that religious interpretation or mystery, as you call it in your book, could have on scientific inquiry.

And Pam, I think you're a little less confident of religious, religious interpretations impact on science. So is this a bigger issue? And I don't mean to diminish this, than an effort to bring fragmented faith communities together, or helping believers who feel torn between the demands of their faith communities and their beliefs in the scientific community. In other words, should science and faith be in communication with one another, or are they just merely different ways of knowing? Josh, do you want to start, or do you want me to start? Maybe we'll go back and forth a little bit.

I'll just say briefly, there's a lot of reasons why, if you're not a Christian, you should care about how faith communities talk about human origins. I think the fundamental problem we face right now is scientists is building trust with the public. We spend a great deal of time learning and understanding how the world works, but it doesn't really matter if we're right, if we're not trusted.

And if you want to build trust with parts of the community that don't trust us, you have to listen and learn and pay attention. I think that's probably one of the most important reasons why it's important to care about that. But beyond that, even if you're not a Christian, even if you're not religious, there is a grand conversation about what it means to be human.

That's been going on for thousands of years, and it includes philosophers. It includes theologians, it includes these myths from different cultures, not just Christian, but also other cultures. For goodness' sakes, why wouldn't you want to be part of that grand conversation? And bringing science into dialogue with that, it seems like there's something really broken if we're not interested in participating in that conversation.

And you don't have to be a Christian to want to do that. I mean, give me a break. That's what we should be doing.

Well, and unfortunately, I think scientists have had a tradition of we don't want to go there. We don't want to talk to creationists because we know more. And scientists have

also done a pretty poor job, I think.

I think we're getting better at communicating and being able to talk and explain the research that we do to the general public. I think we have either intentionally or unintentionally made a lot of the information about human evolution unavailable to the general public. I think one of the concerns that I have about the question, Michelle, that you asked about.

Basically, are there reasons to be concerned about discussions about human origins that are happening in faith communities is. I get concerned when I think that faith community just closes down and doesn't want to hear anything and Josh, you basically talked about that in your introduction. I think that that becomes very problematic.

I've seen that with my own students. I teach biological anthropology every fall. We go through evolution.

We cover human evolution. And I have students who will come to me and say I was brought up as a Christian fundamentalist. I am a creationist.

And right now I'm sitting on the fence and I don't know what to do. And as much as that's a struggle for the student, I think that's a good thing because I think then they're considering different ways of knowing about the world in which we live. I do get concerned when people jump to conclusions about what they think evolution is.

You know, we have all heard people say, you can't tell me I evolved from a chimpanzee. And of course my path answer is, of course, I would never say that no evolutionists would ever say that. But that I think is a good illustration of the misconceptions and misunderstandings that people have about evolution in general.

Yeah, I think this gets to the issue. I think what the core of the problem is is trust. They think that we were taught.

I was taught. And people are still taught that evolution is just a lie. That's designed to replace the truth.

And all of those evolutionists out there are out to get you. And it's just not actually true. I think there are some anti-religious scientists out there that are trying to use evolution as a wedge.

But the big fly in alignment for them, the big difficult thing for them to explain is all the Christians like me that are... I'm not even like a liberal Christian. I mean, I'm from the LaSanne Covenant. I'm fairly conservative in my beliefs.

And there just isn't actually a conflict when you understand it too. I think there's a couple things going on for students that I had to work through. And if you're struggling through

this conversation too, there's two things that really helped me.

One was understanding what the foundation for confident faith in science could be. And what I learned from Young Earth's creationism is that the foundation of a confident faith is creation science. And I just want to tell you that you can try to put your foundation there.

You're just going to feel very, very insecure because it's not a very strong foundation. Would you agree with me on that thing? Yeah. I think if there's any reason to be a Christian, it's because of what God did to reveal himself through history by raising Jesus from the dead.

I mean, that's how I know that God exists. He's good and wants to be known. That's only reason why I care about Genesis in the first place.

Now, Pam will disagree with me on that. And that's okay. But what I do know is that there's really nothing in evolution, whether it's true or false, that really threatens Jesus.

I'm not really concerned if that's where my foundation is. That's the first thing. The second thing that I would really want to point to is, Proverbs 4-6, it says, "First seek understanding." You probably don't know what evolution is if you're fearful of it.

And you may not even know what Genesis says. You might just know more what people have told you Genesis says. So what has helped me more than anything else is especially look and understand.

You don't have to agree with something to understand it. I started to understand evolution long before I agreed with it. And I also found out as I looked at Genesis more closely, is that it didn't say what many of the adults around me told me it said.

It just didn't have those words in it. Those were interpretations. They were trying to assert man's word into God's word.

And I found out that actually the problem isn't what God's word. Even if you read it really literally. The problem is really with people who are men trying to, or maybe women sometimes, but men often.

Trying to pass their word off their interpretation off his God's word. And that's actually not just a problem with science. That's a problem in our faith.

And when I start to see that because I understood scripture for myself, well you know that really started to release a lot of the pressure. I make the whole situation far more comfortable. Well good points and certainly the students I've had have always been very grateful that in the classes that I've had with them that we have open conversations.

And often they talk about being in a different science based class where even the

mention of their beliefs causes the professor who's teaching the class to kind of be dismissive. And I don't think that's appropriate. I think one of the other things that's important is that people don't necessarily understand the basic nature of science that it is self correcting.

I often tell students, look, I accept the evidence for evolution and the evolution of humans. Do I believe in evolution I'm very careful when I address a question about that because I don't consider it a belief. I consider it that I accept the data that has accumulated to support the theory of evolution, which of course means that it's a unifying explanation for lots of facts that we have observed over time.

But one of the things that I think is really interesting is that people, you know, I will then say so let me finish my first thought I will tell students look, we could have aliens we could have an alien invasion tomorrow. Aliens could land on earth and declare that human beings were a grand experiment. What would I have to do.

Why would have to incorporate this new data into my understanding. And if that meant that I had to throw much of my understanding of evolution out the window, that is what I would need to do. And I think people don't understand the self correcting nature of science if something is not falsifiable.

It doesn't lend itself to scientific inquiry. So in having this discussion and Michelle alluded to this, they aren't very different ways of knowing. I think they can interdigitate they certainly as Stephen Jay Gould said they bump up against each other constantly.

And I think that we have to be open to explore the way that we have different viewpoints and how you might be able to put them together I think if you are a, if you interpret the Bible literally, that is certainly more of a challenge for you. And then if you are like a theistic evolutionist, it's easier than to put the realms together. Well, my book actually shows how literal interpretation of Genesis can actually be consistent with evolution.

Right, I know. So I was a really hard point, but maybe not so much anymore which I think is exciting. I think it's a good thoughts, Pam though I'm going to appreciate you for sharing it.

Yeah, and you do refer to it throughout your text and I appreciate it as a thought experiment and as speculative narrative and I think it's a fascinating story. And I can, and I've told you this I can't get into the details of your genealogical modeling I really can't. I get kind of lost as I'm reading through it and I kind of went through the book again before this forum.

That's very kind of you things. So I mean there are things Josh that when I read your book I find it difficult to incorporate it into kind of scientific and queer inquiry as I know what to think. Yeah, so clearly when we talk about, for example, the de novo Christian of

Adam and Eve.

And that's something that won't be very hard to make sense of in science. Right, we can. And so I talk about how that that actually we don't expect to see any evidence.

And so I think especially for a scientist that haven't had a lot of depth and like philosophy of science, but I mean frankly it's just it's just a very different way of thinking. And so I think that's why we trust scripture and what we think it says and. And I think that that's okay because I'm not actually trying to say that every single fact can be found by science.

But I don't think you think that either. Like for example I'm pretty sure, Pam, that you think that racism is wrong. Or it's the experiment that tells us that racism is morally wrong.

I don't think that there is one. And I think that's a pretty important thing to know. So I would suggest that you probably know that and you.

And you know that by means other than science and that that's okay. And I just think that that's kind of how it works like science gives us insight into the world. But it's kind of one of the blind men holding the elephant.

There's other ways to take hold of reality too that are important. And the only way we can really understand what we're dealing with is that we start to try and understand science alongside other things. That sounds like a crazy possibility or what do you think? No, it doesn't sound like a crazy possibility.

I think the conversation is fascinating one. I just think that they are very different ways of knowing. And I don't expect that either one would necessarily replace the other.

I don't think you agree with you there either. You know. But when we're talking about.

So to go back to your, your mention of racism, I think there's been quite a few studies done where we have tested to see if racism plays a role in how people are treated. Yes, it has. So something like that does lend itself to scientific investigation.

The de novo creation of Adam and Eve does not. I just, I can't get interesting though. What's interesting about this no Pam is until my book came out.

For a hundred six years people thought that evolution meant that Adam and Eve weren't to know what created. And it's a pretty substantial change to have you, a scientist saying well I guess we don't know from science. Do you see that shift? Isn't that kind of cool? Yeah, that is a shift.

I will accept what I don't know. I mean, I certainly will accept that there are things that I can't, that I just don't know. That that's where faith allows people to know things in a

certain way that I think is hugely valuable.

So it's worth talking about what faith is. I mean we're probably derailing our poor moderator here, but we have scientists and we talk about faith and how you were talking about belief. They tend to think it means like evidence free.

But that's not actually what I think Christians or at least it's not what I mean by it as a Christian. And it is different than science, but maybe not as different as maybe you would think. Think about it.

Like most of the important studies and observations are for your field. You didn't actually observe directly. You heard them through faithful reports from trustworthy people.

And what happened is that you trusted those people and to be clear there was very good reason to trust them. And it's not just about them individually. I mean they might have been horrible dishonest people in their personal lives, but we're in a scientific community that's self corrective.

Right. And so that the reports of scientists are generally speaking very trustworthy. Right.

And so, but we can't actually go directly verify every single thing for ourselves. And so a key component of faith is really just like a trust like faith like that where it's really wondering if that's a trustworthy source for based on evidence even. And then then trying to take that account because there's certain things you can only know if people will tell you.

I don't know if you're married or not or what your personal you are. Yeah. So like, you know, there's certain things that I would have never gotten married to my wife Victoria unless I heard certain things from her that I could have never found out any other way than from talking to her.

She's about to tell me that she loved me, right. And I can't get that second hand. There's no way to do an experiment.

At least don't try to do an experiment on the person you're thinking about to find that out. You just actually have to hear it. And I think that there's a lot of knowledge.

Maybe the majority of human knowledge comes when a trustworthy person tells us something. I'm going to jump in here. Go ahead, Michelle.

You different direction. Pay them, keep your point so you can jump back in with your fun talking to Pam. I feel like we could go on.

I want to get back to that issue of trust in science. Go ahead, Michelle. I'm sorry.

Maybe you can maybe you can morph this back to the. I'll try. Okay.

So I know both of you believe that the way we understand human origins has significant import for the question of how we understand and discuss both race and kind of the demand for racial equality in the 21st century. So, how is that relevant to our understanding of race and how should this interpretation impact our efforts as we move forward and maybe this does get to the idea of where those lines are with or to lack of lines between faith and science. So Pam, do you want to start this time? Sure, I can.

Right now I'm teaching a course in human variation it's a course I've taught many times and I've seen and even when I was working with that program in St. Louis. Not that science is going to solve our problems but when people understand the science behind human variation based on this concept of race. I think it allows for a more level playing field shared knowledge that we can then construct and look at how culture has framed the reality of human races biologically, we can't do it.

But culturally, we certainly do it all of the time. And I think this is where science and thinking about human origins and looking at kind of our shared ancestry looking at the findings from the human genome project. We can see that we are a united species and that we can't divide up the human humanity as it exists into different racial biological groups.

And I think that that's so important. We had a student, we were working with fluorescent middle school, which is right next to Ferguson, okay, to give you kind of an inkling as to where we are. And we had a young African American student who was a middle schooler.

And we went through this experiential lesson on the adaptive significance of light and dark skin color variation. And at the end of it. He looked up and he said, you know, the next time somebody calls me and he used the N word on the playground, I'm going to look at them and I'm going to say you know Jack about the science.

And we were like, wow, you know, this is like, this was a middle schooler. Now, when I would have adults go through this experiential learning lab on the adaptive significance of light and dark skin color. The adults had a very difficult time with it.

And that's because of lived experiences. We have grown up thinking that because of different skin colors. That means that they're different kinds of people.

You know, kind of this whole biological, um, peritoneism idea. And you certainly talk about that Josh as well in your book. So I think that in this case, having that common understanding that there is no concordance between different like continental races of people.

And biological or genetic characteristics, there'd have to be concordance in order for us to say that biologically, there are different races of human beings. I think that that

understanding that initial understanding of the science allows us to then construct much more meaningful conversations about how to address social inequalities that are based on these constructs, having to do with different kinds of people. And there's just time I'll be brief, but I think one thing, well first I agree with everything you said, Pam.

I think it's very important for us to understand that race is a origins myth. You know, as I was writing my book, I went back and studied the history in science and in theology over the last 500 years and you find out that actually race is a fairly recent idea. Oh yeah.

And it has a false theory of origins and the way how race was understood for most of the last 500 years is not really how even races tend to think about it today. We tend to have like an idea that there's like a weak biological connection. Now some people think it's stronger than others, but it's generally weak.

But if you go to just like, you know, maybe 56 years ago, a majority of scientists thought it was a strong biological determinism. And that arose not out of scientific study, but very strong presuppositions that arose like with colonialism and like the discovery of the new world. And it's really important to realize that there was racism in theology and in the church with Christians.

And there was people trying to justify it with scripture with the story of hams curse can, can's curse all of this sort of stuff there and know like the term we get for Caucasian arises from the caucus away mountains where people thought knows that they could land it and they thought that Caucasians is centered from Noah and everyone else didn't. So we had rose in the church, but it also rose in science. So you'll see like scientific racism was horrific, like genuine.

And we're not talking about stuff that's the ancient history. And so, you know, I think what's so remarkable to me is I started looking at this history is finding out how little I heard about it. The only times I heard racism talked about was from creationists complaining that evolution was racist.

And from scientists complaining that creationists were racist. And you know, that's, that's pretty appalling when you get right down to it. The fact of the matter is, is that, you know, if racism is a sin, we're all sinners.

And I think that there's this reality that, that, you know, we try to forget those difficult things about the past, but if we don't remember them, we're really, we're really misting out on our reality of what's got things to be the way they are now. And it'll be very hard to understand how to undo it. So we're going to move now to the audience questions that have been submitted to Lido.

Sorry. Time is going fast. Wow.

So here's one in our post logic polarized politicized culture. What are some of the ways

to engage doubters, both the doubters of science and the doubters of religion. How fun conversations where you try to understand one another and try not to be understood.

Like, you know, it's funny. I think the way how most people try to engage people is by trying to persuade. But there's something profoundly counterintuitive about persuasion.

If someone feels like you're trying to persuade them, you're very unlikely to persuade them. And if you really want to persuade them, you're going to try to. So, but it ends up actually undermining your ability to do it.

However, if you actually genuinely enter a conversation, just trying to pursue understanding like Proverbs talks about and just say, I want to understand you. I want to understand why and what you believe and how. And I want you to understand me.

And I'm not trying to convince you. I just want to understand. It turns out that that disarms people, it gets them out of the fight and flight response.

And ironically, it makes it more likely that people are going to be persuaded. And so it's just not what we do. We're trying to persuade people.

So that's like the weird, the catch 22. I think that we should just try to engage one another to understand one another. And I think we'll find that we have far more common ground than we thought.

And I think that is really honestly the way forward in a divided world. What do you think, then? I would agree with you, Josh. And I think this forum is a good example.

People want people want to be heard. So the first step is you have to listen. Okay, you have to acknowledge somebody's point of view.

You might not agree with it. I don't agree with some of the things that Josh is saying. He doesn't agree with some of the things that I'm saying.

That's perfectly fine. You know, that's, we can still have a really fascinating conversation, which I hope I'm not enjoying this much more than anybody else. Because I'm having fun with this.

I'm learning from Josh. I think it's so important that we have these open conversations and respect that people have different points of view. I get concerned when people aren't willing to listen.

And I've had that experience to, you know, dealing with some very, very creationist individuals who just don't, they don't want to hear. They don't want to know. And they don't open themselves up to the conversation.

And I deal with people like this quite a bit for better for worse, as I become more public

about my faith and where I stand on evolution. I get a lot of unlistening people from both sides. But in the end, I think whether we like it or not, we're going to have to live in the same society.

I mean, we're connected to each other because of that, whether we want it or not. So, in the end, you know, I actually have a lot more hope for your generation, to be honest. Most of the people I've difficult with are older than me.

They're difficult to deal with are older than me. And it's not because I'm the young one. It's just because they're very, they're very different.

They have different priorities, I would say, than my generation or probably your generation. I think that there's an opportunity for you guys to choose a better way. And, you know, whether or not those older generations come along, I don't know if it's as important about what type of world do you guys want to claim? Do you want to claim a world where we can actually be where we can be in a common society together pursuing common goods, even though we disagree on important things.

Or do you want more of the same? And I just have found very few, if any, people your age don't want more of the same. So I have some hope. There's been interesting studies done about myths.

And I think that if you have a myth in your head, it's actually harder to dissuade a person from believing in that myth than it is a fact. So I think the older generations, you know, I often think of my father who passed away at 93. There was no way under the sun.

I mean, he was a very intelligent man. There was no way on earth. And I would never agree to the statement that biological racist don't exist, because he had lived a life being told that they did it.

So I think that that's, you know, to your point, Josh, I, you know, what I see with the kids that Michelle teaches and I teach and that you interact with. And I think that's a very important thing. And I think that's a very important thing.

I think that's a very important thing. I think that's a very important thing. I think that's a very important thing.

I think that's a very important thing. I think that's a very important thing. I think that's something quickly, right, or no, I mean, they're very specific.

And so, but there are questions you directly answer in great detail in the text. But I want to go with a larger question and then if we have time, we can go after the specific questions asked to either one of you. It was, it was mentioned that a fundamental problem right now is the public distrust of some ants.

What can help? But we're seeing that right now with vaccinations. And Josh, you mentioned that earlier, you know, earlier on in our conversation. Again, I think communication, I think people being willing to listen.

Certainly our current situation with the COVID vaccinations, we can go back to how historically in this country. African Americans, Native Americans have been mistreated by biomedical researchers. And there's a history of mistrust that has been built over generations.

So I think just having to be very open and somewhat persistent about trying to communicate. You know, like Josh said, you can't, you can't debate, you can't oppose somebody. That's not the way to persuade somebody.

So I think one thing. Well, first of all, I'll tell you, I mean, I'm a scientist and I think that I'm speaking as a scientist when I say this and if you're a scientist here, or if you're planning to be one, I think what I'm going to say is important because I'm speaking to you. I think we have not done a good job as scientists engaging in a public.

Someone else asked a question about, you know, when Richard Dawkins actually does stuff, does that actually hurt? Yeah, absolutely does. In fact, most scientists think that he's not the greatest representative of evolution to the public because of that. But very few of us reward or risk or take the time and pay the cost of actually engaging the public.

And I think that that's a mistake on a lot of levels. I think that, you know, if you're going to be a scientist, you're going to be relying on public funds. I think we need to start seeing ourselves as servants of a public and realizing that part of our job when we kind of take this profession on as a calling as a location, where we're going to be competing for government funds to fund our research.

I think we need to start acting as if it's a true. It's like our job is to be ambassadors to the public. Not advocating for our personal beliefs, but really trying to serve the public.

I think that that ethic has been lost. The other thing too that I think scientists have forgotten about is that there's actually a great deal of science on the right ways to engage the public. And the general mistake that scientists make is they take an information deficit or acknowledge deficit approach where they try and come as an expert telling everyone how it works.

But that just actually undermines trust. What we've seen over and over again and study after study is that a trust based approach works better. And trust grows in dialogue where we are able to humbly enter conversations and hear what other people found in the world and talk to them and engage with them, answer questions, take those questions seriously and also tell them about what we're seeing in the world too.

And that's what the evidence just really shows. And so if we care about advancing science and if we take that up forward as one of the things we care about, we will be doing it more often and we'll be doing it better. Okay, Josh here's here's a question specifically about one of the arguments in your book.

And then we've got another question after that's kind of a bigger question again that would apply for both of you. And then you were understanding with the evolutionary derived humans be considered created in the image of God. And I know you spin chapters on this.

Yeah, so it's interesting. I get that question all the time but one of the things that's most interesting about that question is that everyone really seems to care about the image of God. I'll tell you even atheist do because the Martin Luther King right so also these kind of in the.

And so I'm not sure if you're interested in the image of God or that we're all swimming in, but most people don't even know how what the image of God actually is. So we know it's important, but what is it? And then we don't know. But then here's the thing that really surprised me.

I started talking to theologians and I found out that they couldn't agree with one another on what the image of God is. I think it's fairly important as we kind of enter that conversation. Like I said, I wrote a lot quite a bit about it as kind of like a, you know, kind of Alice going down the rabbit hole with the theologians trying to make sense of it.

But I think that depending on how you understand what the image of God is, how you read the relationship between Genesis 1 and Genesis 2, maybe those people have to have the garden that God created another way, we're in the image of God. I think that's what makes most sense to me. Now some people would disagree with that, but I don't think essentially a problem if they weren't either as long as we agree that they were, you know, fully human and had human worth and dignity.

And as long as that's there, I just don't see what the problem would be, but I think what makes the most sense to me is that they were in the image of God. I think this is an interesting question because I remember when we taught this, and the question is how would each of you go about disproving your own beliefs. And one of the things I remember, Pam, when we taught this course is when we were talking about the nature of research and science that when you publish and you write, you do it with the understanding that at some point people will find you wrong.

You've done a good job really thinking this through, you want that because it shows your ideas are being engaged and considered and how shocked our students were at that concept of putting work out there with the hope. People will challenge and disagree with you and find better ways of doing it. So could you talk about this idea of how, in the way

you both process the world you're anticipating and thinking about how would you disprove your own beliefs.

Wow. Well, yikes. I don't really know how to address that other than having the alien invasion happening.

I honestly don't know. I think what you started with Michelle was the self correcting nature of science. I mean, I have faith in that, in that is more evidence amounts.

We can use that data we can use that evidence to fine tune conclusions that we've come to. So I think there would have to be evidence I'd have to see data we'd have to see probably something supernatural. In, in a respect for me to say that I could not then accept evolution.

I think the more likely place that you might well look, I didn't know about it until it looked but there's actually evidence about the resurrection I'd be really curious to see how that actually adjusted how you saw the world. Yeah, I mean I'm not going to put you in the spot. But honestly that's actually where I think there's more likely because there is actually a lot of evidence and most scientists don't know about it but that's beside beside that point for me.

I did change my views I was raising earth creationists I really believed it and then I was really drawn to, you know, intelligent design and I really believed it and. I think there's this aspect that I came to deeply appreciate about scientists I think that were taught to voluntarily give ground when we're on. Not to do it when we're forced to but just voluntarily give ground and I noticed that that wasn't happening among creationists and it wasn't happening among ideas.

They didn't usually acknowledge when they had something wrong and even it was really clear they would just keep on saying it and that was really the funneling for me but then when I saw scientists. Well the scientists in mainstream science I just saw this different pattern and I came to very deeply respect that and really even before I was like fully trained as a scientist. We think they're careful with the man you know when I came to my book.

I made mistakes in my book there's actually some scientific errors in it and I actually knew I was going to make mistakes in it because everyone makes mistakes when you do something that's difficult. So I actually started and planned to actually have an air crash from policy for the book and to have an erratum and I committed to publicly correct any areas I made. So if you go to my website at people.science.org you'll see a few articles there in a very long erratum it's about five pages long very very small print.

Most of it's typos but some of it is actually substantive scientific issues that I got wrong and I wanted to be in that place where I was thinking to people who corrected me. I was

thinking to volunteer really giving wrong I mean you know giving ground to the people when I was wrong and I think that's the best of science and it's of course deeply consistent with my Christian faith I have nothing to cling to I'm not defending anything. I encountered something that's greater than myself and you know and I followed Jesus because he's greater than anything I found in science I don't have to defend him.

And so it just kind of gives me like this freedom even when it comes to matters of quote unquote faith. I don't I don't have to take that defensive posture that that kind of like you know I'm out willing to take that more open handed thing of like you know this is what I've seen and this is what makes sense and maybe I'm wrong on some on some details or even some big things let's actually sort it out together. I think that the question Pam directly towards you.

You mentioned the human genome project when you consider Francis Collins and his theistic perspective is the isn't puzzling to you as a with him being a major scientist but that surprised you to see prominent scientists who professing that. No, because I think that there are ways to put faith and science together. And the yes, theistic evolutionists do that.

And he is one so that doesn't surprise me I actually applaud their ability to find some degree of common ground. And I know I'm not surprised by that. I think I'm more surprised by people who are at the opposite ends of the spectrum and there's a very large spectrum.

That's the other thing I don't think people realize you're not just a creationist or an evolutionist. And I don't think Josh you have given that impression at all. There's a whole continuum of positions that one can take between either of those ends of the spectrum.

And then Josh there's another question. Someone would like to hear your thoughts on the greater meaning of the creation story. For instance, send bringing death into the world versus death bringing sin.

Those kinds of larger questions. Oh yeah I mean you'll find that I have, you know, very orthodox view of that that's probably closer to a literal reading than most young earth and creationists readings. So, when I read Genesis it's very clear it's not talking about.

It's not really spending much time talking about the people outside the garden so it's talking about Adam and Eve and their descendants. They're in the garden Adam and Eve free of death free physical death I'm talking about. And then in the fall they're expelled from the garden they don't have access to the tree of life so then death comes to their world.

If they hadn't sinned we would all still be in the garden. We wouldn't be facing death. And so it's literally what Roman says Romans 5 is 12 through 14 that death came into

Adam's world because he sinned.

And so I don't actually, I mean there doesn't seem to be any conflict there. Now the question now becomes what about death outside the garden then but actually if you look at Genesis 3 it's very clear that the way how death comes to Adam and Eve is because they're expelled from the garden. The garden had clear borders he says that they actually put an angel there to prevent them from entering back in.

So I just say the clear literal teaching of Genesis is that the garden is in a narrow space. And that Adam and Eve if they're not in the garden they're not going to be immortal. They're only immortal if they're in the garden with access to the tree of life and then, and that means that there was death outside the garden that's what Genesis teaches.

So we've titled this discussion human origins evolution and what's at stake. We know that this question can be a very difficult one and often a visceral one for those both in science and in faith communities. So I guess I'd like to hear you both talk about what exactly is at stake for both communities that have made it so hard for us to come to the ground.

Well, in one sense I'd say that there's a lot less at stake than we thought. So I don't think, you know, if you think a literal reading of Genesis is important. That's not at stake here.

You know if you if you think that you know being a faithful Christian is at stake here that's just not true you can be a faithful follower of Jesus here. That's not what's at stake. If you, you know, those are just not the things that are at stake.

What I think is at stake is that, you know, I think God spoke to us through Scripture but he also spoke to us through nature too. And I think we're missing out on a really grand and beautiful story if we don't just chill out and take the time to learn. You know, the reason why science to study evolution isn't because of creationists.

Most of them don't engage with creationists at all. The reason why they study all this stuff is because it's freaking amazing. It is like, it's like one of them.

It is a really grand story that God's telling us in nature. I mean, of course, you know, there's other things that you can't get from nature that he's telling us to. So, I mean, I still think the story of what God did through Jesus is greater than science.

But let's just not be silly here. What we see in science is pretty amazing. And you're missing out on that.

And I think, you know, you can be in the sphere full, you know, curled up position that's very defensive or at best or aggressive at worst. But that doesn't sound like fun. And frankly, people don't come to Jesus because they found out evolution is wrong.

They come to Jesus because they found out that he's good. And, you know, in the end, you know, there's just a better opportunity. I think that's what's really at stake.

We have an opportunity for a better sort of conversation, a better sort of church, a better sort of a better sort of voice in science and friendships with wonderful atheists in science, not the yes I'm sorry in science, like Pam, I mean, like don't you don't want to miss out on that she's a great person. What's at stake that's a huge question, as we all recognize. And I think for science, if we lose science, we have a lot at stake.

I think we have the future of humanity the future of our planet is at stake so science is certainly going to be important. And I think that's what's important down the road. I think that scientists do miss out.

If they dismiss the importance of faith in a person's life. So if you are a faith based person. Then I think that that provides some solace that provides you with some degree of comfort and strength.

I think scientists have to respect that. And I think many scientists do I don't think all scientists think that if somebody is faith based they're the worth, you know, they're less than. So I think it's really important again that we we be open to these communications and have these kinds of conversations.

Any last thoughts or their points you wanted to make you didn't get the chance to or ideas you wanted to raise that you get the cancer wrestle with. Well, it seems like a lot of people are asking questions about the genealogical I mean, but I think that that's great. I love your questions.

You know, if you want me to come back informally sometimes to talk to a smaller group of people who've read the book I'm willing to. But I think about right place to start is by actually catching up on some of the stuff there. I think you'll have fun with it.

You don't have to agree with evolution to read that book and I think that could be a good starting point. And I think what you'll find interesting about it is that it'll show you even if you're not sure about this evolution thing. You'll see that it doesn't actually have to be something that's necessary to oppose and it might give you a common ground place to actually talk to people who really do agree with evolution.

And maybe you're doubtful about the other side of it and that's okay too. So that's there. I mean, I really love dealing with students and so it's a privilege to be here to talk to you about this.

And honestly Pam, it's been wonderful talking to you and getting to know you. We got a chance to talk about beforehand and all. I think you're really lucky to have faculty like her here who are really wanting to respect your beliefs.

She's not trying to turn you on to atheists. That's one thing that really stuck out to me when I talked to her. She's trying to be a good host in science.

And that's a really incredible privilege. So I hope you get a chance to follow up with her as well too. Especially when you know we're done with all the COVID restrictions and all.

And I just recognize that there's something really amazing about the university. It exposes us to ideas that we wouldn't have experienced otherwise, certain types of people. And you don't want to miss out on it.

I think the biggest thing to lose is missing out on a lot of good things. 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.

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