European Scientists Network 2021

Panel Discussion: Three Views of Creation

The European Scientists Network is committed to two main purposes: (1) increasing the praise of God the Creator-Saviour through what humans study and know about His creation (Col 1:16) and (2) putting scientific findings in the context of His Word so that what we know about His creation will not obfuscate our knowledge of Him (2 Cor 10:5).

In order to achieve its purposes, the European Scientists Network highlights demarcation lines between scientific facts and their interpretation by naturalistic vs. Christian worldviews. We do not shy away from sensitive subjects like the evolution debate and ethical implications but engage in constructive, respectful discussions.

In 2021, such a discussion took place between five Christians who hold and defend different views of creation while agreeing on the pre-eminence of the Bible in all matters, including creation. The discussion took place online; it was recorded and the recording transcribed. The names of the speakers will not be disclosed, for two reasons: (1) because of the sensitivity of this topic in both secular and Christian circles and (2) so that readers of the discussion will not be prejudiced. In fact, rather than assigning the speakers to "camps", we have simply numbered them, although diligent readers will be able to find out which view each speaker holds. Some speakers prefer not to identify with any of the well-known "camps" – viz. young earth creation, old earth creation, and theistic evolution – considering these categories an oversimplification.

We pray this transcript will set the tone for discussions of this type and topic. All of the speakers have been thinking and speaking on creation for many years, so their discussion may presuppose many aspects and arguments. We still believe it will be helpful, even for Christians less familiar with the topic, to observe which aspects out of a vast field were put forward by experts.

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Panel Discussion: Three Views of Creation

M: Moderator

S1-S5: Speakers

Q: Questions from other discussion participants

M: It is a great pleasure that so many of you are able to join this panel discussion.

I really enjoy that what we do here is a future model for the church as a whole. Because we know that we don't always agree with each other and there is a lot of fighting going on in different countries, in different intensities. But it's good to see that we can accept each other as brothers and sisters, exchanging and sharing the best arguments from science and theology that support our view and are problematic for the other view, while still keeping peace and looking for the truth. I think this is really what I appreciate about this network so much.

And so, we model unity even though we don't agree on all points. And that's fine. I think that is what it means to be a Christian as well. We are one in Jesus even though there are many different dogmatic problems, scientific questions – like the coronavirus – or political questions that might cause us to be divided.

I want to encourage us to model this way of living: being true to our faith, being true to our opinion on dogmatic issues, but accepting other people as brothers and sisters even though we disagree. So thank you very much for doing that. You will see that we have speakers who support a young earth, we have speakers who support an old earth but are critical of evolution, and we have speakers who support theistic evolution or evolutional creation or guided evolution. And you will see that these are just three poles on a whole spectrum of views.

And regarding that, I would like to ask the first question to all of our speakers:

What do you think is the strongest point for the other views, based on what was presented or what you know from other sources?

This is a question that is a bit tricky, of course: what would you say is the strongest point that is in support of your opponent, of those who have a different opinion than you?

Let us start with S1: what would you say is the strongest point for old earth creationism or for theistic evolution?

S1: Ah, this is huge and it is really good for us to zoom out and see the big picture. I'm glad we are doing this. I would say that there is a fundamental issue: We all have a high respect for the Word of God and we all have respect for human authority. So we embrace science and we embrace scripture. And it seems to me that the evolutionary perspective or deep-time perspective is really strong in terms of winning highly

influential people; because of who they are, these positions are strongly bolstered because of human authority. But for myself, the difference is: for me, scripture comes first and human authority comes second. So I respect human authority, including evolutionary theorists, but when I have to choose, I will choose scripture over science.

M: Thank you S1. S2, what do you think about either theistic evolution or about young earth creationism? As far as I know, you identify as an old earth creationist.

S2: Yeah, absolutely. I would argue about the difficulty of theistic evolution based on the scientific evidence, not theological evidence. Now, look: it would make all of our lives much easier if the simple interpretation of the biblical account in Genesis was consistent with science. And the biggest argument that people who are young earth creationists have is that one view of the first few chapters of Genesis would support a young earth. That's, for me, one of the only things going for that position. I don't mean to be too tough about it. I respectfully hear what S1 says about the authority of the Word being above the authority of science. But I simply don't see any conflict with them. I have been reading a lot about Galileo lately, two books actually, and it is clear to me that the arguments we are having now could simply be put in Galileo's mouth some four hundred-odd years ago. I might have gone into my point of view here, but for me, the biggest argument point for a young earth is the simplest interpretation of the early chapters of Genesis. My problem is: it does not fit any of the facts as far as I can tell.

M: Thank you. S3, what do you think about young earth or old earth creationism?

S3: I think it is hard to evaluate its strength, so I will just say where I find it interesting, which will be biased by what I study. I find S1's various arguments about genetic entropy interesting, I just disagree with some of the key premises. Because I think that there is so much we don't understand and some of the key premises are not really well understood. I think these are kind of going in the right direction, with the potential that they could be true, so we think they are true. But they are very interesting and scientifically they are worth considering. Regarding the origin of life, I think that James Tour is right that if you need a complex cell for the origin of life then that's going to be impossible abiogenetically, it's just not clear whether you need a complex cell to start with.

M: Thank you S3. S4, what do you think about the other positions? You said you had been a young earth creationist, but you left that, and you would not use theistic evolution at your college. So what do you still think are good arguments for this position?

S4: Well, just to clarify, M, I previously was undecided between a young earth and an old earth. But now I have become convinced that the data require me to believe in an old earth. What are the strongest arguments in favour of the other two positions? I think the strongest argument in favour of a young earth position is the genealogies in Genesis. If they form an unbroken line, the question is: could you get gaps in them? Gaps of hundreds of thousands of years, that is hard to explain. So that's a strong argument for a young earth position – the strongest one, I think.

And for the theistic evolution position, which I don't agree with, I think the strongest argument is the claim that if we involve God in explaining things, that's not science. That's outside the realm of science. And I would respond to that: Well, if science doesn't have any business explaining the origin of life, the origin of the universe, if you say that's outside the realm of science, then you are excluding science from the truth. Of course, that's answering the objection. But I think that is still a forceful argument.

M: Thank you. Interesting point. S5, what do you think about the other positions?

S5: First of all, I don't love to say it in that way, but my position, I think, would be characterized as a young earth creationist. I decided on this position because of my understanding of the biblical texts. And as S1 said, this comes first: my correlation to the biblical text. But if I am discussing the age aspect with scientific data, I am struggling because I know there are data which I am unable to integrate with a closed picture of a young earth. I am open to this discussion and I respect that there are arguments. What I am looking for is what the data are saying; sometimes it is difficult to distinguish between data and the interpretation of the data. How to interpret the data – it's the mainstream of scientific discussion today. And in some aspects, it could change.

M: Thank you. Now, to get some distance on our own view – since you are not the only ones to represent a certain camp, or to be persuaded of a certain attitude:

Where do you disagree with other adherents of your own spectrum? For example, if you are a young earth creationist, what do you think other young earth creationists say that you would not subscribe to? Or the same for theistic evolutionists?

I think S3 actually mentioned yesterday in his talk that there are some theistic evolutionists with whom he would not like to be identified, as they do bad theology. I thought that was quite an interesting point; probably all of us have realized that sometimes it's not good to be thrown into the same pot with other people where you would say: "Stop! I don't argue like that." So S3, would you like to start with that question, because I picked up that thought from you?

S3: Sure. So theistic evolution is not a label that I have ever used about myself, and it is not one I would want to apply to myself. But if I am to be thrown into that category then I am going to disagree with a lot of different things, because there are a lot of different theistic evolutionists and there are a lot of crazy things. I disagree, for instance, with Denis Lamoureux, who suggests that Paul was just trying bad ancient biology when he talks about Adam. And I am also sceptical toward methodological materialism because I don't think it is necessary to be a methodological materialist. So I am open, scientifically open…

M: Can you explain that? What is that?

S3: Methodological naturalism is the claim that science should stick purely to natural methods or natural processes. I don't think that is being well argued for. It is possible that science could deal with things which are not purely natural; it actually becomes hard to define what counts as natural, because natural tends to be defined in terms of science. So it becomes circular.

M: Thank you. Yeah, that's an interesting point. S5, what do you think about that? Where do you disagree with other adherents?

S5: There are a lot of points where I disagree with other young-earth creationists because, I think, a few who I know are talking about science but are not really open to all the data. They select data and have only very small interpretations, and this I really don't like. My position is that I have to handle open positions and unanswered questions. This is the position I have and some of my friends, some of my brothers, are not able to handle this, and I don't like this.

M: Thank you. S4, what do you think about that?

S4: The old earth colleagues of mine, people who hold to an old earth in science and theology, some of them would not hold to my argument that nature was subjected to futility and brought forth thorns and thistles, that there was a transformation of nature after the sin of Adam. Some would disagree with that and think that the world as it is now is the way it was created. And among those, some would look for a renewed earth which is more like the garden of Eden, with no thorns and thistles, no poisonous snakes, no mosquitos that bite and bees that sting. In the new heavens and new earth and others, I don't know. They may be ambivalent about that question. I told you one area in which old earth creationists have some differences.

M: So, a real fall that was disruptive for natural processes, yes?

S4: Yes, and meaning more hassle to human beings.

M: Thank you. S2, what do you think about that?

S2: I would identify with the design movement. I hesitate to use the words intelligent design movement because it has some bad connotations. But the two things I have difficulty with in the design movement – one of them is the politics. I think people in the ID movement would admit that many mistakes were made in years gone by, particularly the Dover court case, that have damaged the design movement. But the biggest issue is: how testable is design? I know S3 has had lots of thoughts about this, but in my biochemical lab, I absolutely believe in design and I don't believe the molecules I was talking about the other day could have happened by mere chance. James Tour was talking about that. How testable is design empirically, scientifically? Many of my colleagues in the design movement say: Oh, you know, it's testable! You know, I'm torn between ID and between empirical science. And I haven't quite made my mind up yet about what it is, even if many people in the ID movement push this concept that ID can be tested. It's something which I am myself not clear about yet.

M: Thank you. Yes, a good point. And S1, what would you say about the young earth creationist movement?

S1: I think that we all experience in the face of God a call to be more humble, and sometimes the young earth creationists are too dogmatic. Basically, I think that the people I know in the young earth creation movement are trying to practice speaking the truth in love. And sometimes we struggle with that. I think that we often claim to know more than we know, and this requires more humility on our part. Right now, one of the things that S3 raised was basically Genesis taxonomy and the issue of levels of taxonomic order, and I would say we don't have an adequate explanation for that. That is an area where we need guidance from the Lord in terms of trying to work that out. We know the Lord doesn't owe us explanations, but often we have seen that he has given us answers to our concerns in prayer. And so we trust that that will come into focus, but if it doesn't, it is not the core of our – not exactly what the kinds are, is foundational for us. I think, at certain points, we are in a weak position. In cosmology, I think we are very vulnerable. So I think we should confess that.

I think that the area of genetics is very interesting because, when I decided to fully submit to scripture, I thought: Okay, my field is the stronghold of evolution. I am going to get slaughtered. And what happened was God opened doors for me. So now, I think, genetics is the strongest argument for young earth creation. So lots of humility, lots of mutual love – all that is required, as well as an acknowledgement that we don't have exactly the same views. I would just like to finish by saying that, in my own personal view, scripture is what gives us unity. I see theologians and Christians and pastors

going every which way, and the only way we can be united is not just to tolerate each other, but to seek to use scripture as our foundation. And I think that is the best hope for unity.

M: Thank you, all of you, for your honesty. Now it is up to you, the speakers, whether you have a question to one of the other speakers that you would love to raise. Is anyone very keen?

Who has a question for another speaker?

S2: Actually, I would like to ask S1 a question, because S1 just made a comment which was: 'When I decided to fully submit to the Word' – I think he means the Holy Scripture. Would it not be fair to say, S1, that it was when you decided to fully commit to your interpretation of the Word? Because I think this is the big issue, isn't it? You have a certain interpretation of those initial chapters of Genesis, other people have a different interpretation. When you say "When I decided to fully submit", are you implying that I do not fully submit?

I don't want to be – sorry, forgive me for the way I asked the question.

S1: No, no, I think that M wants us to engage in this way. That is good.

Basically, I believe the Bible was written by common man and that, when most people – apart from theologians and priests and pastors – have picked up the Bible and read it, they read Genesis as history, and it becomes very simple for them. I used to treat it as an intellectual, and now I feel like I should be more like a first-century Christian – just read scripture and believe it. The Genesis account is transparent and we take it at face value. Throw away all your intellectualism and all your science for a minute and just read it as if this is something written for simple people like me, and so I embrace it in a simple way. But I use it also as a foundation as I read the rest of scripture. I go, okay, here is the beginning, I see there the revelation, I see it is a mirror image of the beginning with all this continuity. So for me, I can't just discharge Genesis or say it is too complex or only theologians understand it. I think I can read it and believe it.

S2: Can I just… I am not sure if you actually answered my question. Do you believe that I fully submit to scripture, as an old earth design person? Because what you say implies that those who don't see it from your view don't submit. And I'll stop there.

S1: I think my main job is to be faithful and not to criticize or critique other people. So I am not thinking of you, S2, in a negative way, I am thinking about me and God and what I submit to. I don't really… S4, you are awesome, but I don't look to theologians, because they are all over the map and so are pastors. Scripture is scripture in our hands. We can read those verses, and they seem transparent. They are written for an ordinary person to read and understand. That is my conviction. That's what I committed to.

S2: Okay, thank you S1.

M: Yes, I think submission is an attitude that is hard to judge from the outside, isn't it? It is important to see that. We should try to interpret scripture on the basis of scripture as we are allowed to understand it from God. And some people might still arrive at different positions, as we see here, because I would bet that all of us who are here really submit to scripture. We want to submit to scripture but still arrive at different positions.

Okay, the next one is S3.

S3: The question is for S1. I guess my first comment is that, at least from my perspective, it would be helpful if someone is coming from the presuppositional approach. So they shouldn't say that the evidence proves a particular conclusion when the evidence in another context is admitted to be uncertain and improbable. Given in some context that would be admitted, but in another context, it shouldn't be said that evolution is disproved or evolution is a lie or that kind of thing. That was just my first comment.

The question is a technical one regarding the mitochondrial most recent common ancestor of humans. You suggested a method to infer this common ancestor, and I wondered if you had applied that to animals as well. Presumably exactly the same method could be applied, and if you have done that, what were the results? And in using this method, would you accept the conclusion of people like Answers In Genesis that the kind is something like the family level, in which case you should use the mitochondrial diversity of the family level in order to do your calculation? I hope that makes sense as a question.

S1: Okay. There are maybe six issues, but they are good ones, so I will try to respond to them. First: in terms of taxonomy, if we look at traditional taxonomy, it was based upon visual similarity of kinds. Now, with genetics, we know that we can go deeper than that. But even when it was as simple as just phenotypic appearance of different creatures, taxonomy has been a point of tension. So when we talk about families or orders, they were generated largely by speculation, not based upon science. They simply looked at what was similar anatomically and what wasn't. I think taxonomy itself is a weak science, and so I don't necessarily believe – the latest was Wydan, where he described the different types of life. Certainly, it is difficult to figure out how a mouse-like creature and an elephant can in fact be closely related. So I have never been impressed by taxonomy and I have always realized that taxonomists argue all the time about how to trade their nested hierarchies.

Let's see if I can remember some of the other questions you asked. Can you …

S3: The main point is: Have you applied the mitochondrial most recent common ancestor to animals? Which would be more diversity of the animal kind that you refer to, which would give you a much older age.

S1: I haven't done that but other people have. A recent paper in a mainstream journal by a non-creationist showed[1] – and I am sorry I can't name it right now but I can dig it out – it said basically that there is a mitochondrial Eve for all creatures, all higher-level organisms, and that everything seems to have gone through some sort of bottleneck because using the same methodology, the dates are very recent.

S3: Like 200,000 years, right?

S1: Yes, something like that. So for me, for all of life to be that young is weak because the numbers have huge margins up there – 200,000 for all of life is astounding. So, yes, there are people doing that and the results they got blew the wrong minds and blew everyone who read the papers' minds. It's not 6,000 years, but it's not 500 million years either.

[1] Critical review of this article: https://biologos.org/articles/did-90-of-animal-species-appear-about-the-same-time-as-human-beings

M: Thank you. S4, is your question still valid, or has it been answered already by the other questions or answers?

S4: Before I ask the question, I would ask S1 if he could send that article to you, M, because I think a number of us would like to see that. The claim that all higher forms of life originated only 200,000 years ago, is significant.

M: Yes, that would be great. S1, if you could send it to me, then I will distribute it via the email list. Thank you.

S4: I have a question for S3. This is a non-scientist asking a science question. If I understand the arguments in favour of theistic evolution or neo-Darwinian evolution, or the arguments in favour of evolution in general, the scientific arguments are primarily based on the similarity of structures in living things. So, there is similarity at the cell level and there is similarity at the level of – we have ears and other creatures have ears, we have eyes and other creatures have eyes. It looks like one has descended from another. The intelligent design movement has answered that similarity of structure, similarity of appearance, similarity of function, just implies the same designer, the same creator. It doesn't imply that one has descended from another. Just as similarity of… well, I live near the final residence of Frank Lloyd Wright, an architect. You can see several different houses that have the same design features and that shows that they were all designed by the same architect, but it doesn't show that one descended from the other. So how do scientists say that similarity of design is the major reason to prove evolution when there is an alternative explanation for it? Maybe I am misunderstanding something.

S3: Yeah, that's a good question and is often raised. The similarity is based not just on structures like ears, but on detailed molecular characteristics which, as far as we can tell, can differ widely while performing the same function. It's the detailed molecular similarity which seems to have a hierarchy structure, which is well explained by common descent. In the same way, if you look at the similarities that are within human families, you can kind of tell people's children and grandchildren. There are some kinds of inherited characteristics. By analogy, you can scale that up to the larger taxonomic groups and you will see there is a hierarchy which would fit if there was common descent. And it seems unexpected, for there is no particular reason to expect that precise pattern on the hypothesis of design. So design doesn't specifically protect a nested hierarchy of similarities, whereas common descent does.

S4: You are sure that it cannot be explained by the same designer, repeating design?

S3: Anything can be explained by a designer who chooses to act in a particular way, but it would seem surprising for there to be detailed molecular sequence features to have this nested hierarchy. I gave a full talk on this yesterday and unfortunately, I can't repeat all the arguments, but there are a bunch of different arguments around non-functional sequences that also share this nested hierarchy. But regardless of whether something is functional or not, the fact that the nested hierarchy is so detailed is generally surprising; that is why intelligent design and creationists try really hard to rebut the notion that there is this nested hierarchy. Because I think it is generally seen as problematic for their view. That's why people argue so strongly against there being a true tree of life and such. I just think, when you really dig into the data, the tree of life is there. That is my perspective.

S4: So the objection, if I am hearing it correctly, is on the one hand that there are similarities of design that are non-functional, and on the other hand, the similarity of the

designs are so detailed and follow specific patterns in different parts of the first ray of living things.

S3: Yeah. I think that covers it basically.

S4: The detailed similarities again: why can't I think that those are due to a creator deciding to use the same patterns and structures because they were proved useful?

S3: The problem is that you don't see the same sequence characteristic in a mouse as in a dolphin. You see that you can arrange things that are less and less similar to a mouse, and it's kind of like a Russian doll situation, a nested hierarchy of things that are less and less similar. You don't see the same thing being reused, copied and pasted, which you do see in human technologies, where the same computer is used in a cell phone and then in something else.

S4: Then why not say: there's a creator who delights in variety of design?

S3: Ha, I think we could kind of go back and forth like this all day! And you can even argue that if you want. But I think if you really look at the details, the nested hierarchy fits naturally with common descent. This is why people like I mentioned the other day, people like Michael Behe, Michael Denton, Günter Bechly, and Siegfried Scherer, who I would say basically are the most qualified intelligent design biologists who aren't young earth creationists, all actually accept common descent. So it is not a matter of evolution versus design, it is a question of where the biological data points.

M: I think the problem is that a designer can have any intention. So God could have created everything to be very unique, without similarities, or he could create as many similarities as he wants. But the nested hierarchy just fits, like Occam's Razor would say, without any additional assumption, into the theistic evolution or the common descent paradigm.

S1: Can I jump in?

Linnaeus established the nested hierarchy when he developed the science of taxonomy. But he was before Darwin, and so from his point of view, the nested hierarchy was of God. And so it was when Darwin came in. It wasn't obvious to Linnaeus that this was evolutionary, because the evolutionary concept wasn't there yet. So even though I agree, S3, that this nested hierarchy would fit evolution, I'm not convinced that they are required.

I'd like to bring in a bit of scripture because this is huge in my small mind. 2 Thessalonians 2:9-12 says: "God is sending a powerful delusion", which is disturbing. I remember when I first read that verse I was thinking: What? God is sending a powerful delusion? Basically, it goes on to say that those who do not love the truth will believe the lie. Now, I am not saying that the scripture is saying that the lie is evolution, but those who do not love the truth, who are eager to find an alternative interpretation to scripture, are believing all those lies, including evolution. One of the people I spoke with that I respected a lot was a very ardent evolutionist, and we were talking about evolution and creation. I said: I confess, evolution is powerful. And he said: You are wise to see that. And somehow we ended up saying at the same moment: Either it is true or it is a powerful delusion. We both came to that conclusion – evolution is powerful, and either it is true or it is a powerful delusion. And I said: Right, okay, we are in agreement.

I do think that the evolutionary position is very, very strong. And it is the dominant view, especially within the intellectual community. I was bonded to that. I was an atheist for much of my life, and then I was a compromised Christian, so I was taken captive from the first time I stepped onto campus as a student. I was taken captive by the powerful, powerful claims of evolution. But as I spent the last twenty years doing nothing but considering these issues, I now feel that the evolutionary position is failing and that at this point it is largely held together by inertia.

S5: I want to make a remark. We should be careful about our terms. Because if we say "evolution is powerful", we should differentiate between evolution as a method we can watch in scientific experiments – and we have to discuss how far these mechanisms work – and, on the other hand, evolution as a worldview. This is another topic. We have to differentiate between these and not mix up these two meanings of the term evolution.

S1: One way to crack that, S5, made me describe it as: It is powerful as an ideology, not in its science.

S3: May I just make a quick comment responding to S4 again? Personally, I think it is really informative to study the history of these things[2]and study how evangelicals reacted to Darwin back in the nineteenth century, why it was that so many Christians were first persuaded of the geological facts before Darwin, and why they came to think that Darwin's theory was so persuasive. Before they had the modern evidence, the genomic evidence, a lot of evangelicals were persuaded that Darwin had a really good point that the nested hierarchies people knew about now had a persuasive explanation, because we had some kind of hint toward the mechanism of how we got this nested hierarchy. I think that the history of understanding why Christians came to believe that is useful.

S4: Exactly, that's helpful. I guess I would respond to M's comment that Occam's Razor explains more simply the nested hierarchy by an evolutionary explanation. I wonder, M, if I put together the similarities of design that are observed in nature with the biblical text, if Occam's Razor doesn't mean that the simplest explanation that does justice to both of them is an old earth creation position? Because we can't dismiss the biblical evidence as something that has to conform to modern scientific conclusions. Ninety-five percent of the people in teaching professions who hold scientific conclusions about evolution are not Christians and are not taking into account the testimony of the Bible. But we have to take into account both.

M: That is a good point. Thank you. I have four questions from the audience and then raised hands.

Q1: I just have one question, which is a biblical question. It's a verse which to me really just makes it so plain. In the New Testament, in 1 Corinthians 15, Paul says: "All flesh is not the same flesh, there is one kind of flesh of man, another of beasts and another of fishes and another of birds". Obviously, I am primarily [concerned] with the floods about S3 [with] that question, but it may well be that others in the panel have a comment. I just find that this really does reverberate with the Genesis account and shows me that we should take Genesis – and I agree with S1 here – very much at face value, because the apostle Paul does the same. So, if S3 and others are to respond, I'd be grateful.

[2] From the chat: "I read the exposition of Genesis 1-11 by John Philoponus, 6th century. The main question that was discussed by Christians then was: When did God create the angels? Not a major point of debate in our time …"

S3: In that verse, that lists three or four kinds of things, does that mean that we think there were just three creation events?

Q1: Obviously not.

S3: I would just say it is not giving us a scientific taxonomy. To give a very quick response, I think some kind of Platonism or something like it might be true. That there are distinct species and some seem like there really are – they have to understand distances or something. I'm not sure that means that there could have been an evolutionary hub where God was involved. I just think these are several questions, really. So I'm not sure what Paul means by different kinds, but he can't mean taxonomic kinds, because he is not **directly** repeating the same things that are mentioned in Genesis. There are more distinctions made in Genesis, so I don't think they can be meant literally like that.[3]

Q1: If I could just put a rejoinder to S3: however, it is certainly saying that there are distinctions. Therefore, to me, that verse makes it plain that although Paul obviously was not aware of all the knowledge that we have today about genetics, he is making a statement that there are differences, and to my mind, that is not consistent with common descent.

M: Okay, thank you. Let's go to the next question.

Q2: I have a question for S4. You said that the strongest argument in favour of young earth creationism in the Bible, for you, was the genealogies. Why not Genesis 1?

S4: Oh, that's also a strong argument, but I had to pick the one I had the most difficulty responding to. For Genesis 1, I think that it is easy to understand the word "day", Hebrew "*yom*", in terms of a period of time. I do not think that Genesis 1 intends to tell us the age of the earth. It intends to tell us the sequence of events and that God's powerful working created all different things on the earth and in the universe. So it has some weight in my mind, but it is not as forceful. It's just an evaluation of its persuasiveness in my mind. It is an individual decision.

M: Thank you. I have an emailed question from Q3. S5, you mentioned that the interpretation of science can vary over time. Can this also be true of the Bible?

S5: Our human interpretation really does. I think this is the way life goes – there are changes. But the biblical text tells us God himself will lead us by his spirit, which is in us, to understand. That doesn't necessarily mean we should all have one understanding. But I don't expect that there is evolution in the understanding of biblical texts.

S2: Can I just add to that? I think there is absolutely evolution in the understanding of biblical texts. Take the example again of the whole Galileo argument: the Catholic Church believed that the earth was the centre of the universe. And then we realized it is not, based on a scientific advance, and the Catholic Church changed its interpretation in

[3] From the chat: "Regarding Q1's question: Paul also makes distinctions between Jews and Gentiles, but we still believe that they have common descent, do not we?" From Q1: "Thank you - but the context is that Paul is specifically speaking about different physical body and a different origin of these bodies. Context is vital. 1 Cor 15 is about the body physical. So verse 39 we cannot get away from is showing that the bodies of fishes are different to beasts, to birds and to man." From S2: "1 Cor 15 is actually discussing the different resurrection body of Christ and using examples that we also see different kind of bodies in nature, see verses 42 onwards. I am not sure he had common descent in mind …" From Q1: "Paul I am sure did not have common descent in mind. Of course I agree. But as he wrote he underline dates Genesis account of different flesh for different creatures. He also was not only speaking of the resurrection of Christ but the resurrection of men and women who believe in Christ - verse 44 - through to the end.*

light of new scientific evidence. We have to be humble enough to admit that science obviously changes. We know things now we didn't know a hundred years ago. But also, understanding of the Bible changes. Things go into fashion and things go out of fashion. But there are fundamental issues where things have changed. Galileo, Catholic Church – classic example.

S3: I would also add very quickly – it seems that Martin Luther also thought very strongly that the sun was going around the earth rather than the other way around. So early Protestants had the same problem.

M: Thank you, yes. John Lennox mentions that in his book *Seven Days That Divide the World*. Let's take another question from the audience.

Q4: To me, the Bible comes first. The Bible is the revealed Word of God. And so it is really totally in agreement that our job is to trade and integrate the Bible with other sources of knowledge. My problem with science is partly in the philosophy of science, and I would like to perhaps have analysts come in on this. There are natural causes and effects and they are governed by laws that seem to exhibit the faithfulness of God over a long period of time, as far as we can tell. He maintains the systems of laws moment by moment and place by place. They are direct acts of God, the natural laws. But there are also supernatural acts that do not follow the way of laws of cause and effect. So God acts supernaturally and naturally. For me, as a person who tends to end up where Wayne does, I think that the special creation of the kinds is taught in Genesis 1 – I think there were three generalized answers to reach 'kind' – whatever that is. And that evolution actually is more robust in differentiating the kinds down through time, after they are supernaturally created. That's my own view. What does that make me in terms of a label?

S4: An old earth creationist.

Q4: Yeah, I am an old earth creationist. Evolution is realized on probabilities and randomness. There is a limitation of the human perspective on reality, not a limitation on God's perspective on reality. So, when you are trying to find truth, how can you not trace or integrate supernatural and natural? You know, if truth is the ball, do we rule out the supernatural in trying to explain it to us and in terms of the natural, and do we rule out the natural to turn the supernatural, or do we integrate them? That's my struggle.

S3: I think, one question is: What is it to God to create? And is it possible that God used some kind of media in creation, that he used other mechanisms? Because often throughout the Bible God acts through natural means. For example, Jesus says that God feeds the birds and that God …

Q4: Only he created a fully fertilized egg that he put in Mary. That was something that didn't exist and came to exist out of nothing. Some miracles reflect the creation of matter out of nothing. I don't see how that can be ruled out in understanding the truth.

S3: Oh, yes, right. I'm not saying that that should be ruled out. I'm just saying that sometimes God uses natural means in order to act and sometimes he doesn't.

Q4: That's what I just said. That every natural occurrence is a direct act of God. It says in the Bible, in two places, that he upholds the system of law. And the system of law is his regular way of going about things in the universe. It doesn't exist in itself. It exists

under his will and that's the structure upon which reality is. That's kind of the picture I'm holding in my mind, anyway.

M: Thank you. Let's take the next question.

Q5: Yes, my question is for S3. But S4 can interfere with my first clarification if I get that wrong. As far as I understand, if I believe that there is evolution most of the time, then there are certain steps where God intervenes – it sounded to me, from what S4 said, that I would be an old earth creationist if I believed that. Is that correct?

S4: Yes, I think it is the same thing that Q4 was saying. You think He created in distinct times and there can be variation after that among those separate kinds.

Q5: Okay, but I could also believe that God created the one kind first, and then there is a long period of not creating another kind, then he creates another kind, then there is another separation of time, then he creates another kind… That would be also okay?

S4: The Genesis account would allow for that.

Q5: Okay. My question then to S3 is: Would you also be happy with that? Because as far as I understand what you were saying, that would not be a view that you feel contradicted with?

S4: Ah, many nested hierarchies, each one at the end of the other created by God…

Q5: Yes. I mean, it seems to me that this old earth creationism and theistic evolution or guided evolution – it's not really cut and dry like one is here and one is there, but it is more like fluid concepts and a spectrum. And I could accept all the evidence that you presented, S3, but then still believe that there are certain interventions when a new kind is created, and then I would still see all the evidence that you presented.

S3: The question there would be: why is the new kind so similar to what was there before? And is this some biological connection or is there just a conceptual connection? I am happy with exploring all these things. I think there is a spectrum. That's one of the main points I tried to make, that there is a spectrum between old earth creation and theistic evolution. And it's not clear where to categorize some thinkers; some might like Michael Denton, who is not even really a theist, but he is classed within intelligent design. And Michael Behe is a theist, a conservative Roman Catholic, and he accepts common descent but thinks that some kind of information was put in along the way. Günter Bechly is kind of similar. So there is a spectrum – actually all the major thinkers on this topic have a slightly different view. I just think that there is evidence for connection between organisms which supports something like common descent. That was my argument. There might be arguments against that, but that's fine.

I guess my argument is we should kind of relax and explore these possibilities in science. People like 'Reasons to Believe', who are proposed as one of the main old earth creationist organisations; they are exploring these things. They are exploring a structuralist evolution. So these things are not so different.

Q5: There is a question: Why couldn't the light of a distant star have been created by God without a star being created? And then you could answer: Well, yes, that is possible, but we do not expect God to create the light of a star that never existed. So is that kind of the way your arguments work? That you say: Well, it really looks like things are connected, and thus we do not expect God to create something like this without them

really being connected. Because I think somebody said earlier: Well, God could have just created it like this. Is that your argument? Did I get it right?

S3: Some right. I think there is a stronger case. I think the case for the distant starlight is a major problem for young earth creationism. It is stronger because it is information coming in with the electromagnetic spectrum, which seems to tell a history. But there is an analogy there. We also have information in the genomes which seems to tell a history of what I would say is evolutionary development. There are some similarities there.

M: Thank you. Q6 is now the next one.

Q6: Thanks to all of you. S4, I was interested that you said you felt that the strongest argument for a young earth is the genealogies. Because to my mind, they are an argument for a young date for Adam and Eve, but not necessarily for a young earth, because the earth could have existed long before Adam and Eve. I wanted to raise that and also your view of the fall. I was interested that you think there was an actual sort of biological change after the fall, and I wanted to know all about that. And presumably, you believe in the death of animals before the fall…

S4: I do.

Q6: Out of the record. So, would you be able to explain a little bit more your view of the fall and a chronology, if you like, of where Adam and Eve might sit, and what sort of things you would expect not to see in the fossil record before the fall, but you might see after the fall? If that makes sense.

S4: Yes. I think that: "In the day you eat of it you shall surely die!" is spoken to Adam and Eve with respect to themselves, in their own deaths, not with respect to animal death. So I am perfectly content to have animal death before the fall. And that leads to rich deposit of carbon-based fuels in the earth and other substances that are useful for human beings. I think that when God said to Adam: "Because you listened to the voice of your wife and you have eaten of the fruit that I commanded: you shall not eat! Cursed is the ground because of you"; and then he says: "Thorns and thistles earth shall bring forth to you. And in the sweat of your brow, you shall eat bread all the days of your life until you return to the earth" – that is saying that the ground would become – and I agree this is the most common view throughout the history of the church – that God altered the workings of nature so that the earth was subjected to futility. It is difficult for us to subdue the earth and regain food and nourishment and sustenance from the ground. We have to fight weeds and pests and disease and hurricanes and floods and snakes and bees. And yet Isaiah and other places picture a new heavens and new earth in which the wolf shall lie down with the lamb, a child shall put his hand over the adder's den and shall not be hurt – there is not hostility to humanity in a renewed earth. It would be a garden of Eden without thorns and thistles, which I take as a representative of the hostility of the earth toward human beings.

What would we now expect to find in the fossil record? We will not expect to find human remains a million years old. But we can find animal fossils. And the age of the fossils is another argument related to the age of the earth because I don't think God would need to plant the fossils of dead animals that look as if they were a million years old when they are only a few thousand years old.

But as far as the genealogies: yes, you could have a recent Adam and Eve. And I can't remember who asked me the question about the days of Genesis 1, but Genesis 1 is a

significant argument in favour of a young earth. I understand that. I just don't think it is a necessary interpretation.

M: Thank you so much. Unfortunately, we have to stop this discussion here, at least for now. I have sent out the details for tonight's second Scientists Network night, so if you want to continue to discuss, just join that discussion.

This transcription has been edited for clarity.