

TRANSCRIPT

Rev. Todd Wilken, Host

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"Creation, Part 3: The Icons of Evolution"

Guest:

Dr. Joel Heck

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Conference Speaker at "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation," July 8-10, 2013, Concordia University Wisconsin

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WILKEN: Well, they're not just in textbooks or science books. They're kind of everywhere around us. It's become part of pop culture; it's become part of pop science to consider these icons of evolution – these pictures, these depictions, these famous experiments that are supposed to handsdown prove that evolution is the right model for understanding human origins and, really, the origins of everything. Well, how do we respond to them? Do they hold water?

Welcome back to *Issues, Etc.* We're coming to you live from the studios of Lutheran Public Radio in Collinsville, IL. I'm Todd Wilken. Thanks for tuning us in.

Dr. Joel Heck will join us here in the first half hour. We'll be doing part 3 of our 7-part series on creation. Today: those icons of evolution.

Dr. Joel Heck is a regular guest, Professor of Theology at Concordia University Texas,

author of the book *In the Beginning, God*, and he'll be one of the speakers at a conference, July 8-10 at Concordia University Wisconsin, titled "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation." Dr. Heck, welcome back.

HECK: Thank you for the welcome. It's good to be with you once again.

WILKEN: I don't know if they still put it in the kids' textbooks anymore, but it was there when I was growing up; I'm sure you as well. That depiction of ape to man, where there's kind of the primitive ape walking on his knuckles, then there's someone slightly more upright, then someone slightly more upright. Then at the other end of the spectrum you've got you and me, walking along with maybe a laptop in our hands. That's one of the biggest icons of evolution. What is it attempting to depict, and is there any evidence for it?

HECK: Well. it's described by Jonathan Wells as "the ultimate icon," because it has to do with human evolution, which was one of Darwin's objects. He says, and I quote, "My object is to show that there is no fundamental difference between man and the higher animals and their mental faculties." And we all know how powerful an image can be, a picture can be. A picture is worth a thousand words, and sometimes a whole lot more than that. So by putting some pictures together to enable people to conceive of what they're trying to drive at, then they can be a little bit more convincing as a result. The unfortunate thing for the evolutionary perspective is that there have been a lot of frauds that have been perpetrated in the name of evolution, of creatures that were supposedly "halfway houses" between apes and human beings, and have been later on exposed. And those frauds are only grudgingly admitted. And the reality is that fossils, as well as human remains - bones and the like - don't come

with dates stamped on them or tags to indicate when they existed and what their ancestors were and what their successors would look like. So those are simply guesses, and most of them are rather poor guesses at the same time.

WILKEN: So it sounds like that depiction that has this kind of unbroken stages from ape to man can't be even verified by the fossil record.

HECK: No, I don't think so. In fact, there are some powerful quotations. Sally Zuckerman is a scientific materialist and evolutionist who complains about the speculation on human origins. She says, "It is so astonishing that it is legitimate to ask whether much science is yet to be found in the field at all," talking about the science of human origins and the allegations of the evolving of an ape or an apelike creature into a human being. And she's not speaking as a Christian, or as a creationist. She's talking about evolution from an evolutionary perspective, and someone who holds to that position herself.

WILKEN: Another image that often appears in the textbooks – and it's a very powerful one, speaking kind of literally of these icons – is what's often called "Darwin's Tree of Life." What does it look like and what does it say?

HECK: Yes, Darwin's Tree of Life is one of the favorite ones. He puts that diagram in *The Origin of Species*. It's supposed to show the fossil record, reflect the fossil record and show how all the species that exist today came from a few original creatures, and to show the various levels of evolution from more primitive and smaller types of creatures to more well-developed and larger and more complex creatures down the road. The problem is that the early fossil record turns that tree of life upside down. And the reality is that the highest levels of life, advanced forms of life, appear right at the start, and this is what scientists

call the "Cambrian Explosion" that supposedly happened 600 million years ago. The fossil record shows all kinds of forms of life and advanced forms of life that, showing up right at the start with no evidence of this long, gradual process of evolution from primitive and single-celled or multi-celled creatures into the more complex creatures that show up in the earth today.

WILKEN: And haven't these two first icons that we've talked about, haven't they kind of in many ways had to undergo major revision, especially the Tree of Life, that used to depict man with ape's back closer to the trunk of the tree, and man out at the end of the branches. Haven't they modified that significantly now to kind of say, "Okay, we really can't account for chimpanzees this way, so we've got to put them in another branch."

HECK: There have been attempts to solve the problem of this Cambrian Explosion. One prominent evolutionist - I think it's Stephen J. Gould, but I'm not sure; don't hold me to that - came up with the idea of punctuated equilibrium: that there are long stages in the history of the earth. If you assume billions of years for the age of the earth, there are long phases of time where there was no change, and then all of a sudden there was a tremendous amount of changes that happened very, very rapidly. They're trying to explain the lack of evidence in the fossil record and say, "The changes just weren't recorded. We just didn't get to see them because they happened so quickly." Which is exactly the opposite of what the typical argument is: we can't see the changes because they happen so slowly. So the question is, which is it? Are the changes too fast or are they too slow for us to be able to see them? And Darwin himself admitted – and this is, again, in Origin of Species, but I also have read Philip Johnson's book, Darwin on Trial. It was a book, I believe, from 1991 that started the Intelligent Design Movement.

Darwin admitted that there would have to be huge numbers of intermediate species in the direct line between more primitive species and the more modern and complex species, in order for his theory to be true. But in fact, the fossil record didn't show it in Darwin's day, and it still doesn't show those numbers of intermediate species today. So there have been changes, most definitely in the theory.

WILKEN: Speaking of Darwin himself, are Darwin's finches also an icon of evolution?

HECK: Yes. Darwin's finches. lt's considered by some to be some of the best evidence for evolution that there is. Darwin went on his famous several-year voyage to the Galapagos Islands, and the Galapagos Islands have 13 different species of finches. And Darwin is supposed to have formulated his theory of evolution based on what he discovered with the finches. The problem is that the finches did not impress Darwin as evidence for evolution. In fact, they aren't discussed in Darwin's diary of the Beagle vovage, except for one passing reference. He did not correlate the diet of birds with beak shape, which he did later on. And some of his geographical information was wrong. It's only years later that he looked back at the finches and reinterpreted them in the light of his theory. But his theory was that the change in the size of the beaks of these different finches is a small change, and showing the bird evolving and that if you extrapolate that from other features of the bird, then you can see the entire bird evolving. But the problem is that the size of the beaks, which tended to be a little bit larger during drought – the theory was that during drought, only those birds that had larger and more powerful beaks would be able to crack the hard shells of some of the seeds that they wanted to eat. And that would allow them to get to the seed and eat the seed, and they would survive. And so the finches tended to have larger bodies and beaks after a drought. Well, the

unfortunate thing for that theory is that after – this was actually examined by some scientists, and they discovered that after the 1982-1983 El Niño that brought plentiful food, the average beak size, which had been growing to be larger prior to the El Niño, the average beak size returned to its previous size, and so there's no advance over the course of those decades after all.

WILKEN: Dr. Joel Heck is our guest. Part 3 of our 7-part series on creation today: the icons of evolution. When we come back, we'll talk about Ernst Haeckel's embryos.

[BREAK]

WILKEN: Dr. Joel Heck is our guest. We're in part 3 of our 7-part series on creation. Today: the icons of evolution.

What are Haeckel's embryos and what do they purport to show about evolution?

HECK: Yes, these are drawings that Ernst Haeckel, a German biologist, put together to try to show that the embryonic development of creatures was very similar and that all creatures are descended from a fishlike animal. The fancy claim was that ontogeny capitulates phylogeny, that our existence inside the womb repeats the evolutionary development of that particular creature. And he put together drawings of the embryo of a fish, a salamander, a tortoise, a chick, a hog, a calf, a rabbit, and a human, and he put them side-by-side in order to show how similar they were at 3 different stages in the womb.

Well, there are several problems. First of all, he began with a biased sample and he selected only those embryos that came closest to fitting his theory. Secondly, he didn't use the same stage – he used the mid-point of the development of the embryo, rather than the earliest stages. And then the reality is that he doctored the drawings. I have a picture – I think you can probably find it online if you Google it, but a friend of

mine sent me this picture of his drawings compared to actual photographs of these same creatures in the womb, and compared his drawings with the photograph of that embryo at that same stage. And he messed with the drawings so that they're not accurate. Later on, his own university sanctioned him – censured him, I should say – for misleading the public with what he offered, and consequently his research never should be used.

WILKEN: What are the peppered moths?

HECK: That's supposed to be one of the most - that's the most famous example of natural selection - that is, evolution by natural selection – that's around. Peppered moths are a certain kind of moth that can appear in either a light color or a dark color that Bernard Kettlewell, a British physician and biologist discovered. And he suggested that in parts of Great Britain where there was a lot of pollution, that when a lightcolored moth settled on a darkened tree trunk, that light-colored moth was a little bit more visible to the birds; the birds ate the light-colored moths, and the dark-colored moths were camouflaged because they were closer to the color of the tree bark. And so he thinks that's an illustration of how evolution works by way of natural selection. And you can look this up on the Internet too, and find all kinds of information about it. You can see pictures of peppered moths on tree trunks. Well, the unfortunate thing for Bernard Kettlewell is that peppered moths in the wild don't rest on tree trunks, and yet you have science textbooks that will show pictures of that happening. And the reality is that the textbook photographs have been staged, some dead moths have been pinned to the trees or glued to the trees, and in fact, some of the other data contradicts this theory because there are some heavily polluted areas of Britain, like Manchester, that should by that theory only have dark moths because the light-colored moths would have been eaten by all the

birds. But that's not the case: they've got a mix of both of them. Plus in the rural part of east Anglia, northeast of London, where you've got very little industrial pollution, the dark moths are as common as about 80% of the moth population, which is a contradiction to Kettlewell's theory as well.

WILKEN: Tell us about 4-winged fruit flies.

HECK: Ah, yes. This is one of my favorites. The idea is that fruit flies can develop an extra pair of wings, and it's done by means of genetic mutations. So it's suggesting if this can happen in a laboratory, therefore it shows that mutations can truly be a vehicle for evolution. In fact, when Darwin wrote The Origin of Species, it was believed by Darwin as well as everybody else that acquired characteristics can be inherited. So if a parent creature became extremely fast - was able to run very, very fast, because of training or whatever – then that characteristic would be passed onto its descendants. And so when it became proven that acquired characteristics can't be inherited, evolutionists needed to come up with a different vehicle, and mutations are the other major vehicle for explaining how evolution could result in these various creatures. Well, the problem with the fourwinged fruit fly, even though it's a beautiful picture and it looks convincing, the problem is that they don't occur spontaneously. They can only be derived in a laboratory by way of mutations. And in fact, the geneticist who produced the four-winged fruit flies had to use three successive mutations, all of them caused by him in order to achieve that fruit fly. And the end result was fruit flies that had a pair of wings that lack flight muscles. So these fruit flies with the four wings have difficulty flying, difficulty mating, die out easily, and in fact, it's the opposite of the survival of the fittest. That mutation is harmful to the fruit fly and more likely to result in its extinction, that and its evolution into some later and more complex version of the fruit fly.

WILKEN: In the short time that we've got left to us here, what's the Miller-Urey experiment?

HECK: Ah, yes. That goes back to the 1950s where it was thought that a laboratory experiment might possibly be able to simulate the earth's early atmosphere with electrical sparks and put together an experiment with a heat source and a condenser and some electrodes. And so Harold Urey was a Nobel Prize-winning chemist who came up with the idea that the early atmosphere didn't have oxygen in it. Since things can oxidize in an atmosphere, oxygen would have been fatal to our organic processes, so that the early atmosphere must have been hydrogen, methane, ammonium, and water vapor. So his graduate student, Stanley Miller, tested this with the heat, the condenser circulating cold water, electrical sparks, field tubes, and a vacuum line. After a week, he found two amino acids that are found in proteins, mostly inorganic compounds that do not occur in living organisms, and in fact, science generally believes these days that the early atmosphere of the earth had free oxygen in it, so it wasn't totally devoid of oxygen as Miller and Urey had concluded.

WILKEN: With the few minutes that are left to us, you're going to be one of the speakers at this conference in July at Concordia University Wisconsin, "The Heavens Declare." Give us a little preview of that conference, with no more than a minute here, Dr. Heck.

HECK: Yes. We have two world class astronomers coming in, each to give two plenary addresses about the nature of our universe, the vast distances of outer space, as well as one of our near neighbors, the moon, and what impact the moon has on our understanding of our solar system as well as our galaxy and our universe. Do the vast distances of outer space that are probably at least 150 billion light-years

across, does that disprove the Biblical account of creation and suggest that our universe is billions of years old rather than thousands of years old, as the Bible seems to suggest? So we're going to tackle that issue head-on with our two keynote speakers, one of whom works with Answers in Genesis and another one that works for the Creation Research Society.

WILKEN: Folks, you can find out more about this conference, July 8-10 at Concordia University Wisconsin, "The Heavens Declare: What Astronomy Can Tell Us About Biblical Creation," at our website: issuesetc.org. Click "Listen on Demand."

And plan ahead for July 8-10 at Concordia University Wisconsin for "The Heavens Declare" conference.

Dr. Joel Heck is Professor of Theology at Concordia University Texas and author of the book, *In the Beginning, God*.

Dr. Heck, I look forward to our next conversation.

HECK: And so do I. Thank you for having me.

