

IS GENESIS HISTORY?



The Interviews
Paul Nelson at Computer History Museum:
Mini-Computers

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On December 1, 2015, Compass Cinema interviewed Dr. Paul Nelson (PhD in Philosophy of Science and Evolutionary Biology from The University of Chicago) and Dr. Del Tackett at The Computer History Museum in Mountain View, California.

The Two Paradigms

PAUL: So when I was 19, I read Thomas Kuhn's classic *The Structure of Scientific Revolutions* where he describes this notion of paradigms. A paradigm governs really everything that you think about a particular subject. It provides this global framework. So, this room for example, we've got so-called 'mini computers' here, but really they're not mini at all in terms of our current paradigm.

DEL: Today, right? [pulls out cell phone]

PAUL: This! [pulls out cell phone] Right? So really to understand this question of origins you really need to begin by looking at the governing paradigms, the two major views that we currently have about the history of life and the history of the universe.

DEL: What are those paradigms?

PAUL: Well, the first one we can call the conventional paradigm, and it has certain key features, such as deep time. Currently 13.7 billion years for the history of the whole cosmos. 4.6 billion years for the history of planet earth. This is the view that the universe began a long time ago in a very simple state and by strictly physical processes developed gradually and continuously into all the complexity that we see today – galaxies, stars, planets, cells, animals, human beings. One long continuous story from a very simple beginning to today. Alright, that's one view. The second view we can call, let's say, the historical Genesis paradigm. Strikingly different. First of all you've got recency, right? This is not happening over a very long time. It's happening relatively recently and it begins in the state of functionality where it's working already. It's not gradually developing. It begins in a fully-functional state. You've got organisms present. They're doing what they need to do. You've got planets and solar systems already operating, brought into existence really within a very short span of time simultaneously. And homo sapiens is present right there, right at the start. So those two views contrast really at every point and their key features are also very different.

DEL: It's not hard to see there's a radical difference between those two in terms of time. What else do you see is contrasting between these two paradigms?

PAUL: To me the most striking difference is what kinds of causes are operating. So in the conventional paradigm it's physics running the show, physics through chemistry influencing biochemistry and then biology. All the change that's happening is coming bottom up from fundamental undirected mindless physical processes. They're doing everything. In the historical Genesis view underlying everything is mind, is intellect. A purposeful intelligence is bringing things into existence. That's a profound difference.

DEL: What are the key features of those paradigms?

PAUL: Well, let's start with time. In the conventional paradigm you've got deep time, 13.7, 13.8 billion years along which this gradual process of becoming is occurring beginning with primal simplicity finally ending in what we see today. In the historical Genesis view events are happening on a much more recent timescale and the universe, the solar system, our planet, life itself all of that begins fully formed as a functioning system. So there right from the start is a striking contrast in terms of the overall narrative of what's happening. But there are other differences as well.

DEL: What are they?

PAUL: Alright. What kinds of causes are acting? In the conventional paradigm everything is being driven by physics, meaning undirected material physical processes are running the show. So all the complexity that we see in life has to be built bottom up by strictly physical processes where no mind, no creator, no design is present. In the historical Genesis view everything starts with a divine mind, a creator, an intelligence that plans and superintends and brings into existence reality. And really that couldn't be a more striking contrast. No mind, no intellect, no intelligence. Intelligence as primary cause. Another key difference is the actual sequence of events. So in the conventional paradigm you have a gradual process whereby things are constructed beginning on what came before. So ultimately really you start with elementary particles, hydrogen and helium, the heavier elements, galaxies that are formed, planets and so forth leading eventually to the first cell. It's a continual process of gradual transformation. With the historical Genesis paradigm, you have a transcendent intelligence, God acting in space and time to bring things into existence in a sense discontinuous. And that pattern gives you discrete events in space and time that aren't strictly flowing one from the other. So you have the Creation. You have the Fall, which is a catastrophic event that affects all of the Creation in a radical way. So again you see a striking difference in the narrative that one would tell depending on your starting point. Lastly, and maybe this is the most important, what is the whole of reality? Is it strictly physical? Are we 'meat machines' that will decay into nothing upon our death or is there a spiritual dimension to our existence that is eternal, that has eternal value? And really that final point is the one I think that's most decisive because it ends up affecting how we treat each other. And science is one thing, but our moral sense, our relationship with God, we can't have a relationship with God if we are strictly physical creatures. So, finally on that fourth point you see the deepest difference between these two paradigms.

DEL: Well, Paul, what we described here are two paradigms that really have very little similarity. They are almost light years, if you want to use the phrase, light years apart. And it seems to me that the result of that is also radically different in terms of how I see myself, all of those philosophical questions: why am I here, what's the purpose of life, is there any meaning in all of this? And the paradigm that begins with natural processes and ends with natural processes, it's hard to find meaning.

PAUL: It's hard to find meaning. In fact, the very concept of a deeper meaning, a deeper purpose has no purchase in that view because if you're ultimately particles in motion, when

your particular bag of particles ceases to be in motion, it's over. That is not the view of historical Genesis where you are created, yes, as a physical object, but there is more to you than just your particles. In fact, there's infinitely more. And so, really, the difference ramifies out into every aspect of human life, which is why this question of origins is so important. It's not just a scientific matter. It's not just a scientific debate.

Evidence, the Nature of Science, & Intelligence

DEL: But it seems to me that the evidence that we have here is available to both of these paradigms if you just look at the physical evidence.

PAUL: The physical evidence is a common body of data that both views draw on and interpret, but they're taking from that common body of evidence very different meanings. They're going in very different directions. It's a bit like having a crime scene where you've got two detectives and they've got the same patterns. One guy says it's this, the other says it's that. They're going in quite different directions away from the same body of data.

DEL: And it seems that they're going in different directions because one paradigm is listening to a witness telling you the story of what happened versus the other one who is just looking at the physical data. Because isn't that what we have in the historical Genesis paradigm?

PAUL: We have a witness to those events, and that witness is telling us this is what happened, and we have to take that into consideration when we evaluate the data. When you've got a witness present, it's going to affect how you read the evidence that's available.

DEL: Well, that brings me to an issue I know you've heard often and I want us to look at this for a second, because one of the strong accusations against those who hold to a historical Genesis paradigm is that it's not based upon science. But that can't be true. Doesn't this paradigm also look at the reality of the physical evidence?

PAUL: Oh, of course it does. The problem with that objection, which I'm familiar with, is it's smuggling into the word 'science,' an assumption about a paradigm, namely, the conventional view for naturalism. And when someone says, well, you're not looking at it scientifically, what they're presupposing, or smuggling in, is you're only allowed to use physical processes. But you couldn't live a single day thinking that way. Every time you get a text on your phone, someone leaves a note in your car door when they bump your car in the supermarket parking lot, normal human life depends on our ability to detect the action of intelligence and we don't collapse intelligence into strictly physics. So, if a scientist tells me I'm not allowed to use intelligent design to understand or explain the world, I ask him how do you get through your day, because you're doing it all the time very reliably. So you need to be careful when you use the word 'science' to say, what meaning are you assigning to that word? 'Science' in its deep sense, its original usage in Latin meant knowledge. We know that Stonehenge was constructed by an intelligence. That conclusion will be true when our current theories of physics are long and gone. So these inferences to intelligence are very robust, they're strong and they're fully rational.

PAUL NELSON AT COMPUTER HISTORY MUSEUM

DEL: Well, Paul, as we're standing here in this Computer History Museum, no one...no one would say that all of this amazing technology just simply arose as a result of physical processes. We wouldn't do that. We know that an intelligent being—we saw the pictures of all of those amazing people who each added their own intelligence as a part of this process. And yet what we're dealing with is a paradigm that is not willing to accept that.

PAUL: It's a funny thing about the use of intelligence and explanation. It would be profoundly irrational to say that these devices self-assemble. In fact, no one would say that because it's simply not true. But when we come to things like the origin of life, the origin of the first cell, the origin of humankind, there the agent in question, the intelligence in question, wouldn't be a member of our species of homo sapiens. So, suddenly the temperature in the room goes way up because the implications for saying the first cell was caused by a mind suddenly involve things that look a lot like theology, and it becomes a much more difficult question for people to evaluate objectively, which is why these questions of origins, as I said a moment ago, aren't really simply scientific questions. They spill over in every point into theology, into philosophy, into these deep questions of who am I, why am I here, where am I going? So I think in many cases for scientists they function with a split personality. They would say 'yeah, a mini-computer had to have a designer.' I ask, 'how about a eukaryotic cell?' Vastly more sophisticated in its engineering, if you will, than any of the devices we've looked at. Now, that hypothesis of design that was rational for the mini-computer suddenly becomes problematic, not because of the evidence, but because of what it entails, what it implies about the universe.

DEL: It seems strange, of course, for those of us who hold to the Genesis paradigm to see that people would point back to Babbage, or to Seymour Cray, to those people that we know have the intelligence behind all of this. But it seems like there is a barrier, and we throw away that logic when we hit that barrier.

PAUL: You know, what's so funny to me is the same features in these systems, these computers that we say are diagnostic of an intelligent cause, such an integrated functionality, the role of information and so forth, those same features are present in a single bacterial cell, but at a much more sophisticated level. So, by consistent logic, you should say, 'look, this cell does things that we, frankly, can't even imagine how it's operating.' We need to look into that. So I see a disconnect between evidence and inference going from evidence to cause that really can't be explained as a question of science. What's happening is at some point along that pathway, there's a bypass, or there's an offering, and the rational chain that should lead you to a designer takes you off in a different direction.

DEL: I won't go there.

PAUL: I won't go there. Yeah.

Randomness, Order, & History

DEL: Paul, I remember when I was doing my undergraduate work, and some of my graduate work in AI [Artificial Intelligence] that the Holy Grail at that time, if not even now, is to find a perfect random number generator. And there were various reasons why we needed random numbers, but the problem was that every random number generator that we made — because it was made by us — ended up all, of the sudden, beginning to repeat itself. And so it wasn't truly random. And it appears to me what we know for sure is that randomness never produces order. Otherwise it's not random.

PAUL: Right. Randomness does not give you the kind of functional information that any living thing needs. In fact, you can think of living things as fighting all the time against randomness. Randomness is the enemy. In fact, randomness is the enemy of any functional integrated system, certainly all of the computers that we've been looking at are constructed in such a way that they avoid error and they avoid randomness because it's destructive of purposeful function. And I think if we zoom out from that and say, well, what really is the difference between these two paradigms? It isn't a question of science on the one hand versus religion on the other, because both of them are scientific in the sense of looking at a common body of data. Really, at the deepest level, the difference is two competing views of history. What is the true history of our cosmos? And, in that light, I think it makes a lot more sense to look at them as paradigms that draw on different accounts of history with different implications.

DEL: It seems that one paradigm is drawing on a history that was given to us and another paradigm is constructing that history. Is that how you see that?

PAUL: Well, it's constructing that history under a set of constraints. The history can only appeal to physical processes. So, if in reality a designer or creator did act discretely in space and time, they can't detect that because they've ruled out that possibility from the start. If you look at a puzzle and decide that certain answers are unacceptable to you, it really doesn't matter what the evidence is, you're never going to discover those answers. So, if you begin doing your history with an assumption and only allow to use this restrictive set of strictly physical causes, you will be unable to discover the true history, if the true history involved an intelligence.

DEL: I like that picture. I think of a jigsaw puzzle, and if you're putting a jigsaw puzzle together and you refuse to use any piece that had blue in it, then you wouldn't be able to construct the true picture.

PAUL: Right. And you're doing so in a way that limits your freedom as an investigator. When I come at the world as a curious human being, and I would say this even if I weren't a theist, I want all the possible causes on the table, because I want the world to be as mysterious and original and puzzling as it naturally is, and then I'm going to figure that out using all the range of possible causes because then I have the best chance of getting at the truth. So, competing histories, one of which says only certain kinds of causes are allowed, the other is saying well, yes, physical causes are real but we also know about the reality of intelligence.

PAUL NELSON AT COMPUTER HISTORY MUSEUM

DEL: Well, Paul, this becomes serious in that we're not talking about a history of just boiling water at a certain temperature. We're talking about a history that deals with the origin of the universe. It deals with the origin of life, the origin of humanity, the origin of sin and why there's evil in the world, the origin of the geologic formations that we have around us, the origin of language. I mean this is history that is not minor. This is dealing with major, major elements of humanity and where we are today.

PAUL: Yeah. You're talking about the origin of literally everything. And it's hard to make sense of something like having a concept of right and wrong if you have to dissolve that into physics. Particles in motion don't know anything of moral categories. So moral categories, saying that action is intrinsically wrong, don't do it. It's hard to make sense of that if the universe itself is indifferent. So, really for me, the reality of having a sense of good and evil, it depends on their being a cosmic good and evil. That really has to be anchored in a personality and in a divine mind.

DEL: And that's the thing we understand from that written history. Paul, you were talking earlier about the complexity of a cell. How complex is that from your study?

PAUL: Well I'll tell you, more complex than a super computer. There's a revolution ongoing in biology that I find quite remarkable, and it's revealed layers of complexity that no one anticipated. So, you can talk about a super computer. In fact, I think I saw some in here. We're at a deeper level even than that.

DEL: Well, I want to see a super computer.