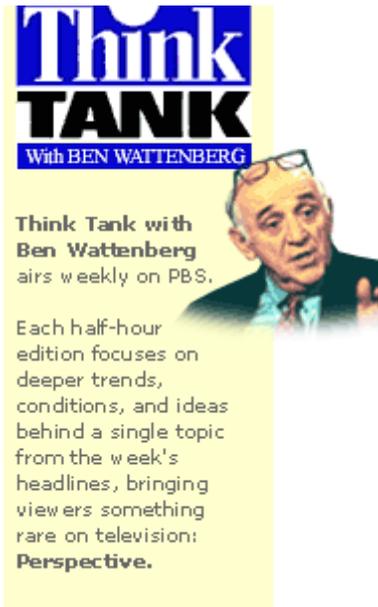


Transcript for:  
**Intelligent Design vs. Evolution**



In recent decades Charles Darwin's explanation of evolution through natural selection has been challenged by an alternative theory called Intelligent Design. A growing number of science teachers and school boards are struggling with how to present students with the facts. Even acknowledging

the existence of an argument has become controversial. How should students learn the history of life on this planet? Are Christianity and other major religions incompatible with Darwinian evolution? Is there any evidence to support the new theory of intelligent design? Can ID and Darwin find common ground?

To find out, Think Tank is joined this week by Dr. Stephen Meyer, director of the Discovery Institute's Center for Science and Culture and author of *Darwinism, Design and Public Education*.

...and by Dr. Michael Ruse, Director of the Program in the Philosophy of the History of Science at Florida State University and author of numerous books including *Darwinism and Design* and *Can a Darwinian be a Christian?*

The Topic Before the House: Intelligent Design vs. Evolution, Survival of the Fittest?

WATTENBERG: Welcome to Think Tank, gentlemen. Michael Ruse, Steve Meyer. It is a delight to have you. The topic to me is a fascinating one. Let me break precedence here and begin with the younger. Steve Meyer, is intelligent design different from creationism?

STEVE: It is. It's also different from Darwinian evolution. Maybe I could explain what it is and then the contrast between the two will be clear. Intelligent design is the idea that there

are certain features of living systems that are best explained by designing intelligence, rather than an undirected process. That is, by studying nature, you can tell something of the effects that an intelligence has had on nature. Creationism starts from a different premise. Not the biological evidence, but rather, it starts from holy writ from the bible and makes an interpretation about the length of the days in Genesis.

WATTENBERG: But it's not just the bible.

Every religion has this creation myth.

STEVE: Sure. But the theory of intelligent design is an inference from biological data, not a deduction from religious authority. We're looking at things like the little miniature machines that are being discovered in cells. The rotary engines, the nano technology. The turbines, the sliding clamps, the intricate circuitry that's being discovered inside cells. And especially important is the libraries of information that are stored in the DNA molecule in the form of a four character digital code. For us this is the basis of the inference to design. Not something that you deduce from scripture. So we're different from the creationists, but we're also different, not from people who hold to evolution. We're not against evolution

per se. Because evolution can mean change over time or even common ancestry, which are not meanings of the terms that we dispute. But we do challenge the specifically Darwinian idea that life is the result of a purely undirected process that merely mimics the powers of the designing intelligent so that the appearance of design is an illusion. And classical Darwinism and modern Darwinism both say that things look design but they're not really, because natural selection produces that appearance. We disagree with that and say that life really is design.

WATTENBERG: Michael, before you, I assume, rebut that, give us a little bit of your background and later Steve, you could do that also. Where'd you go to school? Where'd you grow up?

MICHAEL: Yes. Well, I'm a historian, philosopher of science, who specializes in Darwin. Obviously, I was born in Darwin's country; I'm English. But I've lived in North America for the last forty something years. And I've

gone all the way from rather technical philosophy of science in my early years, to a fairly full-blown engagement with creationism, with intelligent design theory and many of these other sorts of issues. I teach now at Florida State

WATTENBERG: Okay, what problem do you have with your young colleague here?

MICHAEL: Well, I think Steve's a really nice guy. I've known Steve for many years. I think he's a bit of a sweetie, but as Winston Churchill once said, I think pretending that intelligent design theory has nothing to do with religion is what Churchill called, what was it, "a terminologically inexactitude." In other words, it's a great big fib. I agree with him completely that old fashioned creationism -- and old fashioned creationism is only thirty or forty years old -- but that I agree with him. I think there's a difference between creationism and intelligent design theory. I think...

WATTENBERG: Now wait a minute. You say thirty or forty years old. William Jennings (Bryan?) in the scopes trial; that goes back eighty years.

MICHAEL: Actually, I'm glad you asked that question. Because I've got an answer to it.

WATTENBERG: That's what I get the big bucks for.

MICHAEL: Right. In fact, people like William Jennings Bryan for instance, him in particular did not believe that the earth was that young. They certainly did not believe that the earth was six thousand years old. When William Jennings Bryan was asked by Clarence Darrow on the witness stand about the six days of creation, what Bryan said is, "in the eyes of the Lord, a thousand years honors a day." He said, "as far as I'm concerned, that's not the issue." He said, "If you want to believe that it's a short time," he said, "I've got no problem with that, but it's not my position." Only since the second world war that we've really started to get in a major way, this young earth creationism. This six thousand years. Which, of course, as people like Ron Numbers have pointed out, is in fact, a Seventh Day Adventists belief, which does in fact, go back to the nineteenth century Seventh Day Adventists were very keen on the six days being literal days because the Sabbath also had to be a twenty-four-hour day.

WATTENBERG: Yeah, but you can define a day as a lot of things.

MICHAEL: You can, but if you wanted to find it...

STEVE: You understand, Ben, that we have no problem with the ancient chronology of the earth...(Unintelligible) Creationism is not our position.

MICHAEL: I appreciate that. But what I'm saying is that basically the creationism that you and I, Ben, would've grown up with -- I mean Steve's a bit young for it -- but the creationism that we grew up with dates back to 1961 in a book called Genesis Flood by a couple of people, Henry Morris, a scientist, and John Whitcomb, a bible scholar, where they argue that the earth is, in fact, six thousand years old, and it was six days of creation, and of course, the massive flood.

MICHAEL: What I'm saying is I agree with Steve completely that intelligent design theory which goes back I think the last eighties, 1980s, and certainly...

STEVE: Actually, earlier than that.

MICHAEL: Well, certainly -- well I think it goes back to Plato of course, cause I don't think you're saying anything new, but certainly as we know it, I think certainly was started by Philip Johnson in a big way with his book Darwin on Trial in 1991. And certainly that was the thing which got the movement going.

So, I agree with Steve that there are differences. Nevertheless, I would want to say, for both creationism and intelligent design theory, there's a deeply, deeply, antiscientific, anti naturalistic attitude which ultimately goes back to the bible being read more literally than traditional Christians would read it.

STEVE: Let me respond to that...

WATTENBERG: Steve, give me your word on your background...

STEVE: Yeah yeah My background is actually relevant to what Michael said.

WATTENBERG: ...and then I've got a little riff that I want to do.

STEVE: Sure. Sure. My background is actually relevant to what Michael said. Deeply antiscientific. I started out in the field of geophysics. I was doing digital signal processing.

WATTENBERG: Whatever that means.

STEVE: It's a science. Looking at information in the field of seismology. And I went to a

conference on the origin of life. I was in my mid-twenties and it was in the early eighties and there were three scientists there that were arguing the digital information that's encoded in DNA is evidence of a prior intelligence. And they were suggesting that the classical argument from design that goes all the way back to Plato and Aristotle could be resuscitated on the basis of modern scientific discoveries. I was fascinated with that. I spent -- I didn't come out of the Christian sub-culture that Michael was referring to. I spent my college years in existential despair reading Niche and it was a little put-on perhaps, but it was. So encountered this idea and it was really intrigued with it. And I ended up going back to graduate school in England in the same field as Michael. Philosophy of science. And I--

WATTENBERG: What school?

STEVE: Cambridge University. And wanted --

WATTNEBERG: Good tickets you guys have?

STEVE: We both have the benefit of a proper (unintelligible.)

In any case, I had a question, which was, can this intuition that information in DNA, can that idea that information in DNA points to a prior intelligent cause, can that be made into a rigorous scientific argument? And I started to study the history of scientists who are reasoning about the past. And I went to look at the works of Darwin and Lial the great geologist. And I found that they had a very sensible methodological principle that they developed in order to study the past which was that when you're trying to reconstruct what happened in the past you shouldn't infer causes that are exotic, the effects of which we've never seen. That instead, you should rely on known causes, causes that are known to produce the effects in question. And so I asked myself a question; what is the known cause of digital information? Lial had a famous phrase. He said we should be looking for "presently acting causes." What's the presently acting cause? Of The origin of information. Well in our experience, whether that's hieroglyphic text or software, or a section of written text, it's always intelligence. And so what occurred to me was that the methodological principal that had guided Darwin and Lial and the great founders of geology and evolution of biology actually

underscored a new way of making an argument for design. And I think that it is a very scientific argument and I'm very pro-science. We just have come to a different conclusion about this central issue of whether life is appear as designed or is really designed.

WATTENBERG: Let me see if I can get this right what I think. All people who believe in intelligent design may or may not be creationists. But all people who believe in intelligent design are not creationists. (Freud) believed in an intelligent design, Einstein believed in an intelligent design, and Charles Darwin believed in intelligent design. He had an idea as to how the world works. And uhh...

MICHAEL: I hate to interrupt our host right there. I mean, at one level what you're saying is right. At another level it's just simply not right. I mean, we know that Darwin did believe in God, we know that Darwin believed in God right through the writing of the origin of species in 1859. He believed in a God who was an unmoved mover. Technically (unintelligible.) By the end of his life, Darwin was probably an agnostic. I think...

STEVE: He confessed to being hopelessly muddled.

WATTENBERG: I, in my wisdom, think that the only the seriously intelligent position is agnosticism. And anyone who claims to know how the world works, I don't believe frankly. I mean, are you a...

STEVE: I'm a theist. I believe there is a God. But I agree with you. I think you come to these things through a chain of reasoning and reflection. Especially when you're starting with the analysis of scientific evidence. Dogmatism befits anyone who's thinking about these big questions. For us the inference to design is an inference. And it's a justified inference because of what we know about the cause and effect structure of the world.

Namely that it always takes an intelligence to produce information. And we find the information in the cell therefore we think it's the best explanation of that evidence that intelligence played a role. But given that that's a scientific conclusion based on an analysis of data, you have to remain open to the evidence changing or different interpretations.

MICHAEL: But Steve, what is this intelligence?

STEVE: There's two aspects of this; you can't tell from the science alone the identity of the

designer. I'd be like having a painting that wasn't signed or a section of poetry that didn't have the author's name at the bottom. You can tell from the characteristic signature of intelligence, namely the presence of information, that some mind played a role. But we can't tell from the science, the identity. I for other reasons am a theist. I think that there are -- when you supplement the design argument from biology with design arguments from physics and cosmology and also look at other considerations like the moral sensibilities of humans and our ability to know and understand the world around us, I think there's a good case to be made philosophically for theism. But that's a second order reflection or inference that I would make beyond what I can know scientifically.

MICHAEL: But I don't think you're quite right to say if a painting is unsigned we can't say anything. I mean, 'cause obviously a good art historian can look at the painting and maybe say, it's not signed but I think it's thirteenth century school of whatever.

STEVE: Sure. Sure.

MICHAEL: Or it's not signed but I think this is impressionist. It could be Renoir but I'm inclined to think it's not. Now, you're looking at the world and I take it that you're at least saying things like, I don't think that this was a naturalistic designer, I really don't think that this was a grad student on Andromeda running experiments here on earth to get his PhD.

STEVE: Correct. We're looking at a mind, not a material process. I think when we look at the intricacy of the information processing system itself...

WATTENBERG: Can I just interrupt here for a minute? If you had to say it in a sentence or two, each of you, age has its privileges here, with what do you disagree with Steve about and vice versa? Let's just try to narrow this down, because it's a little confusing.

MICHAEL: I think he's not appealing to scientific ideas. I think he's appealing to religious ideas for all that he's saying that this is not religiously driven, I think that it is. But also, and I trust we'll get into this, I think it's also part of a general social cultural agenda which I would, in fact, link with the creationists.

STEVE: I always like it when Michael puts me on the couch like that. This has become a

fashionable way of avoiding our argumentists to impute to us some agenda or dishonest motive. But you still have to explain the origin of the digital code that's in DNA. You still have to explain the origins of these machines. And for us the key scientific issue is the issue that Darwin himself posed which is, is the appearance of design in biology real, or merely apparent? Is designing biology an illusion produced by a natural mechanism, namely natural selection that can mimic the powers of a designing intelligence, or is that appearance of design, which all biologists recognize the product of actually intelligence? A mind, not a material process? I think that's the essence of the scientific and philosophical debate. We all have agendas. You can't refute a guy by pointing out that he has a point of view, or by pointing out that an idea may have some implications that you don't favor. It may well be that if you accept that there is a design and a designer that favors a theistic world view over against a materialistic world view. It may well be that if you hold to Darwinian view, that that favors a more materialistic philosophical picture. But those are implications of more primary scientific questions. So I don't say, as Michael said before, this debate has nothing to do with religion or philosophy. Rather I would say that the important questions -- the key is the distinction between the evidence and the implications.

WATTENBERG: Are you a practicing Christian?

STEVE: I am a practicing Christian.

WATTENBERG: You are not?

MICHAEL: I'm not. I was brought up as a Quaker but like you, I'm an agnostic. As you said, I'm not an atheist.

WATTENBERG: I'm an agnostic with a powerful believer in some prime mover which is in ethical. That's where I come out of...

MICHAEL: Well, I'm not that much of an -- I'm not that close.

WATTENBERG: I mean, who created God, where does the universe end? I mean, what's it all about?

STEVE: Ben, if I could just real briefly -- I think the key to this is making a distinction between the evidence and the implications. Intelligent design as a theory is based on certain key evidences. Look at our papers. All of our arguments are based on the evidence.

The implications of the theory -- that's another discussion. And there may well be larger implications that are favorable to some kind of belief, whether it be Christian, Jewish, or some kind of theistic belief. But that's an implication and not the basis of the theory. You can't critique our theory simply by saying, "well, it has an implication that I don't like," or find unsavory. Any more than I could critique Michael or Richard Dawkins or the Darwinists by saying, well, Richard Dawkins has said that Darwinism makes it possible to be an intellectually fulfilled atheist. It would be improper for me to say well, Darwinism is wrong because Dawkins thinks it supports atheism, and atheism is bad. That's WATTENBERG: Dawkins says he believes in atheists.

STEVE: He does. And he thinks Darwinism supports it.

WATTENBERG: How he knows this, I don't know.

MICHAEL: Can I just interrupt just for one moment? First of all, I don't think your motives are dishonest. I think you know me well enough now to know that I don't think that in dealing with you people at the Discovery Institute or indeed with the people at the Institute for Creation Research that I'm dealing with a bunch of crooks. Because I don't think you are. I think you're profoundly mistaken, I think you are often more religious than you let on, I think that you do try strategies to get around the separation of church and state, I think all of those things. But I think that you are deeply sincerely, if misguided evangelical Christians. So that is very much where I come from, and that's where I feel at least we can meet there. Now let's get back to the science.

STEVE: You're damning us with some extravagant...

MICHAEL: No! No! If I was saying you're nut-cases or loonies, then I might be! But I'm not!

STEVE: Correct. But we're not doing a lot of things. We're not trying to get around the separation of church and state. We're a bunch of people who are fascinated with the scientific evidence. And the big questions that derive from them. They go back to the Greeks, Plato, and Aristotle. They were taken up in the middle ages by Aquinas and

Pnemonities (ph?) They were with us in Darwin's time. They're with us today. Is the universe the produce of design and purpose, or is it the result of an undirected process, purposeless universe? That's a big important question that science is now addressing. It's a fascinating thing. And I just fail to see any scandal in that.

WATTENBERG: The title of Darwin's seminal work as I understand it as I recall it is, A Theory - and I know theory is a funny word - A Theory of the Descent of Man and Human Evolution, something like that. Is that right?

MICHAEL: It's a selection in relation to sex.

WATTENBERG: So, he was honest enough to say it's a theory. And we have this great debate in the United States, I doubt that it exists in Canada, about what we should teach. And the alternative, intelligent design people say, let's teach what people are arguing about. People all over this country and the world are saying this. There's this, there's that, there's the other thing. Value free. Here's what Steve believes, here's what Michael believes, here's what Ben believes. As a civil libertarian, which I know you are one, what objection -- if it's taught neutrally, you know...

MICHAEL: I have absolutely no objection in this. In fact, I would welcome the teaching of intelligent design in courses on comparative religion. I think one of the big problems we've got in American high schools is that kids are not taught about religion. And I think in this day and age, when Islam is such a worry, threat, I think it's criminal that young people are not being taught about what it's like. So on that level, I would want Christianity taught, all kinds, including intelligent design. I don't think it's appropriate to teach it in biology classes. Because some people believe something sincerely, does not mean that it should be brought into class, nor is it a civil liberties issue. I don't want, let us say, I don't want Christian Science taught in medical schools. I want the teachers to know about Christian Science, or rather the students to know about it, but I don't want them to be taught it as something which is on the exam just like modern medicine. And it's the same with intelligent design.

WATTENBERG: That sounds reasonable.

STEVE: Well, Michael and I disagree, this is

mainly a definitional issue in the end. He doesn't want to categorize the design hypothesis as a scientific hypothesis. And yet, part of Darwinism is the attempt to explain the appearance of design. Darwinism says the appearance of design is illusory; intelligent design says it's real. You have two competing hypotheses trying to explain the same piece of evidence. How is one scientific and the other religious? They're competing explanations for the same thing. The reason it's appropriate to discuss intelligent design is that it is an explanation for biology. Now, Ben, I know you have a policy audience for Think Tank. I might just take a minute, just explain what our thinking on this is.

WATTENBERG: We have a very unique audience. Go ahead.

STEVE: The Discovery Institute, which is the institutional home of many of the scholars who are advancing the theory, is not actually advocating that we require students to learn about the theory of intelligent design. Our position right now is that it would be perfectly legitimate and appropriate for students simply to learn Darwinian theory, and to learn the counter arguments against it. The critiques.

WATTENBERG: But, Michael's point seems reasonable that you teach that in comparative philosophy, in comparative religion, not necessarily biology.

STEVE: Except that these arguments are in biological journals. There's a tremendous amount of literature. Darwin had -- you were talking about the word theory -- Darwin had a more important word that he used in the origin. Talked about the origin of species being one long argument. And when I was in my doctoral studies in Britain, I had a tutor...

WATTENBERG: Oxford?

STEVE: Cambridge. He said, "beware the sound of one hand clapping." And in biology like in every other field, any time you have an argument, there is a counter argument. And the discovery that I made was...

WATTENBERG: And that's how we advance.

STEVE: That's how science advances. And Michael has the idea that science is this pristine realm of endeavor that does not involve argumentation or differences of interpretation. And therefore, when you have a fundamental difference, then it must be philosophy or religion that should be sequestered off to

the side. But scientists, like everyone else, argue about how to interpret things. And if we deprive students of those arguments, we're depriving them of a scientific education.

WATTENBERG: Does it really matter in which class it's taught? Whether it's taught in comparative religion, or whether it's taught in biology? Just so long as students are exposed to the fact that there is an argument?

STEVE: In the end, no. Because, more fundamentally, I don't think it matters what you call it. I think we're hung up on these science, philosophy, religion. These are categories of human thought. What we're interested in is how do you explain the complexity that we see in life? And we think that design is the best explanation. If Michael wants to classify that as a philosophy hypothesis, then I would say that our philosophical hypothesis provides a better explanation than his currently popular Darwinian scientific hypothesis. What you call the inference or the hypothesis is not as important as whether or not it's true.

WATTENBERG: Ok, on that note, we'll have to end it there for now. Stephen Meyer, Michael Ruse, thanks for joining us on Think Tank. And thank YOU. Please remember to join us for a future episode when we will continue our discussion about Evolution and Intelligent Design. Also, remember to send us your comments via email, we think it makes our show better. And now you can visit our blog to join in the discussions behind the show. For Think Tank I'm Ben Wattenberg.

Announcer: We at Think Tank depend on your views to make our show better. Please send your questions and comments to New River Media, 4455 Connecticut Ave NW, Suite C-100, Washington, DC 20008 or email us at [thinktank@pbs.org](mailto:thinktank@pbs.org). To learn more about Think Tank, visit PBS online at [pbs.org](http://pbs.org) and please let us know where you watch Think Tank.

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