IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

TAMMY J. KITZMILLER, et al., Plaintiffs	:	
	:	Case Number
vs.	:	4:04-CV-02688
DOVER AREA SCHOOL DISTRICT; DOVER AREA SCHOOL DISTRICT BOARD OF DIRECTORS, Defendants	:	

AFTERNOON SESSION

TRANSCRIPT OF PROCEEDINGS
OF BENCH TRIAL

Before: HONORABLE JOHN E. JONES, III

Date : September 30, 2005

Place : Courtroom Number 2, 9th Floor
Federal Building
228 Walnut Street
Harrisburg, Pennsylvania

COUNSEL PRESENT:

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I N D E X

WITNESSES

THE COURT: We convene for our somewhat, as I understand it, abbreviated Friday afternoon session. And we are still on the plaintiffs' case.

MR. WILCOX: Your Honor, I'm Alfred Wilcox from Pepper Hamilton, LLP, and I'd like to call the plaintiffs' next witness, John Haught.

THE COURT: Nice to see you, Mr. Wilcox. I've seen you but not in that chair. You may proceed.

JOHN F. HAUGHT, PH.D., called as a witness, having been duly sworn or affirmed, testified as follows:

THE CLERK: If you'll state your name and spell your name for the record, please.

THE WITNESS: John F. Haught, H-a-u-g-h-t.

DIRECT EXAMINATION

BY MR. WILCOX:

Q. Professor Haught, are you married?

A. Yes, I am.

Q. Where do you live?

A. I live in Falls Church, Virginia.

Q. Do you have any children?

A. I have two boys.

Q. I understand you are officially retired now?

A. I'm officially retired.

Q. When did you officially retire?

A. At the beginning of this year.

Q. Do you have a current CV?

A. Yes, I do.

MR. WILCOX: May I approach the witness, Your Honor?

THE COURT: You may.

BY MR. WILCOX:

Q. Professor Haught, I show you what's been marked as Plaintiffs' Exhibit P315. Is that a copy of your current CV?

A. Yes, it is.

Q. Your qualifications to testify as an expert in this case have already been stipulated to, but I'd like to just spend a few minutes calling out some highlights in your career for the Court.

Am I correct that you received your Ph.D. from Catholic University in 1970?

A. Yes.

Q. And what was that in?

A. In theology.

Q. And have you been teaching and writing about theology ever since?

A. Yes, I have.

Q. You rose from being an instructor in theology at Georgetown University to being chair of

the Theology Department?

A. Yes, I did.

Q. When was that that you became chair?

A. In 1990 through '95.

Q. And your CV contains a list of the various books that you have published. How many books have you published overall?

A. 13.

Q. Of those 13, some of them deal generally with the subject of science and religion. Is that correct?

A. That's correct.

Q. And some of them deal specifically with the subject of evolution and religion. Is that correct?

A. Yes. Three of my books deal explicitly with evolution and religion.

Q. I'm holding up -- and we're not going to mark this at this point -- a book titled, *God After Darwin*, by John F. Haught. Is that one of yours that deals specifically with evolution and religion?

A. It deals with evolution and theology.

Q. And a book called, *Deeper Than Darwin*. Is that another of --

A. That's a sequel to *God After Darwin*.

Q. And a paperback, *Responses to 101 Questions*

on God and Evolution?

A. Yes.

Q. The title is apt?

A. That's apt.

Q. And I'm holding up some others, one called, *The Cosmic Adventure: Science, Religion and the Quest for Purpose*.

A. Yes.

Q. Is that a broader --

A. That's a broader discussion, includes evolution but goes beyond it, as well.

Q. And one, *Science and Religion: In Search of Cosmic Purpose*?

A. That's a book that I edited.

Q. *Science and Religion: From Conflict to Conversation*?

A. That's an introductory text for college and intelligent laypeople on science and religion.

Q. In either your classroom work or your academic writing have you encountered the notion of intelligent design?

A. Yes, I have.

Q. Are you familiar with the writings of intelligent design proponents?

A. Yes, I am.

Q. And have you heard them speak on the subject of intelligent design?

A. I have, yes.

Q. In your opinion, is intelligent design a religious proposition or a scientific proposition?

A. It's essentially a religious proposition.

Q. We're going to spend the rest of our time together exploring your reasons for that opinion. What do you understand intelligent design to be?

A. I understand it to be a reformulation of an old theological argument for the existence of God, an argument that unfolds in the form of a syllogism, the major premise of which is wherever there is complex design, there has to be some intelligent designer. The minor premise is that nature exhibits complex design. The conclusion, therefore, nature must have an intelligent designer.

Q. You said this is an old tradition. Can you trace the antecedence for us?

A. Well, two landmarks are Thomas Aquinas and William Paley. Thomas Aquinas was a famous theologian/philosopher who lived in the 13th Century. And one of his claims to fame is that he formulated what are called the five ways to prove the existence of God, one of which was to argue from the design and

complexity and order and pattern in the universe to the existence of an ultimate intelligent designer. The second landmark -- incidentally, Thomas Aquinas ended every one of his five arguments by saying that this being, this ultimate, everyone understands to be God.

And William Paley, in the late 18th and early 19th Century, is famous for formulating the famous watchmaker argument, according to which, just as you open up a watch and find there intricate design and that should lead you to postulate the existence of a watchmaker, so also the intricate design and pattern in nature should lead one to posit the existence of an intelligent being that's responsible for the existence of design and pattern in nature.

And like Aquinas, William Paley also said to the effect that everyone understands this to be the God of biblical theism, the creator God of biblical religion.

Q. How does intelligent design build upon or modernize this old tradition of natural theology?

A. Well, it simply appeals to more recent findings about the complexity of the world by contemporary science, for example, what are called irreducible complexity and specified informational

complexity.

The irreducible complexity idea that the intelligent design proponents, especially Michael Behe, use refers to the subcellular intricacy that's been made available by the electron microscope since the 1950s and also such things as blood clotting mechanisms, immune systems, and so forth.

And then more recently William Dembski, especially, has talked about how the specified informational complexity in the DNA at the nucleus of cells consists of a specific sequence of nucleotides which form a recipe or a template for the design of the organism as a whole.

Q. It may be possible, if you drop that microphone down a bit, that the "P" sound won't be as pronounced here. With us?

Does intelligent design identify the designer as God?

A. Intelligent design proponents stop short of identifying the intelligent designer as God, but I would say that the structure and history of Western thought, especially religious thought as such, that most readers, if not all, will immediately identify this intelligent agent with the deity of theistic that is biblically-based religion.

Q. Does intelligent design resemble creation science from the 1960s and 1970s in America?

A. Well, both creation science and intelligent design argue that the intelligence that runs the universe, that guides the universe, is something that has to be brought down to the level of scientific explanation.

They both deny that natural causes alone can bring about the complexity of life, so what they share is the tendency to bring into scientific discourse a category which I don't think belongs there, namely intelligent design, to make up for what seems impossible for nature to bring about by itself.

And they also share the idea of what's called "special creation," according to which the intelligent designer or the creator intervenes from time to time to bring about specifically new and distinct species of life, which could not have come about for them by common descent but had to be created individually by ad hoc acts of the deity.

Q. Have you read parts of or all of *Of Pandas and People*?

A. I've read parts of it.

Q. At Page 85 -- this is P11, Your Honor, Exhibit P11. At Page 85, *Pandas and People* is talking

about an analogy drawn on the structure of DNA and says, "This strong analogy leads to the conclusion that life itself owes its origin to a master intellect."

Is that consistent with the explanation you've just been giving about --

A. Yes, it is.

Q. And you reference the concept of special creation. Starting at Page 99 and going over to Page 100, the text of *Pandas and People* says, quote, Intelligent design means that various forms of life began abruptly through an intelligent agency with their distinctive features already in tact: fish with fins and scales, birds with feathers, beaks, and wings, et cetera. Is that an example of special creation?

A. It's a very good example of what special creation means.

Q. Is intelligent design in any way different from creation science?

A. Intelligent design stops short of explicitly identifying the intelligent designer with the Creator. And also, in my opinion, in my reading of intelligent design works, I would say that on the average, they are less biblically literalists in their

interpretation of Scripture than those who call themselves creation scientists. But substantively they're very much the same.

Q. I'd like to shift gears, and we've talked about intelligent design. Now let's talk about what makes the subject religion or religious.

In your report that you've submitted here, you identified three characteristics or qualities where you equate with religion or religious. The first of those is a devotion to an ultimate in importance and explanatory power. Could you tell us what you mean by that?

A. Well, there are different levels of explanation. Science, I believe, works with near at hand, available, observable natural explanations, but the human mind also looks for ultimate explanations. And it's at the level of ultimate explanations that the -- what we call theological discourse is appropriately located.

Q. *Pandas* -- we referred just a minute ago to a quote from *Pandas* where it refers to a master intellect. Is that consistent with this notion of ultimate?

A. Yes. Clearly the notion of a master intellect, which assumes that we can't go any further

than the master intellect, fits in the category of ultimate explanation, as well as ultimate in the order of being.

Q. I'd like to quote again from *Pandas*, Page 6. Quote, In the world around us, we see two classes of things, natural objects like rivers and mountains and manmade structures like houses and computers. To put it in the context of origins, we see things resulting from two kinds of causes, natural and intelligent.

Does this shed light on whether *Pandas* is religious in the sense we've just been talking about?

A. Yes, it does. If there are only two kinds of causes, natural causes and intelligent causes, then that implies logically that intelligent causes are not natural causes. And I don't know where else one would logically locate the intelligent causes except in the space of an ultimate explanation.

Q. Another of your definitions of "religious" is as a reference to a mystery that unfolds the ordinary world but is not fully accessible to the senses of those of us in that ordinary world.

Does *Pandas* reveal whether intelligent design is religious in that second sense, as well?

A. If I could refer to a quotation here. The authors of *Pandas and People* ask this question: "What

kind of intelligent agent was it?" And then it goes on to say, the book goes on to say, "On its own, science cannot answer this question. It must leave it to religion and philosophy."

So that would lead one to conclude that only a religious explanation is going to give a complete explanation of life.

MR. WILCOX: For the record, Your Honor, that quote was from Page 7 of P11.

BY MR. WILCOX:

Q. A third definition of religion you articulate in your report is Western cultural theism or a belief in a God who is good, powerful, and intelligent. At the risk of belaboring the point, does *Pandas* shed any light on whether intelligent design meets this definition of religion?

A. Yes. The very idea of intelligence implies that it resides somehow within a being that is at least personal. And in the case of theistic religion, God is seen as personal, so it's just automatic and logical that one would identify this intelligent agent with the personal God, creator God, transcendent God, all good, all beneficent God of Christian and biblical theism.

Q. For intelligent design to be coherent or

intelligible, does it require a particular religious world-view?

A. In my view, the way in which intelligent design is used in the discourse that's in dispute, it does entail an essentially biblical and specifically Christian view of the world and an ultimate intelligence, ultimate reality.

Q. Do you have any information as to whether the leading proponents of intelligent design are themselves deeply Christian?

A. In my experience -- and I've read quite a few of them -- I see no exceptions to what I take to be the fact that all of them are deeply religious people, deeply committed to the cause of the survival of Western theism, and I see this as one of the motivating factors behind the whole movement.

Q. Has your study of intelligent design acquainted you with the motivations of its leading proponents?

A. Yes.

Q. What have you observed?

A. Well, I've observed that, again, without exception, their objective seems to me to get at the heart of what they consider to be the source of moral and spiritual decay. And they do this by using a

strategic tool or what they call a Wedge to combat the materialistic world-view which they consider to be inextricably connected to a Darwinian way of looking at life or, more generally, to an evolutionary biological way of looking at life.

Q. And by a materialist world-view or belief system, what does that mean?

A. Materialism is a belief system that claims that matter, lifeless and mindless matter, is the ultimate foundation of all reality, and there's nothing more ultimate than that. So it's kind of religious in the first sense of my term, a belief in something of ultimate importance.

For the materialist, matter is the ultimate creator, the ultimate source of all being, and therefore it excludes the existence of anything supernatural, certainly the existence of God.

Q. Are you familiar with the work of William Dembski?

A. Yes, I am.

Q. Who is he?

A. William Dembski is a leading proponent of the intelligent design movement, if you want to call it that. He's one of the top two or three spokespersons for intelligent design today.

Q. Are you familiar with his introductory essay in the book *Mere Creation*?

A. Yes, I am.

MR. WILCOX: For the record Your Honor, that's Exhibit P340.

BY MR. WILCOX:

Q. Does Dr. Dembski's essay shed any light on the question whether intelligent design is conceived of as essentially a religious proposition?

A. Yes, it's very interesting what he says in this introduction to this very important book in intelligent design thinking. And I'd like to quote this, because I think it's very important.

He says that one prong of the intelligent design program is, quote, a sustained theological investigation that connects the intelligence inferred by intelligent design with the God of Scripture.

And after reading that, I don't think one could have any doubt as to what is really going on here, namely an attempt to promote a biblically theistic way of looking at reality.

MR. WILCOX: For the record, Your Honor, that's from Page 29 of P340.

THE COURT: Very well.

BY MR. WILCOX:

Q. Let's shift gears again and talk about what you understand science is.

MR. THOMPSON: Objection, Your Honor. There's no foundation that he is an expert in science.

THE COURT: Well, let's have a question, and then we'll see what the point of the inquiry is.

MR. WILCOX: Specifically, I want to focus on the natural sciences.

BY MR. WILCOX:

Q. What is your understanding of science?

A. I might just say --

MR. THOMPSON: Objection, Your Honor. He is not a scientist, nor is he a philosopher of science, nor is he a historian of science. And we are now getting into the field of Professor Haught telling us what's science. His only purpose here was to talk about religion and its impact on the intelligent design theory.

THE COURT: Are you saying it's outside of the four corners of his report?

MR. THOMPSON: I can't say that because I haven't --

THE COURT: Well, that's what the objection has to be, I think. And if it's within his report and you had notice and you stipulated as to his

credentials, then I think he's going to be able to testify to it. Now, if you want to look at it, I'll give you a moment to do that.

MR. THOMPSON: Thank you, Your Honor.

THE COURT: I don't want to do it under duress, so let's take a moment and have you take a look and see if you want to base an objection on the report. And if there is an objection, I'm going to need a copy of the report or be pointed to the exhibit number so that I have it.

MR. THOMPSON: I saw a comment about science, Your Honor, on the report, so I'll withdraw my objection.

THE COURT: You certainly have an objection if it goes beyond that. Then I'll consider the objection with regard to that extent.

MR. THOMPSON: Thank you.

THE COURT: And you may proceed. You probably should restate, I guess, the question. Do you want it read back, or do you want to restate it, Counsel?

MR. WILCOX: I'll restate it.

THE COURT: All right.

BY MR. WILCOX:

Q. Focusing on natural science, what is

science?

A. Science is a mode of inquiry that looks to understand natural phenomena by looking for their natural causes, efficient and material causes. It does this by first gathering data observationally or empirically. Then it organizes this data into the form of hypotheses or theories. And then, thirdly, it continually tests the authenticity of these hypotheses and theories against new data that might come in and perhaps occasionally bring about the revision of the hypothesis or theory.

Q. You said that science seeks to understand the natural world through natural explanations. Is that important?

A. Yes, that's critical. The science, by definition, limits itself self-consciously, methodologically, to natural explanations. And that means that anything like a supernatural reality or transcendent reality, science is simply not wired to pick up any signals of it, and therefore any reference to the supernatural simply cannot be part of scientific discourse. And this is the way that science carries on to our present day.

Q. Would that mean this is the way modern science is conducted?

A. Modern science we date from roughly the end of the 16th to the 17th Century, in that period of time. And it was at that time that the great figurists of modern science, almost all of whom were deeply religious men themselves, decided self-consciously that this new mode of inquiry would not appeal to anything that's not natural, would not appeal to things like value, importance, divine causation, or even anything like intelligent causation.

These are not scientific categories of explanation. And ever since the 16th and 17th Century, modern science, as it's called, leaves out anything that has to do with theological or ultimate explanation.

Q. Who are some of the leading figures in the development of modern science?

A. Well, we can go back to Copernicus. And, of course, the figure that for me stands out is Galileo. And Galileo is important because he told his accusers, his ecclesiastical accusers, that we should never look for scientific information in Scripture, we should never look for scientific information in any theological source.

So he placed science on the foundation of

experience rather than authority or philosophical coherence. From thence forth to this day, science is a discipline where testability is the criterion of its worth.

Q. Does this make science at odds with religion?

A. By no means. Science and religion, as I've written in all of my books, are dealing with two completely different or distinct realms. They can be related, science and religion, but, first of all, they have to be distinguished. The medieval philosopher said, we distinguish in order to relate. And when we have a failure to distinguish science from religion, then confusion will follow.

So science deals with questions relating to natural causes, to efficient and material causes, if you want to use Aristotelian language. Religion and theology deal with questions about ultimate meaning and ultimate purpose. To put it very simply, science deals with causes, religion deals with meanings. Science asks "how" questions, religion asks "why" questions.

And it's because they're doing different things that they cannot logically stand in a competitive relationship with each other any more

than, say, a baseball game or a baseball player or a good move in baseball can conflict with a good move in chess. They're different games, if you want to use that analogy, playing by different rules.

Q. You've used another analogy in discussions with me that might be illuminating. This is the boiling water analogy. Could you give us that?

A. Yes. I think most of the issues in science and religion discussions, most of the confusion that occurs happens because we fail to distinguish different levels of explanation. And so what I advocate is layered or -- layered explanation or explanatory pluralism, according to which almost every phenomenon in our experience can be explained at a plurality of levels.

And a simple example would be a teapot. Suppose a teapot is boiling on your stove and someone comes into the room and says, explain to me why that's boiling. Well, one explanation would be it's boiling because the water molecules are moving around excitedly and the liquid state is being transformed into gas.

But at the same time you could just as easily have answered that question by saying, it's boiling because my wife turned the gas on. Or you

could also answer that same question by saying it's boiling because I want tea.

All three answers are right, but they don't conflict with each other because they're working at different levels. Science works at one level of investigation, religion at another. And it would be a mistake to say that the teapot is boiling because I turned the gas on rather than because the molecules are moving around. It would be a mistake to say the teapot is boiling because of molecular movement rather than because I want tea. No, you can have a plurality of levels of explanation. But the problems occur when one assumes that there's only one level.

And if I could apply this analogy to the present case, it seems to me that the intelligent design proponents are assuming that there's only one authoritative level of inquiry, namely the scientific, which is, of course, a very authoritative way of looking at things. And they're trying to ram their ultimate kind of explanation, intelligent design, into that level of explanation, which is culturally very authoritative today, namely the scientific.

And for that reason, science, scientists justifiably object because implicitly they're accepting what I'm calling this explanatory pluralism

or layered explanation where you don't bring in "I want tea" while you're studying the molecular movement in the kettle. So it's a logical confusion that we have going here.

Q. I think you may have already explained this, but just to be sure we see how it connects, one hears it said that it's important to, quote, teach the controversy, unquote. Do you agree with that?

A. Well, there really is no controversy between evolutionary biology and intelligent design because intelligent design simply is not a scientific idea. To come back to my analogy, it simply doesn't fall on the same level of inquiry.

But if there is a controversy at all, it's a controversy between two groups of people, scientists who rightly demand that intelligent design be excluded from scientific inquiry and intelligent design proponents who want it to be part of scientific inquiry.

And I also think that it's certainly appropriate in high school classes or wherever for people to talk about the controversy. To talk about what's going on at this trial, for example, would be a good topic for a civics class or a social science class or a cultural history class or something like

that.

But certainly there is no controversy, logically speaking, between intelligent design and evolutionary biology because intelligent design, just to repeat, is simply not a scientific idea.

Q. Does that mean intelligent design doesn't belong in a biology class?

A. Yes.

Q. In your report, you refer to the logical and rhetorical respect in which intelligent design is revealed as religious. Could you --

A. Yes. By "rhetorical," I mean persuasive. I think what I see happening is intelligent design proponents are trying to persuade students and the public that intelligent design is something that should be part of scientific discourse.

But rhetoric is not necessarily logical, and the whole foundation of that rhetoric is a logical confusion or alloy of proximate explanations with ultimate explanations, and that's what makes the rhetoric suspicious.

Q. You've said several times that you regard intelligent design as being religious or rooted in religion. Is intelligent design reflective of any particular religion?

A. I see it, at least as it's being used in this discussion, as reflective of the old natural theology tradition of classic Christianity with its postulation of an ultimate transcendent, all good, beneficent, all powerful creator God.

Q. You have called intelligent design appalling theology. Can you explain that?

A. Well, I think most people will instinctively identify the intelligent designer with the God of theism, but all the great theologians -- there are theologians that I consider great, people like Karl Barth, Paul Tillich, Langdon Gilkey, Carl Rahner -- would see what's going on in the intelligent design proposal, from a theological point of view, is the attempt to bring the ultimate and the infinite down in a belittling way into the continuum of natural causes as one finite cause among others.

And anytime, from a theological point of view, you try to have the infinite become squeezed into the category of the finite, that's known as idolatry. So it's religiously, as well as theologically, offensive to what I consider the best theologians, for example, of the 20th Century.

Q. These theologians you've just named, are they Catholic theologians like yourself?

A. Karl Barth is probably the most important Protestant theologian of the 20th Century. Paul Tillich is a close second or third. Carl Rahner is the most important Catholic theologian of the 20th Century. Langdon Gilkey, who taught at Georgetown with me, testified in the Arkansas creation trial in a way very similar to the ideas that I'm expressing here.

Q. Did Pope John Paul, II, express a view on evolution?

A. Yes. In 1996, he wrote a statement, an authoritative statement, saying that the Catholic thought is by no means opposed to evolutionary science. Indeed, he says that it seems now that the evidence for evolution is quite convincing, that evolution is more than a hypothesis, it's more than a guess. It's based in sound scientific research.

He only cautioned that we should not associate the philosophy of materialism, which I was talking about earlier, with evolutionary science, we should keep them distinct, which is, of course, from my point of view theologically, very, very sound advice.

Q. Is the materialist world-view a scientific conclusion?

A. No, materialism is a belief system, no less a belief system than is intelligent design. And as such, it has absolutely no place in the classroom, and teachers of evolution should not lead their students craftily or explicitly to have to embrace -- to feel that they have to embrace a materialistic world-view in order to make sense of evolution.

Evolutionary science can be disengaged from ideologies of all sorts, and that's the way evolution should be taught. So materialism, to answer your question, has absolutely no place in the classroom.

Q. You concluded your report with an observation that if a child of yours were attending a school where the teachers or administrators propose that students should consider intelligent design as an alternative to evolution, you would be offended religiously, as well as intellectually. Could you explain that?

A. Yes. Let me talk first about intellectually. What I mean by that is that I would want a child of mine, in a science class, to really feel and experience the adventure of open-ended scientific discovery, the sense that there's an exhilarating horizon of new discovery up ahead and that the world is open to endless and indefinite

scientific scrutiny and inquiry. I think that adventure is extremely important educationally, pedagogically.

But the moment you bring in a category like intelligent design into scientific discourse, it functions, it seems to me, as a science stopper. In a sense, it can give the child the impression, student the impression, that, well, why should I bother exploring in detail what's going on in life if it's all going to come down to an intelligent designer did it? So it kind of suppresses, it suffocates, I think, the scientific spirit intellectually.

Theologically, I think it's inevitable that a student or certainly a child of mine -- and I think this is true of most students in our culture -- when they hear this term "master intelligence" or "intelligent designer" are instinctively going to identify this with the God of their religious education.

But, again, from a theological point of view, to me, this is way too small a God, at least as far as the religious education of my children would be concerned. The God of intelligent design seems to be -- or gives the impression to a religiously sensitive kid or student of being a kind of tinkerer

or meddler who makes ad hoc adjustments to the creation, whereas what I would want a child of mine to think of when he or she thinks of God is something much more generous, much more expansive, a God who can make a universe which is, from the start, resourceful enough to unfold from within itself in a natural way all the extravagant beauty and evolutionary diversity that, in fact, has happened.

To put it very simply, a God who is able to make a universe that can somehow make itself is much more impressive religiously than a God who has to keep tinkering with the creation. So both intellectually and religiously I find it extremely problematic, intelligent design.

MR. WILCOX: Thank you, sir. No further questions.

THE COURT: All right. Thank you, Mr. Wilcox. Mr. Thompson, cross-examine.

MR. THOMPSON: Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. THOMPSON:

Q. Good afternoon, Professor Haught.

A. Good afternoon.

Q. You remember me?

A. Yes, I do.

Q. My name is Richard Thompson. I took your deposition several months ago.

A. Yes.

Q. This year. Now, one of the first things you said, Professor Haught, was that intelligent design is an old, an old theory, an old doctrine. Is that true?

A. I didn't put it in exactly those terms. I said its --

Q. What were the terms you used?

A. I said that its foundation in history is the natural theology tradition that's been part of Christianity and Christian thought for centuries.

Q. Well, we could also trace evolution to antiquity, can we not?

A. Evolution, as a scientific idea, is something that's relatively recent. Evolution as a fact goes back 13.7 billion years.

Q. I'm talking about people 1500 years ago that were postulating evolution as a means that life could have evolved.

A. If it was that long ago, it could not possibly have been a scientific idea. There were ancient philosophers like Heroclides, for example, who complained that things are constantly in motion. And if you want to call evolution that, then yes, but it's

not a scientific idea.

Q. What about St. Augustine, didn't he postulate that?

A. St. Augustine had the idea that the universe has been seeded with what he called seminis ratsio nales, rational principles, that over the course of time can unfold very much in the way of the more generous theology that I was talking about at the end of my testimony.

Q. So merely because you trace a particular idea to antiquity or to old tradition does not in and of itself make that idea invalid, does it?

A. Well, if it's science that you're talking about, then we have to go back to the 17th Century and look at the methods that science was using and that scientists still use. And that's really what's distinctive about contemporary evolutionary theory, that it employs a scientific method which Augustine did not have.

Q. Please listen to my question. I didn't talk about scientific theory, I talked about an idea. Now respond to it with reference to an idea rather than a scientific theory.

MR. WILCOX: Request that it be restated in its entirety then, Your Honor, the court reporter,

please.

THE COURT: If you would read back the question, please.

(Previous question read back.)

THE WITNESS: No, but one has to be careful of what's called genetic fallacy in logic. That's the fallacy that tries to understand any phenomenon in terms of how it originated.

For example, you could say that astronomy originated in astrology and that chemistry originated in alchemy. But you can't evaluate, you can't reduce the present understanding of chemistry, for example, to what the alchemists were talking about.

BY MR. THOMPSON:

Q. So your answer to my question was no. Correct?

A. Would you repeat the question? It was quite --

Q. It was in this vein. Just because a particular idea is old does not make that particular idea invalid, does it?

A. No, no.

Q. Pardon me?

A. No.

Q. And just because an idea -- excuse me, just

because a scientific theory is based on the religious motivations of its proponent does not make that theory, in and of itself, invalid?

A. No.

Q. And just because a scientific theory is propounded by an individual who happens to belong to a particular faith does not make that scientific theory invalid, does it?

A. No.

Q. And when you talk about genetic fallacy, it would be a fallacy to claim -- a genetic fallacy to claim that a particular theory is invalid because it comes from a particular religious person. Isn't that correct?

A. That's correct.

Q. Now, would you agree with this statement: It is not helpful, however, simply to dismiss intelligent design theory, IDT, as a product of ignorance mixed with narrow religious biases? Would you agree with that statement?

A. Yes. That's not enough of a foundation to dismiss it.

Q. Would you agree with this statement: The advocates of intelligent design theory are no less intelligent than their Darwinian and theological

adversaries? Would you agree with that statement?

A. Yes, I agree with that.

Q. And would you agree with this statement: They are often themselves skilled and highly educated physicists, chemists, mathematicians, or biochemists? Would you agree with that statement?

A. I do agree.

Q. They are neither stupid nor insane. Will you agree with that statement?

A. Yes.

Q. Clearly, the current dispute between biologists and intelligent design theory is not a matter of who has the highest IQ. Do you agree with that statement?

A. I agree with that.

Q. I hope you agree with that. I was reading from your book. You slightly mentioned Professor Michael Behe.

A. Yes.

Q. And you know him at least through his writings, do you not?

A. Yes, and I know him personally.

Q. Okay. And he is author of the book *Darwin's Black Box*?

A. Yes.

Q. Do you consider him a credible scientist?

A. As far as I can tell. I'm not one of his scientific peers, so I can't make that judgment. But it seems to me that he's a competent scientist.

Q. Well, have you read *Darwin's Black Box*?

A. Yes, I have.

Q. Okay. Could you just give me your view of what it entails? What is *Darwin's Black Box* about?

A. It's an attempt to argue that Darwin's theory depends upon gradual step-by-step change over time and that certain biochemical phenomena, subcellular mechanisms, could not have been selected evolutionarily unless they had already been cobbled together or put together so that all the parts are working simultaneously and in harmony and therefore could not have come about by Darwinian evolutionary processes. That's the fundamental thesis of the book.

Q. Do you agree that Professor Behe discusses the theory of intelligent design and his concept of irreducibly -- irreducible complexity utilizing scientific empirical evidence?

A. Empirical data that he has picked up as a scientist, as a biochemist, certainly is the material that he's trying to organize by way of the hypothesis of intelligent design. That doesn't mean it's

scientific, but that's what he's doing.

Q. Well, he has postulated a theory, is that correct, irreducible complexity?

A. I'm not sure whether he calls that a theory or just an idea. It's part of a component of his theory.

Q. Okay. A component. Now, I think you touched on a good point. Data is different than evidence, is it not?

A. Evidence and data, in the thinking of most scientists, I don't think there's -- there's a difference between hypothesis and data, yes.

Q. Now, will you agree --

A. But not evidence and data.

Q. Will you agree that in this book, Professor Behe describes in detail what he has observed about the bacteria flagellum?

A. His observations constitute material that he's working with in the book.

Q. Would you consider that empirical observation?

A. Well, part of it is. But as a member of a scientific community, he has to take a lot of things on fate by his reading of other scientists' work. No scientist sees everything, in other words.

Q. I'm talking about the particular biological system, the bacteria flagellum. Is he looking at that bacteria flagellum through scientific instruments?

A. Yes.

Q. And he is describing the bacteria flagellum in specific terms, is he not?

A. He's describing it, yes. Explanation is different from describing, though.

Q. And he is also looking at other biological systems in that book, such as the blood clotting mechanism?

A. Yes.

Q. And he is describing in great detail the data that he sees through his instruments?

A. Yes.

Q. And as a result of the observations that he sees, he concludes that they are irreducibly complex. Is that correct?

A. Whether the data are sufficient of themselves to lead him to that notion of irreducible complexity or whether, perhaps, some a priori patterns of thought have also come to meet that data, that's a question in my mind, anyway.

Q. Well, please then give me your understanding of what you believe Michael Behe means by the phrase

"irreducible complexity."

A. Irreducible complexity refers to any complex entity which is composed of a number of components, the absence of any one of which would have made that entity dysfunctional and, from a point of view of evolutionary thinking, unable to be selected by nature for survival.

Q. And his conclusions contradict Darwin's explanation of complex systems having developed through natural selection. Is that correct?

A. The contradiction does not lie in observation, observation of the data, but in the different levels of explanation at which Darwin and Michael Behe are working.

If I could use the example of the three levels. I think when Behe introduces his notion of irreducible complexity and interprets that as the product of intelligent design, he's working at a different level of inquiry from that of which Darwin and other scientists were.

Q. Well, I assume you've read Darwin's *Origin of Species*?

A. I have never read the whole thing, just as I've never read the whole Bible.

Q. Maybe you've --

A. I've read most of it, let's put it that way.

Q. Maybe you are familiar with this particular paragraph that Darwin wrote in *Origin of Species*, and I quote, If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous successive slight modifications, my theory would absolutely break down, end of quote. Had you ever heard that challenge?

A. Yes, I have. And Michael Behe quotes that in every speech he gives.

Q. And so Michael Behe's experiments are directly addressing that particular challenge that was levied by Charles Darwin. Correct?

A. That's how Behe considers it, yes.

Q. And you don't?

A. Well, no, because there are other ways of explaining this so-called irreducible -- irreducibly complex entity, including Darwinian ways.

Q. Isn't that one of the controversies, though, in science?

A. It's a controversy between Michael Behe and most of the scientific community.

Q. So it is a scientific controversy?

A. Well, I pointed out earlier, when I was asked about do I consider this a controversy, that I

don't consider the notion of intelligent design, which is the ultimate explanatory category that Behe appeals to, to be a category within which you can have a real controversy, so no, it's not a controversy.

Q. Well, what I'm talking about is the complexity of the -- let's say the bacteria flagellum which Michael Behe says is irreducibly complex versus other scientists who say it is not irreducibly complex. That's a scientific controversy. Correct?

A. Okay, yes.

Q. Okay. And so it is being debated in the scientific community. Correct?

A. It's being debated between Michael Behe and maybe a handful of others and then 99 percent of the scientific community on the other side.

Q. Well, you know, just because a particular theory happens to be in the minority does not make that an invalid theory, does it?

A. No, it doesn't.

Q. In fact, many of the great theories we have today started out as minority theories. Isn't that correct?

A. If they were scientific theories to begin with, then they had some chance of survival. If they're not scientific theories to begin with, then

they don't have any chance in principle of survival in scientific discourse.

Q. Well, I didn't ask about the survival of theories, but I said many scientific theories that we hold today started out as minority positions. Isn't that correct?

A. Yes.

Q. And they developed a majority position once this debate between scientists took place and empirical data led the consensus of the community to one side or the other. Is that correct?

A. Testability is the criteria.

Q. Right. And so actually, Michael Behe's concept of irreducible complexity is testable. Isn't that correct?

A. I don't know.

Q. Well, are you aware of the argumentation going back and forth between Professor Behe and Professor Ken Miller about this particular topic?

A. Yes, I am.

Q. And Ken Miller says, well, we can explain it -- we can explain this irreducible complex system through natural selection.

A. Yes.

Q. And Professor Behe says, no, you can't.

Correct?

A. Yes. And I take the side of Miller there. Incidentally, if I could just comment, it's not just a matter of evolution or intelligent design involved in bringing about complexity, there are also physical processes which are not often mentioned in this discussion, such as the self-organizing properties of matter itself that we are just now discovering scientifically, and they could be a major factor in bringing about what Behe calls irreducible complexity in a purely natural way.

Q. I was going to raise that at some point. Is that a theory that Stuart Kauffman --

A. Stuart Kauffman.

Q. -- is advancing?

A. Among others, yes.

Q. Okay. And you use the phrase "self-organizing."

A. That's the expression that scientists use. It's a metaphor.

Q. Well, to me, self-organizing means some intelligence is involved.

A. These are called autopoietic, to be more precise. That is, they're self-making processes. But all of the -- or many of the concepts we use in

science are metaphorical. The criterion is not the word, the language, but the measurability of what's going on.

Q. So when you're saying "self-making," does that mean duplicating?

A. No, not at all.

Q. Self-duplicating?

A. No. It's simply that we're finding out things that we didn't know scientifically centuries ago or even early in the 20th Century, that matter, that matter is much more resourceful and much more spontaneously self-organizing than we had ever thought, because we had had a wrong impression of what matter is going back to the beginning of the modern age.

Q. Well, could it be that this theory of self-organizing will ultimately lead to a discovery that actually matter does have some sort of intelligence?

A. That certainly won't be a scientific idea, because, as I said earlier, the category of intelligence is simply not part of the explanatory arsenal of scientific discourse.

Q. Are you saying intelligence is outside of the natural sphere?

A. I did not say that at all. Intelligence is just as much part of nature as rats and radishes.

Q. So that intelligence in a particular matter can ultimately be found. Correct?

A. No.

Q. Well, science has not explored and explained everything in the universe, has it?

A. Intelligence is related to the complexification of the central nervous system of primates and humans. It's not something that you attribute to individual monads, individual atoms or molecules. It requires a complex patterning in order for it to emerge as an emergent property of nature.

Q. By the way, you referred to some pages of *Pandas and People*. How many pages did you read?

A. I have no idea. I have perused the whole book, but I only read selectively from passages that I think had relevance to this particular case.

Q. Passages that your attorney pointed you to?

A. No. During my deposition, I had not -- I mentioned to you that I had not read it, but since then I have read -- paged through it, I should say. But I have not read every word by any means.

Q. I mean, I think your evaluation of that book was that it was not very sophisticated --

A. It still is.

Q. -- at the deposition. Is that correct?

A. Yes.

Q. I want to go to a couple of comments you made about the creationism versus intelligent design theory. Isn't it true that a creationist is a term used to describe individuals who would interpret creation stories using the Bible in its literary sense?

A. Literary or literal?

Q. Literal, excuse me.

A. Yes, creationists take the -- when I say "literal," though, I mean that they try to read into it something that's scientifically accurate.

Q. So they're focused on the Bible. Is that correct?

A. They are, but as products of the modern scientific age, they tend to take scientific assumptions to them when they read the text.

Q. And there's a difference between creationist and creationism, correct, or is there?

A. Between a creationist --

Q. Creationist and creationism. Is there a difference in your mind?

A. Well, a creationist is a person.

Creationism is an idea.

Q. And creationism is an interpretation of nature which takes the biblical narrative of creation and the sequence of days involved in the creation story corresponding to the Bible literally and factually and then come to conclusions based upon their view of the facts in the creation story. That's pretty compound.

A. Yes.

Q. If you can't understand it, I'll try to repeat it again. Creationism is the interpretation of nature?

A. It's a theological interpretation of nature.

Q. Which takes the biblical narrative of creation?

A. Narrative or narratives?

Q. Narrative.

A. Because there are several narratives.

Q. Well, I'm talking about the Genesis -- okay, we'll stay with Genesis.

A. Within Genesis there are two creation stories.

Q. And then take that story or those two stories, however you want to address it, and they take it literally and factually and then come to a

conclusion about creation.

A. Yes.

Q. Intelligent design is different than creationism, is it not?

A. Yes, in the same sense that, say, an orange is different from a naval orange.

Q. Well, I'm going to go back to your deposition, and you were pretty clear that there was a difference, were you not, in your deposition?

A. Yeah, similar to the one that I just analogized.

Q. You basically, early on -- I don't want to test your memory. I'll show you the deposition. But early on one of the first things you said was you disagreed with Barbara Forrest and Pennock as to the way they tied together creationism and intelligent design?

A. Yes, from the point of view of strict logical precision, because not all intelligent design proponents are biblically literalists. I would want to make them distinct from creationists logically speaking. But as far as the substance of this trial is concerned, there is really no major difference.

Q. Well, I'm asking the questions not just focused on this trial, but focused on the outside

world as to what creationism is and what intelligent design is. Okay?

A. Yes.

Q. And so there is a difference between creationism and intelligent design, is there not?

A. Yeah, but when you say "difference," that's not the same thing as to say "opposite."

Q. Correct, correct. But there is a difference, is there not?

A. Yes, there's a subtle difference.

Q. Did you ever say there was a subtle difference before?

A. I don't know. I'm sure I've said to it my students.

Q. Does intelligent design have to focus on the biblical stories of creationism -- of creation, excuse me?

A. Not necessarily.

Q. But creationism does. Correct?

A. Creationists take the biblical story or stories literally, or attempt to do so.

Q. Well, on previous occasions prior to this trial, you actually accused Robert Pennock of misleading the public when he conflated creationism with intelligent design theory, did you not?

A. Yes, I said that.

Q. And what does "conflated" mean?

A. To confuse or to alloy, to bring together.

Q. To blend. Right?

A. To fuse or blend.

Q. To blend?

A. Yeah.

Q. Let me read to you and ask you if this is your testimony today. And I quote from *Deeper Than Darwin*, Page 125. "The only book on his list to which Cruze gives unqualified approval is Robert Pennock's *Tower of Babel*, an important critique of anti-Darwinism, but one that I believe misleadingly conflates creationism with intelligent design theory, even though Cruze himself acknowledges that IDT defenders like William Dembski and Michael Behe are not Bible literalists."

A. Yes.

Q. Is that what you wrote?

A. Yes, it is.

Q. Is that what you stand by today?

A. Yes, I do.

Q. Okay. So it is wrong for the Court to get an impression that creationism and intelligent design are the same thing?

A. They're not exactly the same thing, but on the issues that really matter, they both, as I said earlier, are trying to bring an ultimate explanation into the category of proximate explanations. So substantively, they are identical as far as what is really important in this particular case.

Q. Well, you're not the legal expert, are you?

A. No.

Q. Okay. So it's up to the Court to decide what is legally important. But in your testimony today, you will testify that there is a difference between creationism and intelligent design, will you not?

A. There's a difference, but not necessarily an opposition.

Q. They're not the same thing, are they?

A. They're not exactly the same thing.

Q. In fact, in your deposition, you specifically stated that you would have emphasized the differences between creationism and intelligent design more so than -- when you were comparing Pennock's and Forrest's view, did you not?

A. Are those my words? Did I say I would emphasize the difference?

Q. That you would have more emphasized the

difference.

A. Those are my words?

Q. Well, I don't want to -- I don't want to misrepresent the record.

A. I would have done so more than Pennock does. That's what I'm saying.

Q. What is that?

A. I would have emphasized the difference more than, say, Professor Pennock does.

Q. And you accuse Professor Pennock of misleading the public because he didn't. Correct?

A. It was an ingenuous thing on his part. I mean I -- it was sort of an aside that I mentioned. I was not making that a major point.

Q. Well, you used that word "misleading." Correct?

A. Perhaps I -- is that --

Q. That was the word you used "misleading."

A. I'll take your word for it.

Q. And it was in your book. Correct?

A. Yes.

Q. I want to talk about genes for a while, g-e-n-e-s. It's true that Darwinians talk about genes having a mind-like character of survival. Isn't that correct?

A. They use that kind of imagery as a popular way of presenting their ideas, yes.

Q. Well, isn't --

A. Some of them do.

Q. Well, isn't it true that --

A. I'm thinking of Richard Dawkins in particular.

Q. Isn't it true that this great dispute over the theory of intelligent design -- that despite this great dispute over intelligent design, Darwinians are postulating matter that has a mind of its own? Isn't that true?

A. Sometimes their materialist way of looking at things leads them to that way of expression.

Q. You think it's just a form of expression?

A. By some. This is not by any means a general judgment. This is something I find with followers of Richard Dawkins.

Q. Well, the question I asked you, do you feel that this idea of survival, this characteristic of survival that Darwinists use is merely a form of expression?

MR. WILCOX: Objection, Your Honor. He's made it plain that he's referring to some Darwinists, not all Darwinists, as the question implies.

THE COURT: Well, the objection is noted for the record. I don't think it's necessary to sustain or to overrule the objection. It's noted. We can move on.

BY MR. THOMPSON:

Q. Let me put the question in another way, Professor. There are Darwinists who believe that genes have mind-like characteristics of survival?

A. No, they don't believe that literally.

Q. And my next question is, you just think that this is a literary license that they take to use human characteristics?

A. Yes. If you press any one of them, they would say that they don't mean it literally.

Q. Let me read from your book *Deeper Than Darwin*, Page 115. Quote, If we could be assured that the idea of genes striving to survive was simply a convenient way of speaking and one not to be taken too literally, then we might have reason to be less concerned about this dramatic displacement. However, the new Darwinian projection of subjectivity into our genes is more than an innocent literary device, end quote. Is that what you wrote in your book?

A. Yes, but at that point I wasn't talking about Darwinism, I was talking about certain

materialists' interpretations of Darwinism. The point of that whole book, just to put it in context, is to criticize not evolution and not neo-Darwinism, not Darwinism, but materialists' interpretations of Darwinism.

Q. Well, materialists are Darwinians. Right? They're a group of Darwinians?

A. But Darwinism in no way logically entails materialism. This is just by accident that some materialists are Darwinians and vice versa.

Q. In fact, you go to great lengths to take Darwinists to task because they are materialists, do you not?

A. Materialist Darwinists to task, not Darwinists.

Q. And some of the most prominent Darwinists are materialists. Correct?

A. That's true.

Q. Richard Dawkins being one of them?

A. Richard Dawkins.

Q. Do you know who Matt Ridley is?

A. Yes.

Q. And you wrote about him in your book *Deeper Than Darwin*?

A. Yes.

Q. Let me quote from your book, Page 116, and ask you if this is still a true statement. Quote, It is a mix of cooperation and competition among striving and achieving genes that, accordingly to Ridley, accounts for the evolutionary invention of gender-based behavior. Sex, he says, is the outcome of genes devising strategies to avoid their demise at the hand of parasites, end quote. Doesn't that sound like intelligence, as well?

A. Again, Ridley, especially, would want to make it clear that he is not taking the striving as something that's literal. However, I think there's a way in which Ridley has himself at times conflated Darwinian ideas with materialist ideas, and that's what I'm criticizing, not the Darwinism, but the materialist overtones or connotations of his modes of expression.

Q. Well, I understand you're taking not only intelligent design to task, but you're also taking a lot of Darwinians to task who have sort of gotten into the metaphysical world. Isn't that true?

A. Materialist.

Q. Materialist world?

A. Not Darwinians, but materialists.

Q. Okay. And in another section in your book,

Page 3, and I'm quoting again, quote -- this is you writing again -- But enlightened evolutionists caution us that religion and art are merely heart-warming fiction. Our genes, they claim, have created adaptive but essentially deceptive brains and emotions that spin seductive spiritual visions in order to make us think we are loved and cared for. But, in fact, it is all illusion. Darwin has allowed us at last to naturalize religion completely. You wrote that. Correct?

A. I was talking about --

Q. End quote.

A. That's not my position. I'm describing the position of materialist Darwinians.

Q. Correct, yes. And so again we have this idea that these genes are somehow creating -- with their deceptive brains are creating spiritual visions?

A. What the materialist Darwinians have to do, since they deny the existence of God, is to come back to the only kind of explanation that's available to them, and that's a Darwinian explanation. So that's another example of what I call refusal to accept layered explanation.

They, like the intelligent design people, share in common the conviction that there's only one

explanatory slot available. So if intelligent design doesn't fit it, then material processes do and vice versa. But I object to both approaches as not being layered in their understanding of things.

Q. So according to many prominent Darwinists, the philosophical message of Darwinism can't be disengaged from Darwin's science. Isn't that true?

A. That's exactly what Steven J. Gould said in several of his books.

Q. Okay. And he has made that statement, that one can't disengage Darwinism --

A. He hasn't put it in those explicit terms, but he as implied that Darwin comes along with a philosophical message of materialism. And that's why I object to Gould's whole approach, because he conflates science with ideology too much. Not always.

Q. So there is really a significant group of Darwinian scientists who are actually getting into the physical -- excuse me, the metaphysical world. Correct?

A. Yes, yes.

Q. And so --

A. Unconsciously most of the time, but they're doing it, yes.

Q. Yes. And so you would have the same kind of

criticism of them as you would of your view of intelligent design, would you not?

A. Yes. As I expressed to Mr. Wilcox, I would not want a biology class to lead students toward a materialist's view of life, either.

Q. Well, according to Gould, the message of Darwinian science is that life has no purpose. Is that a scientific claim?

A. No. And I think if you ask Gould, he would have to admit that, also.

Q. Okay. Daniel Dennett, do you know who he is?

A. Yes.

Q. He's a philosopher. Is that right?

A. He's a philosopher at Tufts University.

Q. Right. And he claims that Darwin is incompatible with religious beliefs?

A. Yes. He's a philosopher, not a scientist. That's a philosophical belief.

Q. Well, what about E. O. Wilson, who is a biologist at Harvard, he puts Darwin's science in direct competition with religion, does he not?

A. Yes, because he is one of these people who unconsciously conflates his very good evolutionary science with a very suspect metaphysical belief

system. Not always, but at times.

Q. Now, the *Origin of Species* written by Charles Darwin, I believe it was 1859, something like that?

A. It was published in 1859.

Q. Published in 1859. Throughout his book, he discusses intelligent design, does he not?

A. He does refer to it, yes.

Q. Throughout the book?

A. He doesn't propose it, he doesn't promote it, but he does discuss it.

Q. So he makes reference to design --

A. Makes reference to it, yes.

Q. -- throughout the book?

A. Yes.

Q. Not necessarily concluding that that's an accurate theory?

A. Well, and I just might add that he always understands intelligent design in terms of the way *Natural Theology* of William Paley did, namely as a theistic designer, creator.

Q. And --

A. And he looks for an alternative. The whole point of his book was to say that we don't need to explain what goes on in evolution by appealing to this

theological notion.

Q. Now, just because he mentions design in the book, would you keep it out of science classes?

A. The *Origin of Species*? By no means.

Q. Okay.

A. But I just would not present it as an alternative to evolutionary theory, and Darwin didn't either. Certainly I would want students to read Darwin, yes.

Q. So just because a particular book mentions design does not mean that you personally would advocate removing it from a science classroom?

A. The concept -- yeah, I would not advocate that at all.

Q. Now, do you remember this famous phrase by Darwin in the last paragraph of his *Origin of Species*: There is grandeur in this view of life with its several powers having been originally breathed by the Creator, capital C, by the Creator into a few forms or into one? Have you ever heard that?

A. I have, and I've also heard historians say that later Darwin sincerely regretted that last paragraph.

Q. Well, if that was in his original volume, *Origin of Species*, and he mentioned the Creator with a

capital C and actually postulated that the original form of life was breathed into by the Creator, would that keep the origin of Darwin -- Darwin's *Origin of Species* outside the science classroom?

A. Darwin would never have understood that last paragraph as a scientific statement. So what's at issue is what is truly scientific and what is not. And a good science class will help students distinguish between what is ideology, what is belief, and what is scientific method.

Q. Well, the students that get Darwin's *Origin of Species* aren't going to be able to talk to Darwin. So with that language in Darwin's *Origin of Species* referring to the Creator, would that cause you to advocate removal of the *Origin of Species* from the classroom?

A. No. In fact, whenever a science teacher tries to define what is peculiarly distinct about science, he or she has to refer to nonscientific kind of discourse as an example by way of contrast that will allow students to see what pure scientific method is about.

So, no, there's no reason not to mention nonscientific discourse when you're teaching science so that your students can come to more clarity as to

just what is distinct about science. So that would be a nice opportunity for a teacher to do that.

Q. Well, I wasn't talking about scientific discourse, I was talking about the book. Would the fact that the Creator was mentioned in Darwin's *Origin of Species*, would that cause you to remove the book from the classroom?

A. No.

Q. Going back to *Darwin's Black Box* by Professor Behe, you actually provide that book to your students in your religion and science class, do you not?

A. Yes, I've had my students read either excerpts from it or essays by Behe that recapitulate the main argument of the book, yes.

Q. Okay. And you have stated publicly, and I quote, I make sure my students become familiar with its arguments and suspect that discussion of it has enriched many science and religion courses in the last few years. Do you remember making that statement, public statement?

A. Yes. It helps by way of contrast, once again, to be able to focus on what is good science and what is not good science.

Q. So referring to *Darwin's Black Box*,

regardless of whether you believe in the theory or not, enriches students' understanding. Correct?

A. Yes. I'm talking about a theology class, not a science class. In a theology class, we talk about a lot of things that you don't necessarily focus on in science class.

Q. But there are a lot of different books you could use to do that. You don't have to use *Darwin's Black Box* to do that. Correct?

A. Oh, sure, yes. In fact, I didn't use it until it was published.

Q. Until when? Now, you had three definitions of religion in your reports. Could you give me the first one again? And I'm not trying to test your memory. Do you have a copy of your report in front of you, your expert report?

A. I can tell you. In the broadest sense, Paul Tillich, for example, says we can understand religion as devotion to whatever you consider to be of ultimate concern, and that can be anything. It can even be science, for example. There are some scientists who make science their ultimate, and that's religion in a very broad sense of the term.

Q. And that's called scientism?

A. Scientism is the belief that science is the

only valid way to truth, yes.

Q. Now, under that definition, would atheism be considered a religion?

A. Not atheism as such, but probably every atheist has something that functions as an ultimate -- for example, materialism is a form of atheism in which matter constitutes the ultimate foundation and ground of all being.

Q. Well, could you give me your definition of atheism? I should have asked that first. What is your definition of atheism?

A. An atheist is someone who denies the existence of the God of theism.

Q. And that would have some impact on that person's world-view, would it not?

A. Of course.

Q. And that was one of the aspects that you talked about in this general definition of religion, you know, world-view kind of definition?

A. Well, I don't know whether I would call atheism a world-view. No, it's not -- it's a negative term. It's a denial of a world-view. But in itself, atheism has to espouse some other ultimate for it to be a world-view. But in itself, the word "atheist" is simply a negative term. It's a denial of theism.

Q. If I don't believe in a God, if I don't believe in God as an all powerful being, then that could impact all kinds of decisions that I make, moral decisions, family decisions?

A. Yes, it sure could.

Q. Define "human secularism" for me.

A. Define what?

Q. Human secularism.

A. Human secularism? Is that a term that I've -- I don't recall ever using that term.

Q. Well, I don't think you used it, but as a theologian and a philosopher, are you familiar with the term?

A. I think you mean "secular humanism."

Q. Okay. Secular humanism. I'm sorry.

A. Secular humanism is a view that puts humanity, you might say, in the position of ultimate concern.

Q. And under your definition of religion, would secular humanism be a religion?

A. In that first sense of my three meanings, yes.

Q. Now, intelligent design is not a religion, is it?

A. Intelligent design is a category within a

religious perspective, to be logically precise.

Q. Well, is the intelligent design movement religion?

A. I would say that fundamentally it is, yes. It's in search of or it presumes a certain ultimate, namely an intelligent designer, and it has a whole set of ideas and a kind of quasi-theology to support that idea.

I would say, to be more precise, intelligent design is closer to what I would call theology than religion because intelligent design is a conceptual attempt to clarify the ultimate that's spontaneously believed in by a particular kind of religion.

MR. THOMPSON: Your Honor, may I approach the witness?

THE COURT: You may.

BY MR. THOMPSON:

Q. Professor Haught, I would like -- I've placed before you the deposition that was taken of you on June 1st, 2005. I'd like you to turn to Page 181.

A. Okay.

Q. And just to put it in context, I was asking you about certain characteristics of what a religion would be in the previous pages. And if you want to, you can read, you know, the pages before 181. And

then I was about to ask a question of you and I said, If you, and then you responded spontaneously. Would you read that out loud?

A. (Reading:) Incidentally, I don't characterize -- I never have characterized the intelligent design movement as a religion. All I've said is that the appeal to the notion of intelligent design is nonscientific and religious in nature. And that was the reason for my qualification. It's more theological than religious.

Q. What's the difference between religion and theological?

A. Religion is the spontaneous and some philosophers would say the naive pre-reflective involvement of people in a life committed to certain ultimates but not reflected upon.

Theology is a theoretical reflection upon what goes on in religion, and theology usually uses philosophical concepts in its attempt to articulate in a theoretical level what's going on in religion. That's why intelligent design is more theological than religious.

Q. The big bang theory is a scientific theory. Is that correct?

A. Yes.

Q. Does it have religious implications?

A. Yes. And I believe everything has religious implications.

Q. In fact, all scientific theory has religious implications?

A. I think so. Not everybody does, but I think it does, yes.

Q. In fact, the big bang theory was first postulated by a Belgian priest?

A. Well, he and several others, William di Sitter, Alexander Friedmann, and George Lemaiyre, yes.

Q. And Einstein thought that priest was a buffoon, did he not?

A. At first he did, but then he humbly asked pardon.

Q. Because at the time that this Belgian priest postulated the big bang theory, most of the scientific community felt that the universe had always existed?

A. I'm not sure that most of them. Certainly materialists among them, by definition, had thought of the universe as eternal.

Q. Well, did Albert Einstein think --

A. Yes, especially as a result of his exposure to the philosopher Baruch Spinoza, who was a pantheist and who believed that the universe is eternal and

necessary. And Einstein was very attracted to Spinoza's thoughts since he was a young man.

Q. And what about Fred Hoyle?

A. Fred Hoyle never really gave up his idea that the universe is somehow eternal.

Q. And who is Fred Hoyle?

A. Fred Hoyle was a British physicist who proposed what he thought to be the only conceivable alternative to the big bang hypothesis, and that was the hypothesis of a steady state, according to which the universe is eternal, but you can explain its expansion by virtue of the introduction of new hydrogen atoms in a certain unverifiable, undetectable way throughout the history of the universe, and that's how he explained the expansion of the universe.

Q. Switching over to another --

THE COURT: Let me just stop you for a second. We've been at it here for quite some time. If you think that you're -- and I don't want to cut off your question by any means, but if you think you're close to being finished, we can stay here. Otherwise, our reporter has been at it for some time, I would like to take a break.

MR. THOMPSON: Your Honor, it's probably more prudent to take a break. I'm not sure how long

I'm going to go. It depends on the witness.

THE COURT: All right. Let's take a relatively brief break, let's say no more than 15 minutes we'll break for. And we'll reconvene, and Mr. Wilcox, of course, may have some redirect at that point, as well. So we'll be in recess.

(Recess taken.)

THE COURT: All right, Mr. Thompson, back to you.

MR. THOMPSON: Thank you, Your Honor.

BY MR. THOMPSON:

Q. I just wanted to go back to William Dembski. You've mentioned him several times. Do you know anything about his background?

A. A little bit. I think he was a mathematician and then he went to Princeton to get a master's degree in theology.

Q. So that it is quite logical that at times, wearing his philosophical hat, he would wax eloquent philosophically. Isn't that correct?

A. Yes.

Q. And there are also particular treatises that he has written as a mathematician. Isn't that correct?

A. Yes. I have never read any of them.

Q. There is one that's entitled, The Design Inference. Are you familiar with that?

A. I've read parts of it years ago.

Q. And that was published by Cambridge University?

MR. WILCOX: Press.

MR. THOMPSON: Or Press, excuse me.

THE WITNESS: I don't remember it.

BY MR. THOMPSON:

Q. And do you know what William Dembski's view is mathematically on the theory of intelligent design?

A. The mathematics I don't know. I'm not a mathematician.

Q. Have you ever read about -- maybe not the book but read other articles about his idea that it is highly improbable for these complex structures to have intelligence even if you consider the earth four billion years old?

A. Yes.

Q. Okay. And he has done mathematical calculations to show it's virtually impossible for the complex structures that we have today to have developed based on natural selection. Isn't that true?

A. That's his view.

Q. Yes. But it's based on his background as a mathematician. Isn't that correct?

A. He uses mathematics in his reasoning, yes.

Q. Do you know what -- how would you define mind, m-i-n-d?

A. Mind? Mind is the capacity to experience, to ask questions about one's experience, and then to criticize the ideas that we come up with to explain our experience.

Q. Is mind a function of intelligence?

A. Well, there are different ways of understanding mind. You can understand it as a process or you can understand it as a concrete reality from which mental processes emerge.

Q. Is there a real distinction between the two that you just defined as far as being a part of mind?

A. Well, mind as a process unfolds in cognitional acts such as being attentive, being intelligent, being critical, and being responsible. Mind as the foundation of that, we call it the desire to know or you could call it the intellect.

Q. Both of those would require intelligence, though, the processing and the desire to know?

A. In order to explain their existence, you mean, the existence of mind?

Q. No, what mind is, the definition of mind.

A. They would entail what I would call intelligence, yes.

Q. Is mind a part of nature?

A. Yes, it is.

Q. Now, you wrote in this book that was referenced by your counsel, *Science and Religion*, you talked about -- and I hope I get this right -- strong anthro -- strong anthro --

A. Anthropic.

Q. Anthropic principle, SAP?

A. Yes.

Q. Would you define what you mean by that?

A. Strong anthropic principle maintains that the universe that we live in, the big bang universe that we live in, has been set up, as it were -- "structured" would be a better term -- from the very first microsecond of the universe's existence in such an exquisitely sensitive way that were any of the conditions and constants that prevailed at the time of the big bang absent, then neither life nor mind would ever have arisen.

Q. And that is a scientific speculation -- I don't want to call it a theory right now, but is it a scientific theory or is it something less than a

theory at this point?

A. It's not a scientific theory, it's a hare's breath from intelligent design argument.

Q. Are physicists discussing it?

A. Yes, they are, as philosophers --

Q. Credible physicists?

A. Yes. Physicists are more interested in the weak anthropic principle than the strong anthropic principle. The strong anthropic principle tendentiously moves toward the positing of a cosmic designer, whereas the weak anthropic principle is much less controversial. And that simply maintains that obviously the universe was set up for bringing about beings with minds because we're here.

Q. And do these physicists that belong -- that believe in the strong anthropic principle indicate that it requires the existence of a transcendent, orderly Providence with a capital P?

A. Some physicists jump to that conclusion as the theologians, but there are other physicists who do not make that conclusion. There are a wide variety of interpretations of the strong anthropic principle.

Q. And in your book, you indicate that this particular principle comes pretty close to the intelligent design theory?

A. In some interpretations, yes.

Q. Yes. But this is being discussed in the scientific world, is it not?

A. It's being discussed by scientists, but it's misleading to say it's being discussed necessarily as a scientific hypothesis. It is in some quarters, but not in others.

Q. Okay. And the basis of this is that mind basically developed from that big bang?

A. The basis of it is that the existence of mind depends physically upon the universe having certain properties.

Q. And these properties had to be, as you said, so elegant that complexity of our universe would not have occurred without that elegant mind or design. Is that correct?

A. To use the term "design" I think begs the question in a way, because the question is whether it's the consequence of design or whether it's the consequence of many, many, many universes, most of which would not be set up for bringing about consciousness. And the one that we live in, according to the multiverse theory of people like Martin Reese and many others, which is becoming an increasingly popular idea in science today, the existence of our

universe with the properties that give rise to life for many scientists -- and this is necessary for scientists to do as scientists -- can be explained naturalistically without appealing to supernatural design.

Q. And as you indicated, theologians are interested in this principle?

A. Yes. Theologically, it's quite appropriate. And I, myself, strongly suspect that given the -- what I consider to be given the existence of a God who cares that consciousness come about, it would not be surprising that the universe is so constructed as to allow that to come about. But, see, that's a theological jump, not a scientific --

Q. Right, I understand that. That's why I wanted to say that. But also, aside from the theologians' interest, scientists are interested in it. Correct?

A. Yes, but scientists qua scientists or scientists qua persons who are curious about ultimate questions? There's a distinction that you have to make.

Q. Scientists qua scientists. Physicists that are talking in terms of physics, the laws of physics.

A. Oh, yes, physicists are the ones who gave us

this new picture of the universe as endowed with the properties that are right for mind.

Q. And I don't recall where it's in the book, but I remember reading it, that you said if the universe was a trillionth off --

A. Yes.

Q. -- it would have collapsed on itself.

A. That's what Stephen Hawking says. Or he wouldn't put it that way. He would say if any of those values, like the expansion rate of the universe, the gravitational coupling constant, and other factors, ratio of electrons, proton mass, things like that, if those values had been off infinitesimally, then not only Hawking, but many, many astrophysicists agree that life would not have been able to evolve and mind would not have been able to evolve out of life.

Q. So would that be evidence, these physicists, the claims of these physicists, would that be evidence for a design?

A. It would be evidence for a very interesting fit between the physical conditions and parameters of the universe and the existence of mind. But that's not -- they would not use the term "design" in the sense of the product of some intelligence. That's for theology and philosophy to speculate about, not

science.

Q. Well, that's a self-imposed arbitrary line, is it not, that's for theologists to talk about versus physicists?

A. Well, if you're saying that science imposes arbitrary lines in order to distinguish itself from other kinds of inquiry -- I think, as I said earlier in my testimony, science is a self-consciously, self-limiting discipline that leaves out any explanation of things in terms of intelligence, God, miracles, so forth.

Q. Are you saying then that only those physicists who believe in the intelligent design theory of Behe and Dembski are holding this anthropic principle?

A. No, I would never say anything like that.

Q. Okay. So there are physicists who aren't involved in the religious implications of the principle that are actually studying the principle?

A. As scientists or as philosophers?

Q. As scientists.

A. There are many physicists who are studying the physical conditions that make life and mind possible.

Q. And, in fact, in your book you also say it

is such an infinitesimal chance that human beings were able to be created by this process, did you not?

A. Yes. Physicists themselves remark at what they call the remarkable precision with which the initial conditions and fundamental constants are given their mathematical values precisely such as to give rise to life and mind, but they don't explain how this precision came about. That's for theology and philosophy.

Q. Again, that's a self-imposed demarcation zone?

A. Well, in the sense that science deliberately distinguishes itself from theology and philosophy by limiting itself to efficient and material causal explanation.

Q. Are you telling me that if these physicists come with a theory that is accepted based on the evidence, that they would not be able to posit intelligent design because you say that's a theological question?

A. They would not, as scientists, use intelligent design as a scientific explanation.

Q. Based on the theory that we're talking about held by these physicists, they don't believe that this exquisite, elegant complex university that is

responsible for human beings on this small planet happened by accident, do they?

A. Many of them don't. They make that judgment, though, not as scientists but as philosophers and theologically-inquisitive people.

Q. And they basically posit the theory that at the moment of the big bang, all of the laws of nature had to be in place. Is that true?

A. That's not how they would put it. They would say that the conditions and constants that give rise eventually to life and mind had to have been in place, yes.

Q. Has Darwin's theory of evolution explained how that happened?

A. Darwin's theory of evolution talks about the origin of life, not the universe.

Q. And has any evolutionist talked about how that could have happened by natural selection?

A. Yeah, there are, in fact, among cosmologists, there are those who have a kind of Darwinian frame of mind, and they would explain the existence of our universe, life giving -- life producing mind producing universe, as a naturally selected to survive phenomenon out of a whole background of lives that are universes which would not

be able to give rise to life.

Q. And those scientists, I assume, believe in the multiple universes?

A. Yes, many of them do.

Q. Okay.

A. It's not so much belief, it's a scientific speculation.

Q. It's speculation, right. In fact, there is some lawyer that kind of developed that theory. Right?

A. A lawyer?

Q. A lawyer. Are you aware of that?

A. No.

Q. At least I read it in Time Magazine.

A. But I'm happy to hear that.

THE COURT: And, of course, you can't believe everything you read.

MR. THOMPSON: Thanks, Your Honor.

BY MR. THOMPSON:

Q. You know, we were talking about the idea that some -- that matter is self-organizing, Stuart Kauffman's theory.

A. Yes.

Q. Okay. There's another name for that. There's a name for that theory, right, the complexity

theory?

A. It's a combination of complexity theory, chaos theory, yes. Autopoietic processes.

Q. And Kauffman speculates that intelligence is an emergent property of matter.

A. Yes.

Q. Isn't that true?

A. Yes. And he's not alone.

Q. Okay. And that matter, as it becomes more complex, develops more intelligence. Isn't that true?

A. Yes. And that's very close to the Jesuit paleontologist Teilhard de Chardin's view that consciousness increases in the universe in direct proportion to the increase in ordered complexity of matter.

Q. And it's also close to the intelligent design theory, isn't it?

A. Not at all, because the way the scientists explain intelligence is by looking toward what is earlier and simpler in the process, whereas the way theology would interpret intelligence -- and I think it has every right to do so -- is in terms of final causes and divine causation, which is not detectable to scientific inquiry.

Q. But it's kind of astounding that matter

itself, as it gets more complex, would develop its own intelligence. Would that be a fair statement?

A. Yes. That it would become alive is also remarkable.

Q. Right. You indicated that theology is -- you indicated theology is one prong of intelligent design.

A. That's what William Dembski says.

Q. Okay. Do you know what the other prong is?

A. The other prong, I suppose, for Dembski would be a more empirical and mathematical inquiry into intelligent design.

Q. Now, we were talking about, you know, this idea that many Darwinists conflate the theory, the scientific theory, with the philosophy or the religious implications. Is that true?

A. Well, they do so not as Darwinists but as philosophers.

Q. Well, they think they're acting as scientists though. Right?

A. They do, sometimes they do, unfortunately.

Q. Can you give me the name of some of them?

A. I think that Richard Dawkins, E. O. Wilson, Stephen Jay Gould, they're scientists who carelessly, at times, conflate science with a materialist

ideology. For example, if you read Richard Dawkins, sometimes on the same page he switches back and forth three or four times between philosophical statements and scientific statements without pointing this out to the reader.

Q. That's a good point. Isn't it true that a lot of times writers on evolution switch back and forth in their -- the definition of evolution that they're using in the same paragraph?

A. That's the whole point of my book *Deeper Than Darwin*, to point out this possibility.

Q. Now, there's one part of evolution that you would call a historical science. Correct?

A. Yes.

Q. And then there's this other part that is, I don't know, neo-Darwinism that is going on right now?

A. Metric.

Q. And in the historical science of Darwin, really we can't prove whether he was right or wrong, can we?

A. What do you mean by "proof"? That's a word that has many meanings.

Q. Well, we don't know, based upon the data that we have, whether Darwin was right in his postulation of life starting from one or two cells and

developing through a series of macroevolution through natural selection?

A. We don't have present observational sensitivity or sense awareness of things that are no longer in the present, but you can make reasonable hypotheses. For example, nobody doubts that the Hawaiian Islands were brought about by volcanic action, most of which nobody ever saw but which nobody doubts takes place.

Similarly, evolutionists -- at least in principle, evolutionary science is, in principle, able to make reasonable conjectures -- or hypotheses, rather, about how certain events in the fossil record took place.

Q. We see the Hawaiian Islands, so we can at least now that they exist. We see fossil records, so we know that they exist. Will we ever see the first cell or couple of cells that Darwin postulates life began, from which life began?

A. Will we ever see them in the present?

Q. Yes.

A. No, by definition.

Q. In fact, this whole idea of man sharing common ancestors is up for debate. Is that correct?

A. I don't think so, no. The record of hominid

evolution is among the strongest that we have from what I've been told by evolutionary biologists.

Q. Have we ever found or identified our common ancestor?

A. Not precisely.

Q. We don't even have an idea who that common ancestor would be, do we?

A. I think we're getting closer and closer by studying genetics, especially, to being able to make more and more reasonable inferences.

Q. Well, genetics is not going to tell us who the common ancestor is, is it?

A. Genetics is telling us more and more about the story of evolution because as we read the human genome, we can see almost chapter by chapter how evolution came about. Genetics is now one of the strongest -- you might say strongest pieces of evidence for evolutionary science.

Q. Well, let me give you an analogy. I have some nuts and bolts. I take some nuts and bolts and make a car.

A. Yes.

Q. Okay? That's a car. Then I take some other nuts and bolts and make an airplane. They have the same parts, but does that mean that the airplane came

out of the car?

A. No.

Q. So that if there is a God, that God could use the same kind of genetic material making, you know, a monkey or an ape and making a human being. Isn't that a possibility?

A. It's a possibility. And God could also make a universe that makes itself.

Q. Correct. So that this idea that it's already definitely set as a scientific fact that we came from the same ancestors as the monkey or ape is conjecture at this point?

A. I wouldn't say -- I'm not a scientist, so I'm, perhaps, speaking out of turn here. But from what I've read, "conjecture" would be certainly the wrong term.

Q. Now, what is theology?

A. Theology is reflection upon religious experience which seeks to understand the point, the objective of what we call faith. We might even define theology as St. Anselm did as faith seeking understanding.

Q. Now, in theology -- excuse me. Does theology require the study of, say, a supernatural being?

A. Theology studies the divine as it's mediated through finite beings.

Q. So as a theologian, you are studying concepts of God in the Christian faith or in any one of the Abrahamic faiths?

A. Yes.

Q. Which? All of them?

A. Yes. I think all of them have something to teach each other, so a good theology would be inter-religious.

Q. And you're a -- I forgot what they call it, is it a process theologian?

A. I'm not a process theologian. People have called me that, but I've never identified myself as such. I use ideas from many, many different kinds of theology, including process theology.

Q. Do you consider yourself a Catholic theologian?

A. Yes, I do.

Q. Have you ever taken the mandatum?

A. No.

Q. Isn't that required by the church?

A. The local bishop has discretion about that, and, fortunately, Theodore McCarrick has decided not to exercise it, very prudently.

Q. What I have in front of me is the Catechism of the Catholic Church. Do you recognize at least the cover of it?

A. Yes.

Q. According to the Catechism of the -- the Catechism of the Catholic Church was developed by the heads of the Catholic Church. Is that correct?

A. It was supervised by, I guess, some office of the Vatican. I don't know which one.

Q. And it is an official teaching document of the church, is it not?

A. Yes. But official teaching documents have various grades of authority. Catechism would not be the highest.

Q. And you actually have a lot of problems with this book, do you not?

A. Well, the reason that the new Catechism was brought about was that people found the old Catechism was inadequate. And likewise, there are people today, including many theologians, who already find this Catechism inadequate, also.

Q. So your answer would be yes to my question?

A. Yes.

Q. Now, you also have what I would consider, and I'm not a theologian, but I would consider an

unusual concept of God. Would you agree with that?

A. What kind of concept?

Q. An unusual concept of God.

A. No, I thoroughly believe that my understanding of God is completely and thoroughly Christian.

Q. Do you believe God can be surprised?

A. I don't know.

Q. Didn't you say that in your deposition, God can be surprised?

A. It's possible.

Q. Well, if it's possible for you to have said that in a deposition --

A. It's possible that God can be surprised.

Q. Oh. Does God know everything?

A. Everything that can be known.

Q. What can't God know?

A. Things that can't be known.

Q. And what is that?

A. It's unable to be -- you can't specify it. It's in the region of the unknowable, so therefore the unspecifiable.

Q. So you put some limits on the ability of God to know everything?

A. No, I don't want to limit God.

Q. You believe that God started the universe and really doesn't know what's going to happen?

A. If you want me to get into the theology of this, I can. It's very complex, and it requires going back to some chapters in the history of theology where this question was debated between Dominicans and Jesuits to the point where the Pope told them both to keep still and stop talking about it. And for that reason, I don't think it's prudent for me to --

THE COURT: The logic there appeals to me.

MR. THOMPSON: I'll be very quick, Your Honor.

THE COURT: I thought I'd note that.

BY MR. THOMPSON:

Q. Do you believe in the virgin birth of Christ?

A. What do you mean by "the virgin birth of Christ"?

Q. The fact that Christ was born from the Virgin Mary.

A. You have to put this in context to make this a real question. The stories of virgin births were the ways in which ancient religious communities tried to get across to their followers the specialness of the one who is being born. And so the attempt to be

too literal about any of these teachings is, in my view, not to take them seriously. So that question is one that would lead only to a misunderstanding if I were to say yes or no.

Q. So isn't that a doctrine of the Catholic Church, virgin birth of Christ?

A. It's not in the creed. Well, yes, it is. But it's -- there are lots of doctrines in all religions that need to be interpreted in order to be taken seriously.

Q. Well, that's a pretty serious dogma of the church, is it not?

A. What the church said -- if you want to find out what the church said, read Leo the XIII's encyclical Providentissimus Deus published in 1893 in which he said Catholics should never look for scientific information in the biblical text. So if you're talking about the virgin birth as something that's scientifically true, Catholics, by instruction of Leo the XIII, do not have to go that way.

Q. And you choose not to go that way?

A. Right.

Q. What about Adam as the first man?

A. Even the Hebrew Bible uses the notion of Adam in the universal sense for mankind.

Q. Does the church believe that Adam was actually the first man?

A. The church believes in these ideas only in connection with the doctrine of original sin, and that means simply that all of us are born into a world that's pretty messed up and we are all contaminated by that and we need redemption from.

The key point of the whole virgin birth idea, Adam and Eve, is to emphasize, to make a place cognitionally to understand the meaning of what we call the Savior or theme of redemption.

Q. So they're just --

A. Everything is focussed in that way. So to ask atomistically questions like, do you believe in the virgin birth, do you believe in Adam and Eve, is to miss the whole point theologically.

Q. But the church believes that, does it not?

A. The church is primarily interested in communicating to people the salvific significance of the man Jesus. And throughout the ages it does this in many different ways, and sometimes it has to revive and revise catechisms in order to make that mission something that can be accomplished.

Q. What about Eve, do you believe there was a woman named Eve?

A. That's the same sort of question.

Q. So Adam and Eve to you are not individuals?

A. I don't look for scientific information. I don't look for scientifically factual information in a text which, by genre, fits in the category of what all biblical scholars today call myth rather than history.

Q. I didn't ask you for a scientific explanation. You're a theologian. As a matter of faith, do you believe --

A. You're asking a historical question, and the whole concept of history, as we understand it today, was in many ways fashioned by the scientific revolution with its concern for factual evidence. So history is not able to be disassociated from the whole scientific movement.

MR. THOMPSON: I've got one more question, Your Honor.

BY MR. THOMPSON:

Q. In your deposition, you talked about the resurrection of Christ, and you indicated that when Christ appeared in the upper room after his resurrection, if we had a video camera going, we would never have captured Him.

A. Right.

Q. Captured His image.

A. Yes.

Q. Do you still believe that?

A. I believe this, and so does, for example, Cardinal Avery Dulles, who is one of the most conservative church people around. If you read his book, *Apologetics and the Biblical Christ*, he says just that, if people did not have faith, if his disciples did not have faith, they would not have seen anything.

Q. So it was really a matter of having faith and spiritual vision?

A. No, the faith was evoked by the presence of the sense that Jesus was alive.

Q. So it was not a fact, a historical fact that Christ appeared in the upper room?

A. Well, this goes back to what I said about Providentissimus Deus, don't look for simple historical, scientific facticity when there's something much deeper there to look for.

MR. THOMPSON: Thank you.

THE COURT: All right, Mr. Thompson. We thank you. Mr. Wilcox, redirect.

MR. WILCOX: Thank you, Your Honor.

REDIRECT EXAMINATION

BY MR. WILCOX:

Q. Professor Haught, I'd like to just touch on a few points that were brought up in the cross-examination.

Do you regard intelligent design as religious because of the religious views of some of its proponents or because of the content of intelligent design?

A. It's inherently religious, but in the sense -- "religion" is a word that can encompass both spontaneous religion and theology. As I clarified, it's a theological concept, inherently theological. That means, a fortiori, that it's a religious concept, as well.

Q. You were asked whether Mr. Behe's notion of irreducible complexity is or is not testable. Whether or not irreducible complexity is testable, do you have a view as to whether intelligent design is testable?

A. Intelligent design is, in principle and forever, untestable.

Q. Mr. Thompson asked you several questions about the materialist views of some evolutionary biologists. Am I correct in understanding you that you don't want evolutionary biology being used to either prove or disprove the existence of God?

A. Precisely.

Q. Is the notion of a supernatural creator a religious notion?

A. Yes.

Q. I'd like to read from the book *Pandas* at Page 150, which is the glossary section. And the definition of "intelligent design" is given as follows: "Any theory that attributes an action, function, or the structure of an object to the creative mental capacities of a personal agent. In biology, the theory that biological organisms owe their origin to a preexistent intelligence." Is that a religious proposition?

A. In my view, it is.

Q. Mr. Thompson asked you what other prongs Mr. Dembski had in his essay that we referred to.

MR. WILCOX: May I approach, Your Honor?

THE COURT: You may.

THE WITNESS: A scientific and philosophical critique of naturalism where the scientific critique identifies the empirical inadequacies of naturalistic evolutionary theories and the philosophical critique demonstrates how naturalism subverts every area of inquiry that it touches.

Second, a positive scientific research program known as intelligent design for investigating

the effects of intelligent causes.

Third, another prong, a cultural movement for systematically rethinking every field of inquiry that has been infected by naturalism, reconceptualizing it in terms of design.

And then fourth, the one that I mentioned, a sustained theological investigation that connects the intelligence inferred by intelligent design with the God of Scripture and therewith formulates a coherent theology of nature.

None of these are really scientific prongs, they're philosophical.

BY MR. WILCOX:

Q. Mr. Thompson asked you about whether scientists have found a common ancestor among primates. Have scientists stopped looking for our common ancestors?

A. Not at all.

Q. Should they?

A. That's a testable idea.

Q. Should they stop?

A. They should not stop.

MR. WILCOX: Thank you. No other questions.

THE COURT: Recross?

MR. THOMPSON: No other questions, Your

Honor.

THE COURT: All right. Professor, thank you very much. That concludes your testimony. And I understand, Counsel, that that will conclude our trial week. Is that correct?

MR. ROTHSCHILD: That is correct, Your Honor.

THE COURT: All right. We will then, with the completion of this witness -- and let's take the exhibits, Liz reminds me. We have the CV, which is P315. Obviously you're moving for the admission of the CV. Is that correct?

MR. WILCOX: Correct, Your Honor.

THE COURT: Any objection?

MR. THOMPSON: No objections, Your Honor.

THE COURT: That's admitted. P340 is the book by Dembski, that is, *Mere Creation; Science, Faith, and Intelligent Design*. Are you moving for the admission of 340 in its entirety?

MR. WILCOX: In its entirety.

MR. THOMPSON: No objections, Your Honor.

THE COURT: All right. That's admitted, as well. Any exhibits that I've missed?

MR. WILCOX: There was reference to P11, but that's already in.

THE COURT: That's in.

MR. WILCOX: And there was reference to his expert report, but we're not moving that.

THE COURT: No, I didn't think you were. And 11 is in in its entirety. Mr. Thompson, I don't think you referred to any exhibits on cross, to the best of my recollection.

MR. THOMPSON: That is correct, Your Honor.

THE COURT: Our next trial day will be Wednesday, October 5th, that is next Wednesday, commencing at 9:00 a.m. I'll hear counsel if you have anything further before we recess for the week.

MR. THOMPSON: None, Your Honor.

MR. ROTHSCHILD: Not from the plaintiffs, Your Honor.

THE COURT: I thank all counsel for their presentations and for keeping us moving this week. This trial will stand in recess until October 5th at 9:00 a.m. Thank you all.

(Whereupon, the proceedings were concluded at 3:17 p.m.)

CERTIFICATION

I hereby certify that the proceedings and evidence are contained fully and accurately in the notes taken by me on the within proceedings and that this copy is a correct transcript of the same.

Dated in Harrisburg, Pennsylvania, this 2nd day of October, 2005.

/s/ Lori A. Shuey

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