



GENERAL QUESTIONS

1. What is the Center for Science and Culture?

The Center for Science and Culture is a Discovery Institute program that encourages schools to improve science education by teaching students more fully about the theory of evolution, as well as supporting the work of scholars who challenge various aspects of neo-Darwinian theory and scholars who are working on the scientific theory known as intelligent design. Discovery's Center for Science and Culture has more than 40 Fellows, including biologists, biochemists, chemists, physicists, philosophers and historians of science, and public policy and legal experts, many of whom also have affiliations with colleges and universities. The Center's Director is Dr. Stephen Meyer, who holds a Ph.D. in the history and philosophy of science from Cambridge University.

2. Is Discovery Institute a religious organization?

Discovery Institute is a secular think tank, and its Board members and Fellows represent a variety of religious traditions, including mainline Protestant, Roman Catholic, Eastern Orthodox, Jewish, and agnostic. Until recently the Chairman of Discovery's Board of Directors was former Congressman John Miller, who is Jewish. Although it is not a religious organization, the Institute has a long record of supporting religious liberty and the legitimate role of faith-based institutions in a pluralistic society. In fact, it sponsored a program for several years for college students to teach them the importance of religious liberty and the separation of church and state.

QUESTIONS ABOUT INTELLIGENT DESIGN

1. What is the theory of intelligent design?

The theory of intelligent design holds that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected

process such as natural selection.

2. Is intelligent design theory incompatible with evolution?

It depends on what one means by the word "evolution." If one simply means "change over time," or even that living things are related by common ancestry, then there is no inherent conflict between evolutionary theory and intelligent design theory. However, the dominant theory of evolution today is neo-Darwinism, which contends that evolution is driven by natural selection acting on random mutations, an unpredictable and purposeless process that "has no discernable direction or goal, including survival of a species." (NABT Statement on Teaching Evolution). It is this specific claim made by neo-Darwinism that intelligent design theory directly challenges.

3. Is intelligent design based on the Bible?

No. The intellectual roots of intelligent design theory are varied. Plato and Aristotle both articulated early versions of design theory, as did virtually all of the founders of modern science. Indeed, most scientists until the latter part of the nineteenth century accepted some form of intelligent design. The scientific community largely rejected design in the early twentieth century after neo-Darwinism claimed to be able to explain the emergence of biological complexity through the unintelligent process of natural selection acting on random mutations. During the past decade, however, new research and discoveries in such fields as physics, cosmology, biochemistry, genetics, and paleontology have caused a growing number of scientists and science theorists to question neo-Darwinism and propose design as the best explanation for the existence of specified complexity in the natural world.

4. Is intelligent design theory the same as creationism?

No. Intelligent design theory is simply an effort to empirically detect whether the "apparent design" in nature acknowledged by virtually all biologists is genuine design (the product of an intelligent cause) or is simply the product of an undirected process such as natural selection acting on random variations. Creationism is focused on defending a literal reading of the Genesis account, usually including the creation of the earth by the Biblical God a few thousand years ago. Unlike creationism, the scientific theory of intelligent design is agnostic regarding the source of design and

has no commitment to defending Genesis, the Bible or any other sacred text. Honest critics of intelligent design acknowledge the difference between intelligent design and creationism. University of Wisconsin historian of science Ronald Numbers is critical of intelligent design, yet according to the Associated Press, he “agrees the creationist label is inaccurate when it comes to the ID [intelligent design] movement.” Why, then, do some Darwinists keep trying to conflate intelligent design with creationism? According to Dr. Numbers, it is because they think such claims are “the easiest way to discredit intelligent design.” In other words, the charge that intelligent design is “creationism” is a rhetorical strategy on the part of Darwinists who wish to delegitimize design theory without actually addressing the merits of its case.

5. Are there established scholars in the scientific community who support intelligent design theory?

Yes. Intelligent design theory is supported by doctoral scientists, researchers and theorists at a number of universities, colleges, and research institutes around the world. These scholars include biochemist Michael Behe at Lehigh University, microbiologist Scott Minnich at the University of Idaho, biologist Paul Chien at the University of San Francisco, emeritus biologist Dean Kenyon at San Francisco State University, mathematician William Dembski at Baylor University, and quantum chemist Henry Schaefer at the University of Georgia.

6. Is research about intelligent design published in peer-reviewed journals and monographs?

Yes. Although open hostility from those who hold to neo-Darwinism sometimes makes it difficult for design scholars to gain a fair hearing for their ideas, research and articles supporting intelligent design are being published in peer-reviewed publications. Examples of peer-reviewed books supporting design include *The Design Inference* (Cambridge University Press) by William Dembski and *Darwin's Black Box* (The Free Press) by Michael Behe. Additional peer-reviewed books about design theory are scheduled to be published in 2003 and 2004 by Michigan State University Press and Cambridge University Press. In the area of journals, Michael Behe has defended his concept of “irreducible complexity” in the peer-reviewed journal *Philosophy of Science* published by the University of Chicago. There is also now a peer-reviewed journal that focuses on design theory, *Progress in Complexity, Information, and Design*,

which has an editorial advisory board of more than 50 scholars from relevant scientific disciplines, most of whom have university affiliations. Finally, the works of design theorists are starting to be cited by other scholars in peer-reviewed journals such as the *Annual Review of Genetics*.

7. What about the American Association for the Advancement of Science (AAAS) and its resolution against intelligent design?

In 2002 the board of the AAAS issued a resolution attacking intelligent design theory as unscientific. Unfortunately, the process by which this resolution was adopted was itself anything but scientific. In fact, the resolution was more a product of prejudice than impartial investigation. After the resolution was issued, members of the AAAS Board were surveyed about what books and articles by scientists favoring intelligent design they had actually read before adopting their resolution. Alan Leshner, the Chief Executive Officer of the AAAS, declined to specify any and replied instead that the issue had been analyzed by his group's policy staff. Two other AAAS board members similarly declined to identify anything they had read by design proponents, while yet another board member volunteered that she had perused unspecified sources on the Internet. In other words, AAAS board members apparently voted to brand intelligent design as unscientific without studying for themselves the academic books and articles by scientists proposing the theory. It should be noted that a number of the scientists supportive of intelligent design theory are members of the AAAS, so the AAAS board clearly does not speak for all members of that organization.

QUESTIONS ABOUT CRITICISM OF DARWINIAN EVOLUTION

1. What is the difference between a scientific challenge to Darwinian evolution and the theory of intelligent design?

Challenges to Darwinian evolution are not the same as proposed solutions, such as the scientific theory of intelligent design.

Scientific challenges to Darwinian evolution include unresolved debates amongst scientists over issues such as the peppered moth, the myth of human gill slits, Haeckel's embryos, and the Miller-Urey experiment. Scientific challenges to Darwinian evolution address

problems for which adequate solutions have not been presented.

The scientific theory of intelligent design holds that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection. Intelligent design theory then is an alternative solution to answer problems with Darwinian evolution.

2. Are there established scholars in the scientific community who challenge Darwinian evolution on a scientific basis?

Yes. Various tenets of Darwinian evolution, and the evidence put forth to support it, has been scientifically challenged by doctoral scientists, researchers and theorists at a number of universities, colleges, and research institutes around the world. Over 300 scientists have signed the Scientific Dissent from Darwin statement since it originated in 2001. These scholars include evolutionary biologist and textbook author Dr. Stanley Salthe and Giuseppe Sermonti the Editor of *Rivista di Biologia / Biology Forum*, microbiologist Scott Minnich at the University of Idaho, biologist Paul Chien at the University of San Francisco, emeritus biologist Dean Kenyon at San Francisco State University, and quantum chemist Henry Schaefer at the University of Georgia.

3. What is the “Dissent from Darwin” list?

Since Discovery Institute first published its statement of dissent from Darwin in 2001, more than 300 scientists have courageously stepped forward and signed onto a growing list of scientists of all disciplines voicing their skepticism over the central tenets of Darwin’s theory of evolution. The full statement signed by the biologists reads: “We are skeptical of claims for the ability of random mutation and natural selection to account for the complexity of life. Careful examination of the evidence for Darwinian theory should be encouraged.” Such prominent biologists who have signed the list include evolutionary biologist and textbook author Dr. Stanley Salthe, quantum chemist Henry Schaefer at the University of Georgia, and Giuseppe Sermonti the Editor of *Rivista di Biologia / Biology Forum*. The list of biologists also includes scientists from Princeton, Cornell, UC Berkeley, UCLA, Ohio State University, Purdue and University of Washington among others.

QUESTIONS ABOUT SCIENCE EDUCATION POLICY

1. Does Discovery Institute favor including the Bible or creationism in science classes or textbooks?

No. Discovery Institute is not a creationist organization, and it does not favor including either creationism or the Bible in biology textbooks or science classes.

2. Is Discovery Institute trying to eliminate, reduce or censor the coverage of evolution in textbooks?

No. Far from reducing the coverage of evolution, Discovery Institute seeks to increase the coverage of evolution in textbooks. It believes that evolution should be fully and completely presented to students, and they should learn more about evolutionary theory, including its unresolved issues. The true censors are those who want to stop any discussion of the scientific weaknesses of evolutionary theory.

3. Should public schools require the teaching of intelligent design?

No. Instead of mandating intelligent design, Discovery Institute recommends that states and school districts focus on teaching students more about evolutionary theory, including telling them about some of the theory’s problems that have been discussed in peer-reviewed science journals. In other words, evolution should be taught as a scientific theory that is open to critical scrutiny, not as a sacred dogma that can’t be questioned. We believe this is a common-sense approach that will benefit students, teachers, and parents.

4. Is teaching about intelligent design unconstitutional?

Although Discovery Institute does not advocate requiring the teaching of intelligent design in public schools, it does believe there is nothing unconstitutional about discussing the scientific theory of design in the classroom. In addition, the Institute opposes efforts to persecute individual teachers who may wish to discuss the scientific debate over design in a pedagogically appropriate manner.

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