

## FAQ: Is intelligent design just creationism (or creationism "in disguise")?

This FAQ is a work progress. In the mean time, please consider the following discussion:

To answer this question, we must first define creationism. There are many definitions of "creationism" out there. However, for rhetorical purposes, let's assume a definition of creationism coming from some of the harshest critics of intelligent design, Barbara Forrest and Paul Gross:

"An analysis of American creationism of all varieties reveals a number of shared characteristics: (1) belief in the creation of the universe by a supernatural designer and (usually) the designer's continuing intervention in the creation; (2) implacable anti-evolutionism, stemming from opposition to the scientific consensus on the evolution of the universe and life, such opposition being based on theological, moral, ideological, and political, but never scientific grounds; (3) criticism of all or most methodologies underpinning current scientific evidence for the evolution of life, without presenting for peer review any competing theory of origins; and (4) the most fundamental aspect of creationism: the explicit or implicit grounding of anti-evolutionism in religious scripture." (Barbara Forrest and Paul Gross, *Creationism's Trojan Horse*, pg. 283 (Oxford University Press, 2004))

Of their four labeled criteria, it is arguable that intelligent design meets none. Below will be a discussion of each of the criteria:

**Criteria 1:** "(1) belief in the creation of the universe by a supernatural designer and (usually) the designer's continuing intervention in the creation"

For intelligent design to meet criteria 1, under Forrest and Gross's definition it must postulate a "supernatural designer." Quotations from many writings from leading scholars in the ID research community clearly indicate that intelligent design theory does not allow one to identify the designer as natural or supernatural, and also consistently give the same reason why that is the case.

Firstly, the pro-ID supplementary textbook *Of Pandas and People*, which pre-dates most of the work of the ID movement, concurs that ID theory itself does not identify the designer as natural or supernatural:

"If science is based upon experience, then science tells us the message encoded in DNA must have originated from an intelligent cause. **But what kind of intelligent agent was it? On its own, science cannot answer this question; it must leave it to religion and philosophy.** But that should not prevent science from acknowledging evidences for an intelligent cause origin wherever they may exist. This is no different, really, than if we discovered life did result from natural causes. **We still would not know, from science, if the natural cause was all that was**

***involved, or if the ultimate explanation was beyond nature, and using the natural cause.***" (*Pandas*, pg. 7, emphasis added)

"Surely the intelligent design explanation has unanswered questions of its own. But unanswered questions, which exist on both sides, are an essential part of healthy science; they define the areas of needed research. Questions often expose hidden errors that have impeded the progress of science. For example, the place of intelligent design in science has been troubling for more than a century. That is because on the whole, scientists from within Western culture failed to distinguish between intelligence, which can be recognized by uniform sensory experience, and the supernatural, which cannot. Today we recognize that appeals to intelligent design may be considered in science, as illustrated by current NASA search for extraterrestrial intelligence (SETI). Archaeology has pioneered the development of methods for distinguishing the effects of natural and intelligent causes. ***We should recognize, however, that if we go further, and conclude that the intelligence responsible for biological origins is outside the universe (supernatural) or within it, we do so without the help of science.***" (*Pandas*, pg. 126-127, emphasis added)

"The idea that life had an intelligent source is hardly unique to Christian fundamentalism. Advocates of design have included not only Christians and other religious theists, but pantheists, Greek and Enlightenment philosophers and now include many modern scientists who describe themselves as religiously agnostic. Moreover, the concept of design implies absolutely nothing about beliefs and normally associated with Christian fundamentalism, such as a young earth, a global flood, or even the existence of the Christian God. All it implies is that life had an intelligent source." (*Pandas*, pg. 161)

In each of these quotes, it seems clear *Pandas* is telling students that intelligent design theory cannot tell us anything about the nature of the designer, and cannot determine if the designer was natural or supernatural. The reason for this is clear: there are limits on what science can tell us, and science is not capable of studying the evidence to tell us if the designer was supernatural or natural. Science can only discover what is found in the observable realm. We cannot access the supernatural, and thus intelligent design proponents make it clear that all their theory can do is tell if a natural object bears the hallmarks of having been designed--it cannot tell you anything about the designer, much less that it was a supernatural deity. Science can indeed tell us if aspects of biology were designed, but it turns out to be silent on the question on the nature of the designer.

As noted, *Pandas* was written prior to most of the scholarship of the ID movement. Yet post-*Pandas* ID scholars have said nearly exactly the same thing about the inability of intelligent design theory to identify the designer:

"The most important difference [between modern intelligent design theory and Paley's arguments] is that [intelligent design] is limited to design itself; I strongly emphasize that it is not an argument for the existence of a benevolent God, as Paley's was. I hasten to add that I myself do believe in a benevolent God, and I recognize that philosophy and theology may be able to extend the argument. But a scientific argument for design in biology does not reach that far. This while I argue for design, the question of the identity of the designer is left open. Possible candidates for the role of designer include: the God of Christianity; an angel--fallen or not; Plato's demi-urge; some mystical new age force; space aliens from Alpha Centauri; time travelers; or some utterly unknown intelligent being. Of course, some of these possibilities may seem more plausible than others based on information from fields other than science. Nonetheless, as regards the identity of the designer, modern ID theory happily echoes Isaac Newton's phrase *hypothesis non fingo*. (Michael Behe, "The Modern Intelligent Design Hypothesis," *Philosophia Christi*, Series 2, Vol. 3, No. 1 (2001), pg. 165)

"Although intelligent design fits comfortably with a belief in God, it doesn't require it, because the scientific theory doesn't tell you who the designer is. While most people - including myself - will think the designer is God, some people might think that the designer was a space alien or something odd like that." (Michael Behe, Pittsburgh Post-Gazette, 02/08/01).

"One of the worries about intelligent design is that it will jettison much of what is accepted in science, and that an "ID-based curriculum" will look very different from current science curricula. Although intelligent design has radical implications for science, I submit that it does not have nearly as radical implications for science education. First off, intelligent design is not a form of anti-evolutionism. ***Intelligent design does not claim that living things came together suddenly in their present form through the efforts of a supernatural creator. Intelligent design is not and never will be a doctrine of creation.***" (William Dembski, *No Free Lunch*, pg. 314, emphasis added)

"The conclusion that something was designed can be made quite independently of knowledge of the designer. As a matter of procedure, the design must first be apprehended before there can be any further question about the designer. The inference to design can be held with all the firmness that is possible in this world, without knowing anything about the designer." (Michael Behe, *Darwin's Black Box*, pg. 197)

"Intelligent design is modest in what it attributes to the designing intelligence responsible for the specified complexity in nature. For instance, design theorists recognize that the nature, moral character and purposes of this intelligence lie beyond the competence of science and

must be left to religion and philosophy." (William Dembski, *The Design Revolution*, pg. 42)

"ID is not an interventionist theory. Its only commitment is that the design in the world be empirically detectable. All the design could therefore have emerged through a cosmic evolutionary process that started with the Big Bang. What's more, the designer need not be a deity. It could be an extraterrestrial or a telic process inherent in the universe. ID has no doctrine of creation. Scott and Branch at best could argue that many of the ID proponents are religious believers in a deity, but that has no bearing on the content of the theory. **As for being "vague" about what happened and when, that is utterly misleading. ID claims that many naturalistic evolutionary scenarios (like the origin of life) are unsupported by evidence and that we simply do not know the answer at this time to what happened. This is not a matter of being vague but rather of not pretending to knowledge that we don't have.**"(William Dembski, [Commentary on Eugenie Scott and Glenn Branch's "Guest Viewpoint: 'Intelligent design' Not Accepted by Most Scientists](#), emphasis added)

These extensive quotes consistently show that (1) ID theory does not identify the designer as supernatural or otherwise and (2) there is a very simple and clear rationale for why ID theory does not identify the designer: science is limited in what it can investigate--it can identify the past action of an intelligent agent but it cannot tell you who the designer was or anything else about "metaphysical" nature of that designer. ID theory thus remains simply silent about the identity of the designer, for science simply cannot speak to that question. ID seems to be a concept which respects the empirical and epistemological boundaries of science and does not make unscientific claims which might establish religion.

ID theory does not identify the designer, and much more, ID theory does not claim the designer was supernatural. ID fails Forrest and Gross's criteria (1) for creationism.

**Criteria 2:** "(2) implacable anti-evolutionism, stemming from opposition to the scientific consensus on the evolution of the universe and life, such opposition being based on theological, moral, ideological, and political, but never scientific grounds"

It is impossible to elucidate the motivations for all members of the ID movement as to why they propose intelligent design as an the best explanation for life's origins. There may well be theological, moral, ideological, and political grounds for questioning Darwinism among members of the ID movement. William Dembski notes that fundamentally, the criticisms coming from the ID movement come from genuine critiques of evolution:

"For critics of intelligent design like Arnhart and Shermer, it is inconceivable that someone once properly exposed to Darwin's theory could doubt it. It is as though Darwin's theory were one of Descartes's clear and distinct ideas that immediately impels assent. Thus for design theorists to oppose Darwin's theory requires some hidden motivation, like wanting to shore up traditional morality or being a closet fundamentalist. For the record, therefore, let me reassert that our opposition to Darwinism **rests in the first instance on scientific grounds**. Yes, my colleagues and I are interested in and frequently write about the cultural and theological implications of intelligent design. But let's be clear that the only reason we take seriously such implications is because we are convinced that Darwinism is on its own terms an oversold and overreached scientific theory and that even at this early stage in the game intelligent design excels it." (William Dembski, [Intelligent Design Coming Clean](#), emphasis added)

Dembski notes that criticisms of Darwin from the ID movement "res[t] in the first instance on scientific grounds." This stands in direct contrast Forrest and Gross's criteria which requires that creationism challenges evolution "never [on] scientific grounds." Thus, if a single instance of scientific challenge to evolution from an ID proponent can be found, then intelligent design fails Forrest and Gross's criteria (2) for creationism.

The ID research community has produced much more than simply one objection to evolution on scientific grounds--it has produced many volumes objecting to evolution on scientific grounds. Just a few examples include:

- "The origin of biological information and the higher taxonomic categories" by Stephen C. Meyer, *Proceedings of the Biological Society of Washington* 117(2):213-239 (2004) (explicitly advocating that intelligent design is the best explanation for the origin of biological information in the Cambrian explosion)
- Michael Behe and David W. Snoke, "Simulating evolution by gene duplication of protein features that require multiple amino acid residues," *Protein Science*, 13 (2004). (testing for irreducible complexity among protein-protein binding sites)
- Jonathan Wells, "Do Centrioles Generate a Polar Ejection Force?," *Rivista di Biologia / Biology Forum*, 98:71-96 (2005). (using explicitly ID assumptions to elucidate the behavior of centrioles—with potential applications to cancer research)
- Jonathan Well, "Second Thoughts about Peppered Moths," *The Scientist*, 13 (11), p. 13 (May 24, 1999) (providing a scientific discussion arguing that peppered moths do not provide a compelling example of natural selection)
- Stephen C. Meyer, Evidence for Design in Physics and Biology: From the Origin of the Universe to the Origin of Life, The Proceedings of the

Wethersfield Institute, Vol. 9 (Ignatius Press 2000) (arguing that the origin of DNA is beyond the explanatory power of natural selection or abiogenesis).

- Michael J. Behe, "Evidence for Design at the Foundation of Biology," and "Answering Scientific Criticisms of Intelligent Design," The Proceedings of the Wethersfield Institute Vol. 9 (Ignatius Press 2000) (arguing that various irreducibly complex aspects of biology cannot be explained via the stepwise evolutionary processes mandated by natural selection)

- Michael J. Behe, *Darwin's Black Box* (Free Press 1996) (gives detailed biochemical arguments as to why many irreducibly complex structures in biology could not have arisen through stepwise Darwinian processes (natural selection)).

- *Icons of Evolution* by Jonathan Wells (Regnery, 2000) (providing a detailed scientific critique of the lines of evidence used to support evolution in many popular biology textbooks)

- William A. Dembski, *The Design Inference* (Cambridge University Press 1998) (providing a mathematical argument that design is detectable, applying his arguments to biology to argue that Darwinian mechanisms cannot produce specified complexity)

- William A. Dembski, *No Free Lunch* (Rowman & Littlefield, 2002) (further applying Dembski's methods for detecting ID to biology, extensively discussing obstacles faced when trying to evolve a bacterial flagellum).

- Also, see various essays in *Uncommon Dissent: Intellectuals Who Find Darwinism Unconvincing* (ISI Books, 2004). (Cornelius G. Hunter: "Why Evolution Fails the Test of Science; Roland F. Hirsch: Darwinian Evolutionary Theory and the Life Sciences in the Twenty-First Century; David Berlinski: The Fossil Record is Incomplete, The Reasoning is Flawed: Is the Theory of Evolution Fit to Survive?).

- *Debating Design* (Cambridge University Press, 2004). (William A. Dembski: The Logical Underpinnings of Intelligent Design; Walter L. Bradley: Information, Entropy, and the Origin of Life; Michael J. Behe: Irreducible Complexity: Obstacle to Darwinian Evolution; Stephen C. Meyer: The Cambrian Information Explosion).

- *Mere Creation* (InterVarsity Press, 1998). (Michael J. Behe: Intelligent Design Theory as a Tool for Analyzing Biochemical Systems; Siegfried Scherer: Basic Types of Life; Sigrid Hartwig-Scherer: Apes or Ancestors?; Jeffrey P. Schloss: Evolutionary Accounts of Altruism and the Problem of Goodness and Design; and also various essays regarding design in the cosmos and other aspects of the universe (see pgs. 363-445).

- Finally, see various chapters in *Darwin, Design, and Public Education* (John Angus Campbell ed., Michigan State University Press 2003).

These are just a few examples of papers published by ID proponents which provide extensive critiques of evolution on completely scientific grounds. There is no doubt that ID fails Forrest and Gross's 2nd criteria for creationism. In fact, it seems clear that the ID movement meets William Dembski's much higher standard that its criticisms of evolution rest "first" on scientific grounds.

**Criteria 3:** "(3) criticism of all or most methodologies underpinning current scientific evidence for the evolution of life, without presenting for peer review any competing theory of origins"

Firstly, ID proponents do not question all of the claims of Neo-Darwinism. For example, Michael Behe accepts common descent, and William Dembski concedes common descent is a possibility. However, the most interesting aspect of this criteria is the requirement that ID proponents do their work "without presenting for peer review any competing theory of origins." In reality, ID proponents have subjected their ideas about ID to peer review.

In 2004, Stephen Meyer published an article entitled "The origin of biological information and the higher taxonomic categories" (*Proceedings of the Biological Society of Washington* 117(2):213-239 (2004)) which specifically advocated that intelligent design is the best explanation for the origin of biological information in the Cambrian explosion. This example alone causes ID to fail Forrest and Gross's criteria (3).

The history of ID proponents presenting their ideas for peer review extends before Meyer's 2004 article. In 1998, William Dembski laid the groundwork for detecting ID in the peer-reviewed *The Design Inference* (Cambridge University Press). More recently, Jonathan Wells explicitly employed ID predictions to investigate the nature and behavior of centrioles in his "Do Centrioles Generate a Polar Ejection Force?" (*Rivista di Biologia / Biology Forum*, 98:71-96 (2005)). Additionally, Michael Behe and David W. Snoke tested some of ideas about irreducible complexity in protein-binding interactions in their "Simulating evolution by gene duplication of protein features that require multiple amino acid residues" (*Protein Science*, 13 (2004)).

Incidentally, even if none of these peer-reviewed works by ID proponents had ever been published, ID would still fail Forrest and Gross's criteria (3). This is because their criteria does not require publication, but merely "presenting for peer review." In fact, ID proponents have submitted their ideas to mainstream journals only to see them turned down. This is because of the immense bias faced by ID proponents in getting their ideas published. Sometime before August 5, 2000, Michael Behe submitted for peer review for publication in a mainstream scientific journal, 'Obstacles to gene duplication as an explanation for complex biochemical systems.' In "[Correspondence w/ Science Journals Response to critics concerning peer-review](#)," Behe recounts how a paper he wrote was rejected by reviewers because it was unorthodox. Below is what the editor and reviewer wrote:

Dear Mike,

I'm torn by your request to submit a (thoughtful) response to critics of your



non-evolutionary theory for the origin of complexity. On the one hand I am painfully aware of the close-mindedness of the scientific community to non-orthodoxy, and I think it is counterproductive. But on the other hand we have fixed page limits for each month's issue, and there are many more good submissions than we can accept. So, your unorthodox theory would have to displace something that would be extending the current paradigm.

In a final letter back, the editor writes:

I would like to encourage you to seek new evidence for your views, but of course, that evidence would likely fall outside of the scientific paradigm, or would basically be denials of conventional explanations. You are in for some tough sledding.

The important point here is that Behe presented his ID-related work for peer-review publication in mainstream scientific journals. This alone causes intelligent design to fail Forrest and Gross's 3rd criteria. However, as recounted at "[An Anonymous Review Of A Paper By Behe](#)", one reviewer rejecting Behe's submitted paper stated the following:

"Consistently to use the phrase "intelligent design" instead of God is almost cheating, since this use has an ambiguous relation to the presence in the universe of a sort of intelligence that, except perhaps in a pantheistic sense if one wishes to think so, has no implication regarding the existence of a God. ...

"Of course science has its limits, but they are surely not where Behe places them; they are not, indeed, in the realm of biological evolution. The perception of science's limits will evolve as science itself evolves, and the limits won't furnish an argument in favor of intelligent design in the sense of a design imagined by a universal "person." The argument will be in favor of the finiteness of the analytical powers of the human mind. The limits of science will probably be recognized as being, in part, imposed by the position in the universe of the intelligent (human) observer. Whatever God's role in the universe, if any, biology will be understood without reference to him. That is implied by the essence of science."

However correct the reviewer may (or may not) be in his arguments, he refutes only a straw man. This argument rebuts nothing close to what Behe was arguing, as Behe was arguing about the inability of Darwinian mechanisms to account for the origin of certain biochemical systems, and didn't mention "God" or even intelligent design. But the important point here is clear: Behe unequivocally has submitted his ideas for publication in peer-reviewed journals, even if they were misunderstood and ultimately rejected because of Kuhnian-paradigm-protection. As Darwinist Don Lindsay [concedes](#), "Michael Behe has submitted some of the



ideas from "Darwin's Black Box" to peer-reviewed scientific journals." This fact alone causes ID to fail Forrest and Gross's 3rd criteria for creationism.

It seems clear from these examples that ID proponents have published their work in peer-reviewed scientific forums, and have at least attempted to do so, thus failing Forrest and Gross's 3rd criteria for creationism.

**Criteria 4:** "(4) the most fundamental aspect of creationism: the explicit or implicit grounding of anti-evolutionism in religious scripture"

As noted in the discussion of criteria 3, ID proponents have put forth large amounts of purely empirical arguments in favor of their views. William Dembski writes:

"The most obvious difference is that scientific creationism has prior religious commitments whereas intelligent design does not. ... Intelligent design ... has no prior religious commitments and interprets the data of science on generally accepted scientific principles. In particular, intelligent design does not depend on the biblical account of creation." (William Dembski, *The Design Revolution*, pg. 40)

"Intelligent design begins with data that scientists observe in the laboratory and nature, identifies in them patterns known to signal intelligent causes and thereby ascertains whether a phenomenon was designed. For design theorists, the conclusion of design constitutes an inference from data, not a deduction from religious authority." (William Dembski, *The Design Revolution*, pg. 42-43)

"Natural causes are too stupid to keep pace with intelligent causes. Intelligent design theory provides a rigorous scientific demonstration of this long-standing intuition. Let me stress, the complexity-specification criterion is not a principle that comes to us demanding our unexamined acceptance--it is not an article of faith. Rather it is the outcome of a careful and sustained argument about the precise interrelationships between necessity, chance and design." (William Dembski, *No Free Lunch*, pg. 223)

These statements are not just bluffs on the part of Dembski, who has published extensive work grounding his critique of neo-Darwinism in empirical arguments. Intelligent design theory is based upon these empirical arguments that life was designed. Indeed, Dembski's 1998 peer-reviewed Cambridge University Press book *The Design Inference* lays out a detailed argument for detecting design without making any discussions of religious scripture nor any reliance upon religious arguments. It is difficult to imagine how such an explicit attempt to put forth empirically-based arguments could be implicitly based upon religious scripture.

Similarly, another leading ID-theorist, Michael Behe, makes it clear in *Darwin's Black Box* that he is not basing his beliefs about intelligent design upon Genesis or scripture:

Many people think that questioning Darwinian evolution must be equivalent to espousing creationism. As commonly understood, creationism involves belief in an earth formed only about ten thousand years ago, an interpretation of the Bible that is still very popular. For the record, I have no reason to doubt that the universe is the billions of years old that physicists say it is. Further, I find the idea of common descent (that all organisms share a common ancestor) fairly convincing, and have no particular reason to doubt it. I greatly respect the work of my colleagues who study the development and behavior of organisms with an evolutionary framework, and I think that evolutionary biologists have contributed enormously to our understanding of the world. Although Darwin's mechanism--natural selection working on variation--might explain many things, however, I do not believe it explains molecular life." (Michael Behe, *Darwin's Black Box*, page 5)

Behe thus accepts common descent and does not base his work upon Biblical interpretation. Behe's words are not those of a person whose questions about Neo-Darwinism stem from religious scripture. This concurs with Dembski's views that "opposition to Darwinism rests in the first instance on scientific grounds" (William Dembski, [Intelligent Design Coming Clean](#)).

The fact that the scientific conclusion are harmonious with some religious beliefs does not mean those scientific conclusions are therefore based upon those religious beliefs. The data is what clearly forms the basis for inferring intelligent design. Thus, intelligent design theory seems to fail Forrest and Gross's 4th requirement that creationism be grounded in "religious scripture."

### **Conclusion:**

Intelligent design theory fails each of the four required criteria for creationism put forth by some its the harshest critics.