

The Top-Ten Misinformed Objections to ID

1. Intelligent Design is not true because there are no “real scientists” who support it.

First, the truth-value of a proposition does not depend upon whom or how many people believe it. Secondly, this objection is overwhelmingly contradicted by the actual facts. For instance, leading ID theorist **Michael Behe** (Ph.D.

Biochemistry, University of Pennsylvania) has published over 35 articles in refereed biochemical journals, and is a tenured professor of biochemistry in the Department of Biological Sciences at Lehigh University. Scott Minnich (Ph.D. Microbiology, Iowa State University), another highly respected and widely published scientist, is associate professor of microbiology at the University of Idaho

and a staunch proponent of ID. Paul Chien (Ph.D. Biology, University of California at Irvine's Department of Developmental & Cell Biology), professor in the Department of Biology at the University of San Francisco, supports ID as well. He has held postdoctoral fellowships in the Department of Environmental Engineering at the California Institute of Technology, Pasadena (CIT) the Chinese University of Hong Kong, and is a consultant to both the Kerckhoff Marine Laboratory of the CIT and the Scanning Electron Microscopy & Micro X-ray Analyst in the Biology Department of Santa Clara University. While Dr. Chien's work has been published in over fifty technical journals, another ID proponent has him out-published by 1000 articles: the computational chemist **Henry F. Schaefer III** (B.S. chemical physics MIT, Ph.D. chemical physics, Stanford University). Schaefer, whom the

Science Citation Index reports to have been cited more than 39,000 times, has been awarded and has held more prestigious positions within the scientific community than can be reasonably listed here. There is also the cell biologist Jonathan Wells (Ph.D. University of California at Berkeley), the astronomer Guillermo Gonzalez (Ph.D. University of Washington), and the biophysicist Cornelius Hunter (Ph.D. University of Illinois). A listing of ID scientists could fill up the rest of this booklet, but it's likely that even after identifying these prominent ID scientists some critics might still argue that this is only a small percentage compared with the greater numbers that support Darwinism. If one agrees with this, he or she must admit that the above objection—there are no “real scientists” who support ID—is categorically false.



Also, consider the fact that many of today's most widely accepted scientific theories themselves began as movements among a radical few (i.e.: a sun-centered universe, quantum mechanics, evolution by natural selection). Lastly, consider the fact that the list of scientists turning away from the Darwinian picture of biological origins has been consistently growing over the last decade. If one is still not convinced the above objection is baseless, he or she should refer to the list of more than seven hundred scientists who “are skeptical of claims for the ability of random mutation and natural selection to account for the complexity of life,” available online at: dissentfromdarwin.org

2. Intelligent Design is not true because it is not published in peer-reviewed journals.

To begin, the truth-value of a proposition does not depend on its being published in a clearly prescribed way. Many significant theories in the history of science were first published without peer-review in scientific books for the educated public—including Copernicus' *De Revolutionibus*, Newton's *Principia*, and Darwin's *Origin of Species*. Nonetheless, this “argument” against ID is also flatly contradicted by the facts: ID scientists and philosophers are published in peer-reviewed literature. Consider these recent articles supporting ID research:

M.J. Behe and D.W. Snoke, “Simulating Evolution by Gene Duplication of Protein Features That Require Multiple Amino Acid Residues,” *Protein Science*, 13 (2004): 2651-2664.

D. A. Axe, “Estimating the Prevalence of Protein Sequences Adopting Functional Enzyme Folds,” *Journal of Molecular Biology*, Vol. 341 (2004): 1295–1315.

Scott Minnich and Stephen C. Meyer, “Genetic Analysis of Coordinate Flagellar and Type III Regulatory Circuits,” *Proceedings of the Second International Conference on Design & Nature, Rhodes Greece*, edited by M.W. Collins and C.A. Brebbia (WIT Press, 2004).

Ø. A. Voie, “Biological function and the genetic code are interdependent,” *Chaos, Solitons and Fractals*, Vol 28(4) (2006): 1000-1004.

Jonathan Wells, “Do Centrioles Generate a Polar Ejection Force?,” *Rivista di Biologia/Biology Forum* 98 (2005): 37-62.

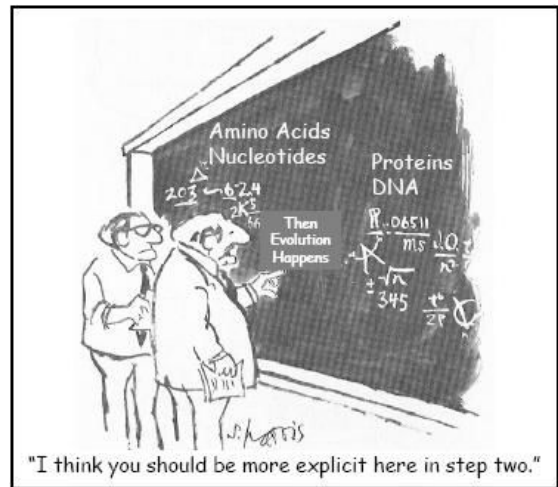
Lönning, W. E. "Dynamic genomes, morphological stasis and the origin of irreducible complexity", *Dynamical Genetics*, (2005): 101-119.

The controversy over publishing ID was spotlighted in 2004 when ID theorist Stephen Meyer published his essay "The Origin of Biological Information and the Higher Taxonomic Categories" in the peer-reviewed journal *Proceedings of the Biological Society of Washington* (2004,117: 213-239). Of course, this sent ID critics into a fury and their rhetorical tactic quickly changed. Their charge was no longer, "ID is not science because it does not appear in peer-reviewed journals," but rather transformed (or flip-flopped) into "Journals should not, as a rule, publish ID because it is not science." The strategy of ID critics here is wholly disingenuous. Make it a rule not to publish ID, then justify that rule by proclaiming ID is not science because it is not published in peer-reviewed journals.

3. Intelligent Design is not true because it is a "God-of-the-gaps" argument.

Many critics suggest that ID is an argument from scientific ignorance. This objection caricatures ID as arguing that because naturalists have failed to explain the origin of biological information and molecular machines, a "designer" must be posited to fill the gap in our current knowledge, yet this is not how the design argument is formulated. As ID philosopher of science Stephen Meyer writes, "Design theorists do not infer design because natural processes cannot explain the origin of biological systems, but because these systems manifest the distinctive hallmarks of intelligently designed systems—that is, they possess features that in any other realm of experience would trigger the recognition of an intelligent cause." The logical formulation here is positive, rather than negative. It begins with what is known, rather than what is unknown. ID starts with the observation that complex specified information (CSI) and irreducible complexity (IC) are known indicators of intelligent agent causation. Human beings, who are empirically observable designers, regularly produce designed systems such as written texts, computer programs, machines, etc. The technological advances of recent years have allowed scientists to look deep within life systems. To their amazement, the smallest units of life are not the simple blobs of jelly that early evolutionists predicted, but extremely complex IC systems full of CSI. The life systems now known to science are entirely analogous to the written texts, computer programs and machines produced by human designers. Scientists know that intelligent designers produce CSI. It is also known that natural mechanisms have not been observed to produce CSI. Based on what is known, ID theorists argue that an inference to an intelligent cause is the best current explanation for biological CSI and IC. The design inference is thus based on empirical evidence and rational analysis rather than ignorance.

The ID critic may still argue, "Okay, so we do not know how nature can produce CSI or IC on its own, but maybe one day we will." Anti-ID theorists can argue that eventually we will discover how reams of genetic information arose by purely naturalistic means, and eventually we will show how molecular machines can be built through some sort of Darwinian process; therefore, to posit intelligent design is premature. However, if this is the argument against ID, then it must be understood that it is the naturalist who is making an argument rooted in ignorance and is hopeful for something that is not yet known. It turns out that the gap-argument against ID is itself a gap-argument.



4. ID is not true because it is not fully naturalistic.

Some ID critics have decided that the best way to combat ID is to define "science" as a materialistic enterprise with the goal of arriving at solely naturalistic explanations. Given that an intelligent cause is a non-natural explanation, ID is thus removed from science by definitional fiat. ID scientists argue that the true goal of science is to gain a better understanding of the physical world regardless of where the evidence leads, or of any particular philosophical preferences. Design theorists postulate that naturalistic mechanisms are incapable of producing the complex specified information pervading the physical world. This question is foundational to the entire debate. The ID critic employing this tactic is essentially removing the discussion from the table by definition. While this might be a good debating strategy, it is a poor approach in searching for truth.

5. ID is not true because it is against naturalism.

Many anti-ID polemicists argue that ID is without merit because its leading proponents have openly criticized the philosophical doctrine of naturalism. This objection, aside from its possible use as a rhetorical bluster to gain

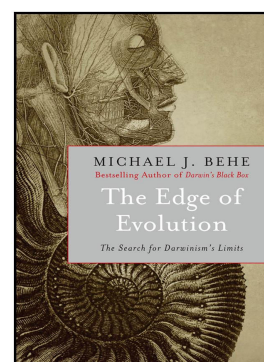
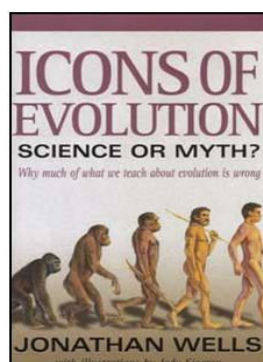
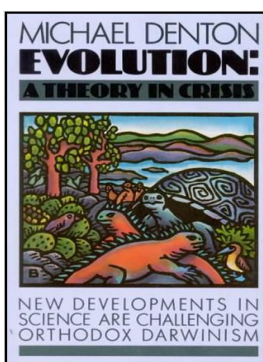
support from skeptical atheist groups, is quite astonishing. This charge is tantamount to saying ID is not true because ID is not true. As illustrated above, the science of design detection is categorically a non-naturalistic science, as is forensics and archaeology. The whole research project of ID is in a sense, testing naturalism. What does this have to do with whether or not it is true? On the other hand, what ID critics might really be objecting to is the idea that ID is secretly against atheism and a purely materialistic view of the universe, and that somehow this discredits them. When critics write that ID has a hidden agenda against philosophical naturalism (“its creationism’s Trojan Horse”) this is yet another rhetorical device. For instance, ID critics will bring up the so-called “wedge strategy” of the ID think tank, the Discovery Institute. In 1996 the Discovery Institute acknowledged to their financial supporters that they sought “nothing less than the overthrow of materialism and its cultural legacies.” That is, the Discovery Institute’s goal is to replace the materialistic science of polemicist atheologians like Richard Dawkins, with a science “consonant with Christianity and theistic convictions.” It is worthy to note that “consonant with,” means “in harmony with,” not, “same as.” ID theorists are not trying to transform science into religion, or religion into science. They are trying to test whether the findings of science are consistent with the theistic idea of nature being the creation of an omnipotent, omniscient being; i.e. God. They have openly stated over and over throughout their literature that the conclusion of the scientific evidence is that the marks of a designing intelligence are detectable in nature, but that the scientific method cannot specify the identity of the designer. This is not a strategic ploy.

6. ID is not true because there are finches on the Galapagos Islands that undergo cyclical variations in beak sizes, moths that are black and can hide from birds on dark colored trees, and insects and bacteria that “evolve” resistance to pesticides and antibiotics. (i.e.: ID isn’t true because “evolution” is FACT!)

Evolution, defined as “genetic change in species over time”, is undoubtedly an observed biological process; however, when evolution is defined as “the process by which all biological form and function have been derived,” it is far more imagination than fact. The idea that birds, bees, wasps and wallabies are all related on a great tree of life and have evolved by an unguided purposeless process of chance and selection is a philosophical proposition far from scientific confirmation. The generation of nature’s astonishing variety, which according to neo-Darwinian theory has resulted from billions of rare random beneficial genetic mutations occurring over and over in the right populations at the right time, is overwhelmingly contradicted by the actual findings of modern science. The “evidence for evolution” most often presented is actually only evidence for what is known as “microevolution” (genetic change within existing species and gene pools). The “evolution” which ID theorists tend to question is known as “macroevolution” (large-scale changes from class to new class, phyla to new phyla, etc. over geological time.) The idea that multiple rounds of micro-changes result in macro-changes is highly questionable. All that microevolution requires is natural selection acting upon pre-existing genetic information. Macroevolution requires the origination of new genetic information as a result of random chance mutations. What scientists have discovered about mutations and selection fails to be adequate to meet the requirements of neo-Darwinian theory. In fact, the very thing that ID theorists point to as indicating design, the presence of vast quantities of bio-information, is a requisite component of evolutionary change. For evolution to occur, there must be present within the evolving organism a means of storing and passing on its genetic makeup. This means that DNA, and the many multiple enzymes required to translate and transcribe its coded information, must be in place if evolution is to occur. These are the very processes that ID theorists have demonstrated that evolutionary theory is incapable of producing. In the words of ID biophysicist Cornelius Hunter, “ID theory has no problem with the existence of particular evolutionary processes to the extent that they are supported by the empirical evidence. This is one reason why ID allows for more diversity in its explanation than evolution. Darwin’s exclusive focus on natural laws fails to account for our complex and interconnected



biological world.” For more information on the evidentiary shortcomings of



naturalistic evolutionary theories see the resources listed at the end of this paper.

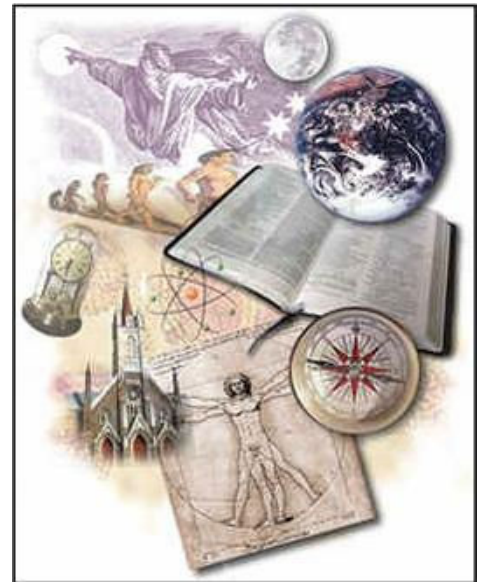
7. ID is not true because I consider myself an intelligent person, and although I haven't read any ID publications or really studied it very much, intelligent people agree that ID isn't true. Intelligent people I know (who may or may not have studied ID) laugh at advocates of ID, and I hate being laughed at...

The aim of this paper is to expose you to some of the evidence and arguments for intelligent design so you can make up your own mind about it. If you truly desire to make an intelligent, informed decision about ID, please see the pages of resources listed towards the end of this paper in order to get started on an actual examination.

8. ID is not true because it is religion.

This is by far the most frequently used line of attack against ID. Rather than explaining how purely naturalistic mechanisms, plus millions of years and mistakes (mutations) could “evolve” the reams of genetic information and cellular machinery underwriting biological life, ID critics resort to an old debating trick: demonize your opponents. The simple assertion that all things religious are false, merely betrays an anti-religious bias and reliance upon cultural fashion. The undisclosed strategy here is to use the word “religion” as a stigmatizing label in order to deter people from an honest evaluation of ID on its own terms. Also, that ID is a religious theory solely by virtue of its appeal to a designer, rests upon a simplistic understanding of both religion and reality. To conclude from an examination of nature that a designing mind has been creatively at work is not a religious deduction, but a persistent idea throughout intellectual history. This was the deduction of the ancient Greek philosophers Plato and Aristotle. This was the deduction of the early modern scientific revolutionaries Copernicus, Galileo, and Kepler. This was the deduction of Sir Isaac Newton. Modern scientists Louis Pasteur, James Clerk Maxwell, and Michael Faraday arrived at the same conclusion. The inference to design from biological and cosmological specificity and complexity has a long history among scientists and is not based upon religious dogma.

The modern formulation of the design hypothesis begins with the observation that biological systems possess an identifiable quality of complex specified information (CSI). Modern ID theory tests the causal adequacy of known naturalistic mechanisms and non-natural mechanisms to see if they can generate CSI. Based upon the empirical evidence and logical analysis of these causal powers, ID theorists infer design as the best observational explanation for the CSI within living systems. “Religion” begins with the idea that man can have a relationship with a divine creator being. Religions then look to sacred texts, sacraments and ceremonies in order to facilitate a growth or good standing between god and man. “Religion” and ID are distinct from one another in both their form and function. Calling the design hypothesis a “faith-based” or religious idea betrays a poor knowledge of history, science, and philosophy.

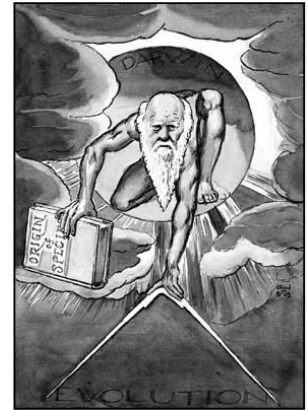


9. ID is not true because it is religiously motivated.

A related objection has to do with the claim that ID has some secret religious agenda. For example, an ID proponent opens up her biochemistry textbook and wants to discuss whether the phosphorylation markings on a particular protein (histone), which triggers DNA compaction, could be produced by pre-biotic natural selection, and is charged with the counter-argument, “You’re just a religious fundamentalist trying to convert me.” Regardless of whether the student is a “fundamentalist” or motivated by a religious conviction has no ultimate bearing upon the scientific question posed. The idea that a claim can be rejected because of the motivations behind it is a well-known logical fallacy and is typically employed by persons unable to make a reply for his or her position. The truth or falsity of a proposition is properly judged by the reasons given in its support.

10. ID is not true because it has religious implications.

All scientific origin theories, including evolution, have religious implications. The theory of intelligent design has religious implications; it is for precisely this reason that opposition to ID is so vitriolic and deeply ingrained among many members of this pluralistic society. If ID is in fact scientifically viable, and a more plausible explanation for life as we know it, then atheists and those committed to the idea that nature is all there is or ever will be are most certainly going to be upset. Consider the words of ID historian of science Thomas Woodward:



“It is true that religious issues are in play in this grand debate, but this is true just as much on the Darwin side as it is on ID’s side. Darwinism may not entail atheism, but it appears certain that to some extent, atheism entails Darwinism. Thus to question Darwinism on scientific grounds, to an atheist, cuts deep into the beliefs and presuppositions embedded in their own worldview.”



Books:

1. **Evolution: A Theory in Crisis** (Adler and Adler. 1986) by Michael Denton.
2. **Darwin on Trial** (InterVarsity Press. 1991) by Phillip Johnson
3. **Evolution under the Microscope** (Leighton Academic Press, 2002) by David Swift.
4. **The Edge of Evolution: The Search for the Limits of Darwinism** (Free Press 2007) by Michael Behe
5. **Dimenticare Darwin** (Discovery Institute Press, 2005) by Giuseppe Sermonti
6. **The Naked Emperor: Darwinism Exposed** (Janus Publishing Company, 2006) by Dr. Antony Latham
7. **Icons of Evolution: Science or Myth?** (Regnery Publishing, 2000) by Jonathan Wells
8. **Uncommon Dissent: Intellectuals Who Find Darwinism Unconvincing** (ISI Books, 2004) Edited by William Dembski

Online Resources:

1. **The Evolution Controversy**

Understanding the Basic Issues in the Debate Between Biological Evolution and Intelligent Design. Online Booklet at: <http://www.sciohio.org/EvolutionWeb.pdf>

2. **Getting the Facts Straight: A Viewer's Guide to PBS's Evolution**

An examination of the popular PBS Evolution series available at: <http://www.reviewevolution.com/>

3. **The True Origin Archive**

Exposing the Myths of evolutionary theory at: <http://www.trueorigin.org/>

4. **Evolution News and Views**

Information about the current state evolution at: <http://www.evolutionnews.org/>



Essential ID Reading List (*Major Authors and Selected Works*)

William Dembski. (ID Theorist, Mathematician, Philosopher)

The Design Revolution: Answering the Toughest Questions About Intelligent Design (InterVarsity Press, 2004)

The Design Inference: Eliminating Chance through Small Probabilities (Cambridge Studies in Probability, Induction and Decision Theory, 1998)

Debating Design: From Darwin to DNA *edited with* Michael Ruse (Cambridge University Press, 2004)

Intelligent Design: The Bridge Between Science and Theology (InterVarsity Press, 2002)

Michael Behe (ID Theorist, Biochemist)

Darwin's Black Box: The Biochemical Challenge to Evolution (Free Press, 2nd Rev.ed. 2007)

The Edge of Evolution: The Search for the Limits of Darwinism (Free Press, 2007)

Stephen Meyer (ID Theorist, Philosopher of Science)

Science and Evidence for Design in the Universe (Proceedings of the Wethersfield Institute, Ignatius Press, 2000)

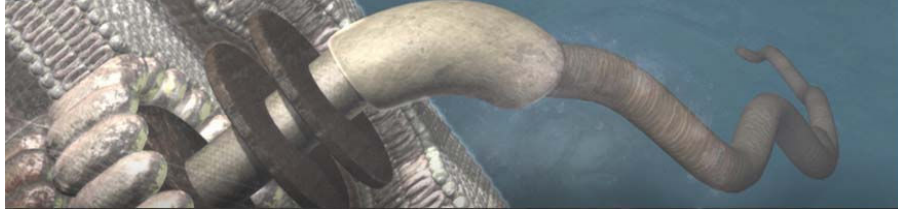
Darwinism, Design, and Public Education (Rhetoric and Public Affairs Series, Michigan State University Press, 2004)

Thomas Woodward (Historian and Rhetorician of Science)

Doubts About Darwin: A History of Intelligent Design (Baker Books, 2003)

Darwin Strikes Back: Defending the Science of Intelligent Design (Baker Books, 2006)

Top 5 Intelligent Design Websites:



1. Research ID. (ResearchID.org)

An ID Wiki with hundreds of informational links and articles on intelligent design. The nexus for researching intelligent design.

2. The Access Research Network (arn.org)

“Providing accessible information on science, technology, and society from an intelligent design perspective.” ARN provides a weekly ID update focusing on ID in the news and scientific literature as well as numerous links to online articles by leading ID proponents. Also check out ARN videos on YouTube at ([youtube.com/user/AccessResearch](https://www.youtube.com/user/AccessResearch))

3. The Discovery Institute Center for Science and Culture (discovery.org/csc)

The Discovery Institute, an independent think-tank in Seattle, is the intellectual home of the intelligent design movement. Their website is full of constantly updated information. Also, check out the Discovery Institute’s blog (evolutionnews.org) and podcast (idthefuture.com).

4. The Intelligent Design Evolution Awareness Center (ideacenter.org)

A non-profit organization dedicated to promoting awareness of scientific evidence that supports intelligent design. This site is aimed at college level students.

5. Uncommon Descent (uncommondescent.com)

The Intelligent Design Weblog of ID theoretician William Dembski, ID Journalist Denyse O’Leary, and friends.