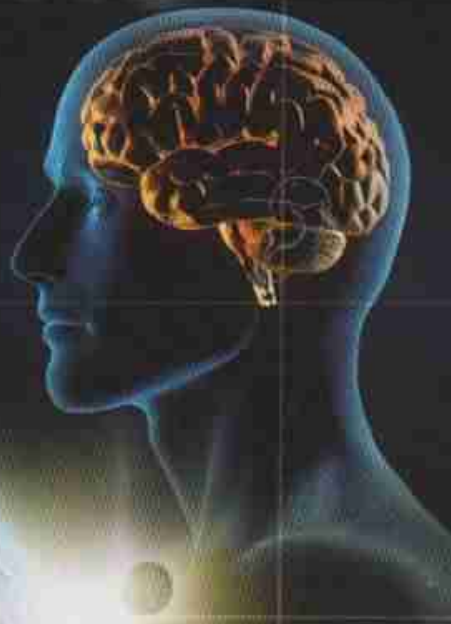


Why Scientists are Abandoning Darwin

Intelligent Design



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What Is Intelligent Design?

INTELLIGENT DESIGN

Intelligent design is the study of patterns in nature that are best explained as the result of intelligence. Intelligent design (abbreviated ID) shouldn't be controversial. Archaeologists, forensic scientists, and SETI researchers (scientists looking for signs of intelligence from outer space) are all doing intelligent design research. ID is controversial because it claims to find signs of intelligence in biology. This raises the question of who the designer could be.



OLD-STYLE DESIGN

Life looks designed. But is it actually designed? The biblical writers claim that the natural world displays knowledge of the Creator (Psalm 19:1–2; Romans 1:20–21). In the early 1800s, William Paley gave his famous Watchmaker Argument in which he reasoned that finding a watch lying in a field would indicate purposeful design rather than the outworking of purely natural forces.¹ Paley believed that living organisms bore the same design features as a watch.

DARWIN'S SHADOW

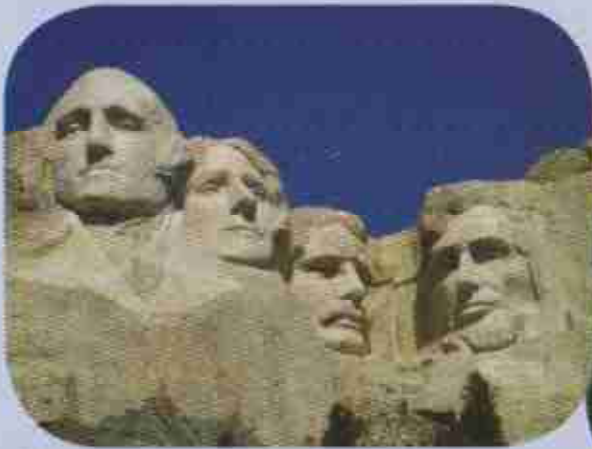
Until the publication of Charles Darwin's *Origin of Species* in 1859, most scientists and philosophers found the evidence for design in biology persuasive. Yet, according to biologist Francisco Ayala, "It was Darwin's greatest accomplishment to show that the complex organization and functionality of living beings can be explained as the result of a natural process—natural selection—without any need to resort to a Creator or other external agent."² Darwinism has since been the dominant viewpoint.

Yet despite its widespread acceptance, Darwinism faces a radical challenge from the theory of intelligent design (ID). In fact, the evidence for design in biology has become overwhelming.³ Past design arguments largely failed because they lacked precise methods for design recognition. ID theorists today have developed a rigorous scientific method for detecting design, known as specified complexity.

William Paley was a Christian apologist, born in 1743 in England. His most famous work is *Natural Theology; or, Evidences of the Existence and Attributes of the Deity*. Paley argued that certain biological features in nature bore the marks of a Designer, much as the interworking parts of a watch point to a Watchmaker.

SPECIFIED COMPLEXITY

Specified complexity is the fingerprint of design. For something to exhibit specified complexity it must be hard to reproduce by chance (complex) and it must match an independently given pattern (specified). Any mountain you see is complex. It would be highly unlikely for the forces of nature to reproduce its exact shape anywhere else. But Mt. Rushmore isn't just complex. It's also specified—it matches the faces of four U.S. presidents. Because Mt. Rushmore is complex and specified, we know it's designed.



How Does ID Differ from Creationism and Evolution?

One of the most commonly asked questions about ID is how it differs from creationism and evolution.

EVOLUTION

"Evolution" can be defined in several ways. One definition is simply change over time. Another is that organisms adapt to their changing environments. A popular example is the variation in finch beak sizes as the result of changing weather patterns. The Galapagos Islands are home to thirteen different kinds of finches. Finch beak size is a trait that has been found to fluctuate naturally as the environment goes through seasons of drought. This is small-scale evolution, known as **microevolution**, and does nothing to explain the origin of finches.



The controversial claim is that microevolution leads inevitably to **macroevolution** (a.k.a. Darwinian evolution). Macroevolution makes two big claims:

1. All organisms trace their lineage back through time to a common ancestor. This is often called "universal common ancestry" or "common descent."



2. The mechanism that drives common ancestry is natural selection acting on random variation. This is an unguided material process that gives no evidence of purpose or design.

Darwin believed that nature (not God) would select the fittest organisms to survive in their environment and then produce offspring. The controversy is whether this process can generate entirely new species, as Darwin claimed.

Most ID theorists are skeptical of common descent, but unanimously agree in regarding Darwin's mechanism of natural selection acting on random variation as only a minor part in the history of life. ID theorists are skeptical that Darwin's mechanism is sufficient to generate all the complexity and diversity of life. Furthermore, they also agree that organisms show clear, scientific evidence of design.

Charles Darwin

was born in England on February 12, 1809. While Darwin wrote many books—including *The Descent of Man, and Selection in Relation to Sex*—he is best known for *The Origin of Species*, in which he offers natural selection as the driving force of evolution.

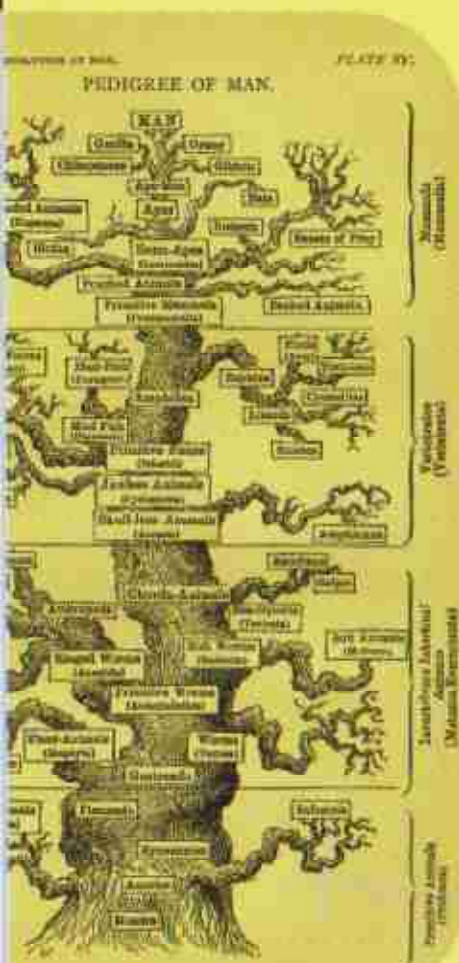
CREATIONISM

Creationism holds that the universe was created by a Supreme Being. There are young-earth creationists (YECs) and old-earth creationists (OECs). YECs begin with a particular interpretation of Genesis specifying that:

- ★ God created the earth in six 24-hour days,
- ★ the universe is approximately 10,000 years old,
- ★ all fossils worldwide are the result of Noah's global flood.

OECs accept standard scientific dating, which places the Earth at roughly 4.5 billion years old and the universe at 13.7 billion years old. They interpret Genesis in light of these scientific facts. While OECs reject macroevolution, they accept microevolution as God's method of adapting existing species to their changing environments.

Though often confused with creationism, ID is distinct from it. Rather than assume a particular interpretation of Genesis, ID is committed to investigating the natural world through methods developed within the scientific community.⁴ Given what the natural world reveals about itself, its proponents argue that intelligence best explains certain patterns in nature.



Why Is Design Important?

In *Darwin's Dangerous Idea*, atheist philosopher Daniel Dennett suggests that religious believers who talk their children out of believing Darwinian evolution should be caged in "cultural zoos" or else quarantined because they pose a serious threat to society.⁵ Why such concern? Darwin's theory supplies our increasingly secular culture with its creation story. It has become the primary justification for **naturalism**, the worldview preferred by atheists.

Naturalism sees the universe as a self-contained system of matter and energy that operates by unbroken natural laws. According to naturalism, everything in the universe is the result of chance and necessity, not the purposeful design by God. Thus, if naturalism is true, miracles must have a natural explanation, the Bible cannot be God's inspired Word, and Christianity must be false.

DARWINISM AS AN IDEOLOGY

Young people encounter naturalism in grade school, high school, and in college. Through Darwin's theory, young people are taught that the order and complexity in the world is the result of a blind, material process rather than God's decision to create. Thus, Darwinism serves not merely as a scientific theory but as an ideology meant to account for all of life. Darwinian evolution is used to explain everything from our psychology and economics to telling us why we get sick and why we fall in love.

Darwinism is taken for truth in popular culture. For example, in a *Friends* episode, Phoebe and Ross discuss the merits of Darwinian evolution. Shocked to find that Phoebe rejects it, Ross says, "Uh, excuse me. Evolution is not for you to buy, Phoebe. Evolution is scientific fact, like, like, like the air we breathe, like gravity."

WHY ID MATTERS

Intelligent design is important because it challenges the worldview of naturalism, which needs to explain life as the result of a blind, purposeless, material process (i.e., Darwinian evolution). ID is controversial because it shows that living organisms bear the fingerprint of design. According to ID theorists, the signature of design can be seen throughout life but especially in the information processing of DNA. (See Question 8).

Of course, the crucial question is whether ID is true. Darwinists must no longer be able to silence those with whom they disagree. As we will see, ID presents an exciting alternative to Darwinism that not only better accounts for the evidence, but also frees Western culture from its naturalistic straitjacket.

Naturalism is the worldview that sees the universe as a self-contained system of matter and energy that operates by unbroken natural laws.

Ideology is "the body of doctrine, myth, belief, etc., that guides an individual, social movement, institution, class, or large group."⁶

Is Darwinism Scientific Fact?

In the debate over ID and Darwinian evolution, Darwinists proclaim that, in biological origins, they are the true scientists and ID is merely religion masquerading as science. In fact, ID falls squarely within the information and engineering sciences, whereas the Darwinists' inflated claim for the power of natural selection is itself an article of speculative faith.

Natural selection is the hub of Darwin's theory. If Darwin had merely asserted that natural selection accounts for how organisms adapt to changing environmental conditions, that would have been fine. Finch beaks do get thicker and harder during droughts when seeds are harder to crack open. Insects develop insecticide resistance when farmers use toxic chemicals to try to control them. And bacteria develop resistance to antibiotics.

But if finch beak variation, insecticide resistance, and antibiotic resistance were all Darwin's theory attempted to explain, Darwin wouldn't be famous. Instead, Darwin's theory of natural selection is supposed to explain how we got finch beaks (and finches), insects, and bacteria in the first place. If Darwin's theory could do that, he would be justifiably famous. But the evidence for the creative power of natural selection to produce such biological forms is nil. The evidence shows small changes modifying one thing into the same sort of thing; it does not show radical changes transforming one thing into a completely different thing.

Many scientists glimpse the bankruptcy of Darwinism even though they may not be ready to embrace ID. "We should reject, as a matter of principle, the substitution of intelligent design for the dialogue of chance and necessity," writes cell biologist Franklin Harold. Yet he immediately adds, "but we must concede that there are presently no detailed Darwinian accounts of the evolution of any biochemical system, only a variety of wishful speculations."

Natural selection has been shown effective only at producing small-scale evolutionary changes—in other words, microevolution. Microevolutionary change is scarcely noticeable, like moths changing color or size. It is a huge and unwarranted extrapolation to proclaim that natural selection can account for large-scale evolutionary changes—in other words, macroevolution. Macroevolutionary change is profound and radical, like bacteria changing into moths.

The macroevolutionary theory of natural selection lacks all evidence. Even what scant evidence there is for macroevolution does nothing to suggest that natural selection is its cause. Science is about following evidence where it leads. It is not about making stuff up in spite of evidence. It flies in the face of science for Darwinists to proclaim that natural selection evolved complex biological structures. The absence of evidence for such claims is overwhelming.

Natural selection is the process by which nature "selects" the fittest organisms (stronger, quicker, and healthier) to survive and produce offspring.



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Is ID Science?

Darwinists label ID "non-scientific." But there is no good reason for denying ID scientific status. After all, many scientific disciplines (e.g., archaeology, forensic science, and the Search for Extraterrestrial Intelligence) rely upon detecting the work of intelligence. For instance, when an archaeologist finds an odd shaped rock, she has two general options: (1) it was the result of natural forces (wind, erosion, etc.); or (2) it was intelligently designed. Based upon physical markings alone, archaeologists can often determine which explanation is best. ID theorists apply the same scientific reasoning to the natural world.

METHODOLOGICAL NATURALISM

Some critics reject ID because of a rule known as **methodological naturalism**, which limits science to purely material explanations.

Methodological naturalists do not necessarily assume that nature is all that exists; but for the sake of scientific investigation,

they say, one can only appeal to unintelligent causes, such as wind, erosion, and the forces of nature. How could we know that the world is the result of entirely natural causes before we begin the investigation? We would rightly be suspicious of a forensic scientist who begins a homicide investigation by only considering natural causes. Science should be open to both natural and intelligent causes, and thus be able to follow the evidence wherever it leads.

Methodological

Naturalism: Science is the search for naturalistic explanations of the world.

Historical Definition:

Science is the search for the truth of the natural world.

THREE COMMON OBJECTIONS TO ID AS SCIENCE

(1) **Scientific claims must deal with things that are observable, whereas the Designer is unobservable.**

Actually, scientists regularly propose theoretical entities that are unobservable to explain observable phenomena. The Designer of intelligent design is an information source whose activity is as readily the subject of mathematical models and predictions as any physical theory about unobservable entities such as superstrings, dark matter, or multiple universes.⁸

(2) **Science cannot appeal to a Designer because that leaves the origin of the Designer unexplained.**

This is false. For instance, archaeologists regularly conclude that an object was designed, even if they are unaware of the origin of the designer. If every explanation needed a further explanation, then we couldn't explain anything.

(3) **Scientific claims must be testable, but design is supposed to be untestable.**

Critics claim that ID is untestable, but then, they frequently also claim that ID is false. One cannot say, "Design is not testable," and then turn around and say, "Design has been tested and proven false!" A hypothesis cannot be both untestable and tested. In fact, ID has been tested and confirmed across a wide range of disciplines.⁹

Notes

- 1 William Paley, *Natural Theology: Or Evidences of the Existence and Attributes of the Deity Collected from the Appearances of Nature*, reprinted (Boston: Gould and Lincoln, 1852 [1802]).
- 2 Francisco J. Ayala, *Darwin's Gift to Science and Religion* (Washington, D.C.: Joseph Henry Press, 2007), 42.
- 3 See William A. Dembski & Sean McDowell, *Understanding Intelligent Design* (Eugene, OR: Harvest House, 2008).
- 4 William Dembski, *The Design Inference* (Cambridge: Cambridge University Press, 1998), chs. 2 and 7.
- 5 Daniel C. Dennett, *Darwin's Dangerous Idea: Evolution and the Meaning of Life* (New York: Simon & Schuster, 1995), 519.
- 6 <http://dictionary.reference.com/browse/ideology> (last viewed April 2, 2009).
- 7 Franklin Harold, *The Way of the Cell* (Oxford: Oxford University Press, 2001), 205.
- 8 For the role of the mathematical theory of information in characterizing the information-generating properties of the Designer, go to www.evolinfo.org (last accessed April 14, 2009).
- 9 William Dembski and Jonathan Wells, *The Design of Life: Discovering Signs of Intelligence in Biological Systems* (Dallas: Foundation for Thought and Ethics, 2008); Guillermo Gonzalez and Jay W. Richards, *The Privileged Planet: How Our Place in the Cosmos Is Designed for Discovery* (Washington, DC: Regnery, 2004).
- 10 Charles Darwin, *On the Origin of Species*, facsimile 1st ed. (1859; reprinted Cambridge, Mass.: Harvard University Press, 1964), 189.
- 11 *Ibid.*, 194, emphasis added.
- 12 George M. Whitesides, "Revolutions in Chemistry" (Priestly Medalist address), *Chemical & Engineering News* 85(13) (March 26, 2007): 12-17.
- 13 Franklin Harold, *The Way of the Cell: Molecules, Organisms, and the Order of Life* (New York: Oxford University Press, 2001), 235.
- 14 Michael Denton, *Evolution: A Theory in Crisis* (Chevy Chase, MD: Adler and Adler, 1986), 334.
- 15 Bill Gates, *The Road Ahead* (Boulder, Colo.: Blue Penguin, 1996), 228.
- 16 See William A. Dembski & Sean McDowell, *Understanding Intelligent Design* (Eugene, OR: Harvest House, 2008), 81-82.
- 17 Mark Whorton & Hill Roberts, *Holman QuickSource Guide to Understanding Creation* (Nashville, TN: 2008), 308.
- 18 Stephen Jay Gould, *The Panda's Thumb* (New York: Norton, 1980), pp. 20-21.
- 19 Charles Darwin, *The Correspondence of Charles Darwin* 8, 1860 (Cambridge: Cambridge University Press, 1993), 224.
- 20 William A. Dembski, *The End of Christianity: Finding a Good God in an Evil World* (Nashville: Broadman and Holman, 2009), in press. To understand how sin could open the door to the evils we now experience is the subject of William Dembski's *The End of Christianity*.
- 21 Taken directly from William A. Dembski & Sean McDowell, *Understanding Intelligent Design* (Eugene, OR: Harvest House, 2008), 190-92.

What is Irreducible Complexity?



Charles Darwin offered a test for his theory of evolution.

In *The Origin of Species* he said, "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."¹⁰ Since

Darwinian evolution holds that all complex biological organisms in nature emerged through the step-by-step process of natural selection acting on random mutation, the discovery of a system that could not have formed in this manner would disprove the theory.

TESTING DARWINISM

In 1996, biochemist Michael Behe put Darwin's theory to the test. In his book *Darwin's Black Box*, Behe highlighted certain biological systems in the molecular world that are unlikely to have formed through "numerous, successive, slight modifications," as Darwin's theory requires. Behe introduced the concept of **irreducible complexity**, which describes a system composed of multiple, interworking parts, each required for function. Remove one part, and the entire system fails.

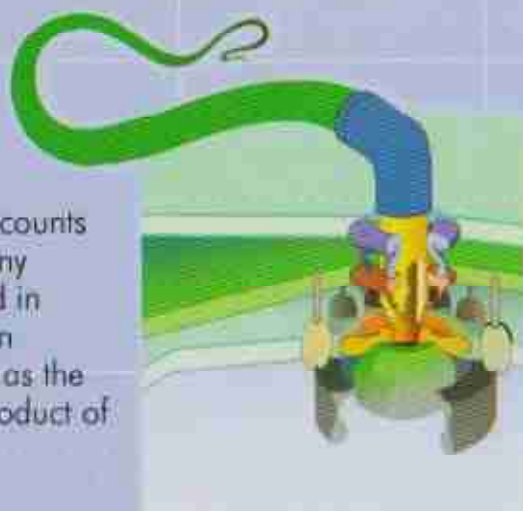
Irreducible complexity is easily understood by considering a mousetrap. Standard mousetraps have multiple, interdependent parts—a wooden platform, a metal bar, a spring, a catch, and a hammer—each of which is necessary for a functioning mousetrap. To catch mice, all the parts must be in the right place at the right time. If one part is missing, the entire system ceases to work.

An irreducibly complex system (such as the mousetrap) is unlikely to emerge suddenly because, as Darwin insisted, evolution is a gradual process. He famously said that natural selection "can never take a leap, but must advance by the shortest and slowest steps."¹¹ An irreducibly complex system cannot simply pop into existence for that would suggest something besides natural selection. Furthermore, evolution could not develop such a system through "numerous, successive, slight modifications" because any simpler system would lack the parts to function, and, therefore, have no reason to exist.

IRREDUCIBLE COMPLEXITY IN NATURE

Behe's controversial claim is that irreducibly complex biological systems exist in nature and refute Darwinism. His most famous example is the bacterial flagellum, a whip-like tail that propels certain bacteria through their watery environment. Harvard scientist Howard Berg called it the most efficient motor in the universe. The flagellum can spin up to 100,000 rpm and change direction in a quarter turn. Like a mousetrap, the flagellum has multiple interworking parts (at least nine), each of which is necessary for function.

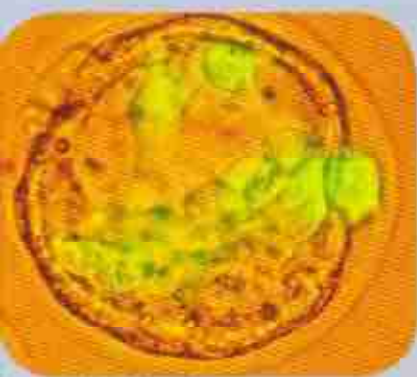
There are no detailed, step-by-step Darwinian accounts for the emergence of the bacterial flagellum or any other irreducibly complex biological system found in nature. Yet we do know that intelligent beings can produce such systems. Molecular machines such as the bacterial flagellum are best understood as the product of intelligent design.



Can Darwinism Explain Life's Origin?

In an 1871 letter to Joseph Hooker, Darwin surmised that life may have begun with chemical reactions in a "warm little pond." Since the cell seemed unremarkable through the microscope of his day, Darwin believed it was rather simple, without order or design. Evolutionary biologists of the late 1800s believed the cell was like a glob of jelly that could easily be constructed through the combination of simple chemicals.

Yet the discovery of the electron microscope in the 1930s completely transformed our understanding of the cell. Scientists now think of the cell as an automated city. The scientific literature is full of comparisons between the cell and modern engineering. In fact, nearly every feature of our own advanced technology can be found in the cell. Examples include transportation, communication, waste management, and defense.



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Given what we have learned about the complexity of the cell, it should come as no surprise that naturalistic origin-of-life research is at a complete standstill. Harvard Chemist George Whitesides confessed that he has "no idea" ¹² about the origin of life. Biologist Franklin Harold admits that the origin of life is one of the "unsolved mysteries in science." ¹³

Nevertheless, scientists have three key strategies for explaining the cell apart from design:

1. **Chemical Evolution:** Can life emerge via chemical reactions?

Different experiments have attempted to simulate the early conditions of life on Earth to see if life emerges naturally. While such experiments have generated amino acids (the building blocks of protein), none have produced life (the simplest of which being the cell).

2. **Self-organization:** Does matter have the inherent capacity to organize itself into life? While natural process can produce simple specified structures (such as ice crystals or ripples in the sand), nature cannot generate structures that are both specified and complex (such as the message "I Love Mary" or the information content of DNA). Dean Kenyon, one of the original proponents of self-organization, has since abandoned his theory for ID.

3. **Panspermia:** Could life have begun elsewhere in the universe and been seeded on Earth? Some scientists believe life "rode" to Earth on the back of meteorites (*undirected panspermia*), and others believe Earth was seeded with life by aliens (*directed panspermia*). These proposals only address how life got to Earth, not its origin. The fact that scientists seriously entertain panspermia illustrates a powerful point: naturalistic origin-of-life research is at a complete standstill.

Where Does Biological Information Come From?

In 2004, leading atheistic philosopher Antony Flew shocked the academic world when he announced that he had changed his mind about God. He cited the information content of DNA as one of the key reasons for his conversion. DNA provides one of the best arguments for intelligent design.

In a widely cited speech, Nobel laureate David Baltimore remarked, "Modern biology is a science of information." With the discovery of the structure of DNA in 1953, scientists realized that the information for encoding proteins is carried in four genetic bases—guanine (G), adenine (A), thymine (T), and cytosine (C). These four bases function like letters of an alphabet, which is why biologists commonly refer to DNA, RNA and proteins as carriers of "information."

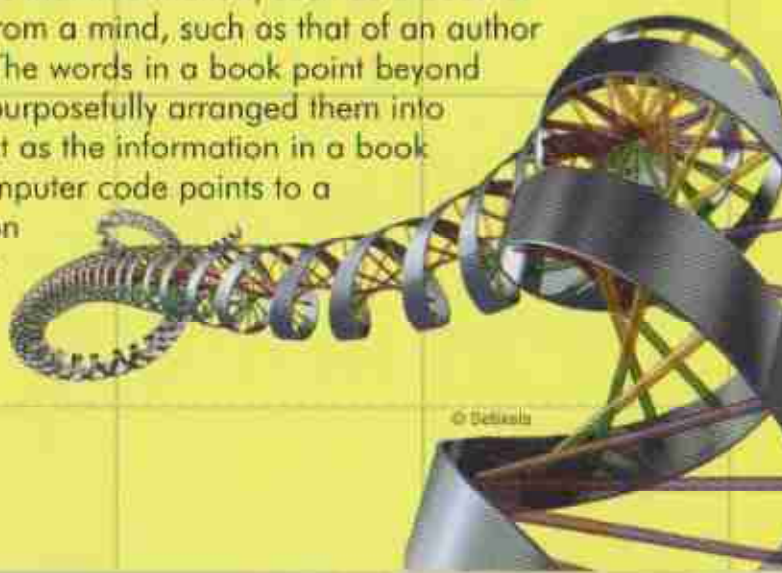
The information-storage capacity of DNA far surpasses human technology. Molecular biologist Michael Denton notes that, for all the different types of organisms that have ever existed, the necessary information in their DNA for the construction of their proteins "could be held in a teaspoon and there would still be room left for all the information in every book ever written."¹⁴ But DNA not only stores information, it also processes it. Hence Bill Gates compares DNA to a computer program, though far more advanced than any software humans have invented.¹⁵

The challenge for origin-of-life researchers is to explain how the information (specified complexity) in living organisms could arise apart from intelligent causation. There is currently no working naturalistic theory for the origin of life. Scientists regularly claim that a solution is at hand, but details are lacking. On their own, natural forces are simply incapable of generating information.

A SOLUTION

By contrast, ID offers a solution that can explain the information content of DNA. Imagine you are walking on the beach and notice a message, "John loves Mary," inscribed in the sand. What would you conclude? Since natural causes (wind, water, and erosion) would be out of the question, you would likely believe that it was the product of design. Information points to a mind.

"Ordinary experience tells us that information, such as a book or computer program, arises from a mind, such as that of an author or computer programmer. The words in a book point beyond themselves to a mind who purposefully arranged them into a meaningful sequence. Just as the information in a book points to an author and computer code points to a programmer, the information content of organisms points to an information source, an intelligent designer."¹⁶



Is the Universe Designed?

Imagine you discover an abandoned cabin in the mountains. As you approach the cabin, you notice something strange. Your favorite meal is cooking in the oven, the TV is turned on to your favorite program, and all your favorite books, DVDs, and video games are lying on the table. What would you conclude? The best explanation would clearly be that someone was expecting your arrival. Scientists have recently learned that the universe is much like this cabin—it's crafted uniquely for us.

There are nineteen known physical laws that must each be exquisitely fine-tuned for life—not just life on Earth, but for the existence of any complex life. Examples of these include the law of gravity, the strong nuclear force, and the electromagnetic force. The slightest change in any of these and the universe becomes uninhabitable for complex life.

For instance, if the initial mass of the universe had varied by any more than a single grain of table salt, the universe would not exist. The universe either could not have expanded, or it would have expanded so rapidly that it would spread out to nothingness almost immediately.¹⁷ As Goldilocks would say, the universe is “just right” for life.

Design is also apparent in the multiple factors that must be just right for a habitable planet. Life cannot flourish anywhere in the universe. In fact, most places are extremely hostile to life. Consider a few examples:

1. **Life requires the right type of galaxy.** Of the three types of galaxies, only spiral galaxies can support life.
2. **Life requires the right location in the galaxy.** Earth is situated in a unique location in the Milky Way to avoid harmful radiation.
3. **Life requires the right type of star.** While most stars are too large, too luminous, or too unstable to support life, our Sun is just right.
4. **Life must have the right relationship to its host star.** If Earth's distance from the sun varied even slightly, water would either freeze or evaporate, rendering Earth uninhabitable for complex life.
5. **Life needs surrounding planets for protection.** Large surrounding bodies (such as Jupiter or Uranus) are needed as protection from incoming comets.
6. **Life requires the right type of moon.** To be habitable, Earth needs a moon of a certain size and distance. The moon creates a stable, life-friendly environment by stabilizing Earth's tilt.

Many other factors are needed for a habitable planet. But the point should be clear—the universe as a whole and Earth in particular are just right for life. The best explanation for why the universe is just right for life is that an Intelligent Designer made it that way.

What About Bad Design and Evil?

BAD DESIGN

Critics of intelligent design point out cases of supposedly bad design in nature and use these to argue against the very existence of design. In their view, bad design means no design—period.

The classic formulation of this criticism can be found in Stephen Jay Gould's



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The Panda's Thumb: "If God had designed a beautiful machine to reflect his wisdom and power, surely he would not have used a collection of parts generally fashioned for other purposes.... Odd arrangements and funny solutions are the proof of evolution—paths that a sensible God would never tread but that a natural process, constrained by history, follows perforce."¹⁸

Gould here is finding fault with the "panda's thumb," a bony extrusion that helps the giant panda strip bamboo of its hard exterior to make

it edible. But is this really a case of bad design? In fact, the panda's thumb seems an extremely efficient instrument for stripping bamboo. How does Gould know what a "sensible God" would do, especially since he offers no design improvement on the panda's thumb? In the vast majority of cases where Darwinists find fault with biological design, good functional reasons exist for the design in question and no detailed proposal exists for improving it.

EVIL DESIGN

A more troubling challenge to design, however, comes from natural evil. Nature contains disease, decay, and death. It contains parasites that seem ingeniously and malevolently designed to harm other organisms. Troubled by such perversity in nature, Darwin wrote, "I cannot persuade myself that a beneficent and omnipotent God would have designedly created the Ichneumonidae [certain parasitic wasps] with the express intention of their feeding within the living bodies of Caterpillars."¹⁹

This nasty little creature first injects a caterpillar with an anesthetic to put it to sleep and then deposits its eggs inside it. When the eggs hatch, they carefully eat the caterpillar, sparing the vital organs so that they have a fresh supply of food till the caterpillar dies.

In responding to the charge of evil design, we need to be clear about two things. First, the evilness of design does not refute the reality of design. It may raise questions about the morality of the designer. But it cannot disprove design as such, which can be detected through the methods of science. Second, as Christians, we believe that the evil design that we see in nature does not represent God's original design-plan for creation but rather its corruption through the sin of humanity.

Christianity has always taught that the world we inhabit is not the world God originally intended. The natural evil we see around us (such as sickness, parasites, and death) as well as the moral evil we inflict on each other (such as theft, murder, and torture) are not what God wanted for us from the start but came upon us through sin.²⁰



Quick Response Guide to Common Objections

OBJECTION #1: ID makes no predictions.

RESPONSE: ID predicts that there should be structures beyond the reach of chance-based Darwinian mechanisms. And there are (for example, the bacterial flagellum).

OBJECTION #2: ID is religiously motivated.

RESPONSE: ID constructs a scientific case against Darwinian evolution. The motivation of its advocates is irrelevant. Stephen Hawking hopes his work in physics will help us understand the mind of God. Steven Weinberg hopes his work in physics will help to destroy religion. Do their motivations invalidate their science? Of course not.

OBJECTION #3: ID argues from ignorance.

RESPONSE: ID doesn't just identify holes in Darwinian evolution, but it also explores positive features of design present in biological systems, such as the specified complexity in DNA and the molecular machinery inside cells.

OBJECTION #4: ID violates the scientific consensus.

RESPONSE: So did Copernicus, Galileo, Kepler, Newton, and even Darwin himself! The point of science is not to protect a consensus but to provide an accurate understanding of the universe, and that requires a readiness to break with consensus.

OBJECTION #5: ID is a science-stopper.

RESPONSE: ID encourages science in ways that Darwinism hinders. Darwinism, for example, predicts that a lot of DNA is junk. Intelligent design encourages the ongoing search for function in DNA. In this regard, ID has been vindicated over Darwinism. ID keeps Darwinism honest. It therefore can't be a science-stopper.

OBJECTION #6: ID violates the scientific method.

RESPONSE: The scientific method tests hypotheses in light of evidence. ID does this too. For example, it tests the hypothesis that irreducibly complex systems are designed by determining whether Darwinian evolutionary mechanisms are capable of producing them.

OBJECTION #7: Imperfection in living things counts against design.

RESPONSE: Imperfection speaks to the quality of design, not to its reality. No one seriously thinks that design must be perfect to be detectable. Because ecological balance demands that all life forms must die and be recycled, some imperfection is unavoidable.

OBJECTION #8: ID is Bible-based.

RESPONSE: While the findings of ID are consistent with the Bible, the evidence for design comes from cosmology, physics, chemistry, biology, information theory, and other scientific disciplines.

OBJECTION #9: No peer-reviewed journal articles supporting ID exist.

RESPONSE: Although articles supporting ID have difficulty gaining a fair hearing, a growing number of peer-reviewed journal articles and books supporting design do in fact exist (see www.discovery.org/a2640).

OBJECTION #10: No credible scholars support ID.

RESPONSE: University of Georgia professor Henry Schaefer III, one of the most widely cited chemists in the world with over 1,000 publications, supports ID. So do other prominent scientists at places like Princeton, USC, and Baylor.