

You are out on a walk. You see a stick leaning against a tree. You observe the stick and the tree. From your observation, can you conclude that it is an evidence of intelligent activity? Perhaps not. Branches often break from trees, and sometimes lean against a tree. Such an event does not require any special explanation. Of course, a person *might* have placed the stick against the tree for a purpose, but there is no need to invoke this explanation if a more “natural” explanation is available.

But suppose you find three sticks leaning against each other in such a way that removal of any one stick would cause the other two to fall to the ground. Such a “tripod” could not be the result of a gradual accumulation of sticks. All three sticks must have been placed simultaneously. Is it reasonable to suppose that this could happen by chance? The probability of such an event happening by itself is unreasonably low. An intelligent person must have arranged the sticks for a purpose that may or may not be evident.

The key to understanding design

What distinguishes between intelligent design in the tripod arrangement as contrasted with the leaning stick? Perhaps two features: complexity and functional interdependence. The complexity of the “tripod” is represented by its three parts. Its functional interdependence is seen in the fact that none of the parts can be removed without destroying the tripod. A structure that is composed of three or more parts, all of which must come into relationship simultaneously, is best interpreted as the result of intelligent design. Although it can always be argued that such a structure *could* have originated by chance, such an interpretation would stretch the credulity of most people.

Can such an argument be reasonably extended to nature? If so, do we see evidence in nature of intelligent design?

The argument from design

For centuries the idea that nature resulted from intelligent design was accepted without question or controversy. The Scriptures affirm that God can be seen in nature. For example, listen to the psalmist: “O Lord, our Lord, how majestic is your name in all the earth!

When I consider your heavens, the work of your fingers...., what is man that you are mindful of him?” (Psalm 8:1, 4, 5 NIV). Perhaps Paul makes the strongest case in Romans 1:19 and 20, where he argues that the evidence of God in nature is so clear that no one has an excuse for denying His existence, power, and sovereignty. For many authors, the evidences of design in nature point to the Creator God of the Bible. William Paley is a case in point.

Is there design in nature?

Intelligent design in nature points to a Creator Designer

Paley and the argument from contrivance. Paley claimed¹ that nature is full of features that show evidence of design. He called them “contrivances,” and compared them to human-made devices or machines. Paley’s argument can be phrased as: The existence in living organisms of features that function like mechanical devices to achieve some purpose are evidence that they were created by a Designer.

Paley’s most famous illustration is a watch. Suppose you found a watch, having never seen one before. Would it not be obvious that the watch had been crafted and was designed for a purpose, even if the purpose was not understood? Likewise, many features of living organisms function as machines. If we recognize the activities of a designer when we observe mechanical devices, we can also recognize the activities of a designer when we observe similar features in living organisms. According to Paley, nature exhibits the properties of design, leading us to recognize the God of nature.

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Charles Darwin and the argument against design. Early opposition to Paley came from Charles Darwin. Darwin admitted that even though he was “charmed” by Paley’s arguments, he could not blame God for designing all the evil in nature.² Darwin proposed that God was so far removed from nature that He did not intervene and was not responsible for the state of nature. In effect, Darwin claimed that nature was not designed, and therefore did not point to a designer. He proposed that unassisted natural processes were sufficient to explain the adaptive features of living organisms, through the process of natural selection. Apparently, Darwin would rather have God good but in the distance than close to us and evil. Most of us would probably agree. But was Darwin’s argument from natural selection valid?

Darwin himself identified a method by which his theory might be refuted. In Chapter 6 of his book, the *Origin of Species*,³ Darwin stated: “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.”

Darwin claimed he could find no such cases, but others have made the opposite claim.

Arguments for design

Clearly, the argument *from* design is not valid if nature is not designed. Darwin shifted the focus of the debate to whether nature is truly designed. Thus, our interest focuses on the argument *for* design.

The argument from “irreducible complexity.” Michael Behe of Lehigh University in Pennsylvania is one of the current leaders of argument for design.⁴ He bases his argument on what he calls “irreducible complexity.” For an illustration, he uses an ordinary mousetrap composed of a platform, a bait pan, a lever, a “guillotine,” a spring, and some staples. The parts of the mousetrap work together to perform a function—catching mice. Let the mousetrap

represent an organ that had evolved from some simpler ancestral structure. What would the ancestral structure look like, and what function would it have? How could a mousetrap be simplified, yet retain any function? Imagine removing any one of the components of the mousetrap—the resulting structure would have no function at all. The mousetrap is irreducibly complex. If any such example could be found among living organisms, Darwin’s theory would “absolutely break down.” According to Behe, the cilium is one such example.

A cilium is a small hair-like structure that moves back and forth in a fluid medium, providing a method of swimming in certain one-celled organisms. Cilia are also present in our respiratory tracts, and their movements help remove particles from our lungs. At least three parts are required for active movement: a part that moves; a link to an energy supply; and an “anchor” to control the position of the movable part. In the case of a cilium, the moving part is composed of molecules of tubulin; energy for movement is supplied through the activities of molecules of dynein; and the parts of the cilium are held together by molecules of nexin. Without any one of these, the cilium has no function. Thus the cilium appears to be irreducibly complex.

As one might expect, those who are philosophically committed to evolution refuse to accept the argument from irreducible complexity. However, this rejection is based on philosophical, not empirical grounds, as evidenced by the total lack of demonstration of evolutionary claims.

The argument from improbability. Some circumstances seem so unexpected that one suspects there must be something more than chance involved. Most scientists are willing to attribute a result to chance if it could be expected to occur by chance as often as five times in 100 trials. Some scientists will lower the acceptable odds to one chance in 1,000 trials, depending on the nature of the event. But there are limits to what anyone will reasonably accept as the result of chance. If the probability of an event is exceedingly low, it is reasonable to suppose that it did not happen as the result of chance. If the event also seems

to have a purpose, it is reasonable to suppose that the event was guided by an intelligent mind.

Darwin admitted that he “shuddered” when he thought of the problem of the evolution of the human eye. He tried to make a case for the evolution of the eye by pointing to a variety of less-complex eyes in other animals, and suggesting that they might represent stages through which a more complex eye might have evolved. However, it is not clear that he convinced even himself. The evolution of the eye would require an elaborate series of improbable events that most people would consider unlikely to occur without a designer.⁵

The argument from mystery

Many arguments for design have been based on a lack of understanding of a particular process. Before the mechanism for the circulation of the blood was understood, one might have been tempted to claim that blood circulation was a mystery beyond our understanding, and this in itself was evidence for the workings of a superior intellect. Problems arose when the mechanism was discovered, seemingly making God no longer necessary. Examples such as this have led to a general suspicion of any type of argument for design. Such “arguments from mystery” contain two features: ignorance of the mechanism of a particular phenomenon, and an appeal that the phenomenon is a mystery beyond our understanding. Hence we have the “god-of-the-gaps” argument.

The argument from irreducible complexity should be contrasted with the argument from mystery. The first is based on two principal features: the system must have an identified function, and the components of the system must be known and identified. Thus, this is an argument from knowledge, and is completely different from the argument from mystery.

Examples of design in nature

Many examples of design in nature can be described, but we shall note a few here.


The existence of the universe.⁶ The existence of the universe depends on a precise combination of finely balanced physical constants. If any of several were different, the universe could not exist.

explanation, except perhaps to wonder why people do such things. Most scientists reject this argument, since the practice of science depends on the existence of real patterns to be explained. All observers agree that nature at least appears to be designed.

Evil design.¹¹ Many features of organisms seem “designed” for killing or causing disease or pain. The malarial parasite is an example. It does not seem right to blame God for designing the causes of death and disease. On the other hand, if God did not design the “evil” things of nature, why claim that He designed the “good” things of nature? The presence of evil in nature does not refute the argument for design, but may raise questions about the nature or character of the designer. The biblical explanation is that this world is the battleground between two designers, a Creator and a corrupter. The result is that nature sends a mixed signal: both good and evil are present.¹²

Conclusion

The “argument for design” was widely ignored in the century after Darwin, in part because knowledge of living systems was so incomplete that the gaps could be filled in with imagination. As biological knowledge has increased, the argument for design has been revived and expressed in more sophisticated ways, such as the argument from “irreducible complexity.” The existence of certain features that could not survive in intermediate stages is evidence of a Designer. It is also evidence of a Designer God who created by special intervention—Creation—and not through a continuous process such as evolution. The argument from irreducible complexity is an argument that supports an interventionist, discontinuous creation.

According to Paul in Romans, nature is clearly designed, but not all are open to recognize the Designer. Nature can be properly understood only in the light of God’s special revelation in the Scriptures. Guided by the Bible, we can join with the psalmist in praise to the Creator: “The heavens are telling the glory of God: and the firmament proclaims His handiwork. . . . Their voice goes out through all the Earth, and their words to the end of the world” (Psalm 19:1, 4). 

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Notes and references

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2. See N. C. Gillespie, *Charles Darwin and the Problem of Creation* (University of Chicago Press, 1979), Chapter 7. For

example, Darwin stated that he could not believe in a God that made cats to play with mice, or that designed tiny parasitic wasps to eat out the insides of a caterpillar.

3. Charles Darwin, *The Origin of Species*, 6th ed. (New York: Penguin Books, 1958).
4. M. J. Behe, *Darwin’s Black Box* (New York: The Free Press, 1996).
5. For a recent discussion of eye evolution and design, see D. E. Nilsson and S. Pelger, “A Pessimistic Estimate of the Time Required for an Eye to Evolve,” *Proceedings, Royal Society of London*, 1994, B 256:53-58. For a response to this paper, see J. T. Baldwin, “The Argument From Sufficient Initial System Organization as a Continuing Challenge to the Darwinian Rate and Method of Transitional Evolution,” *Christian Scholar’s Review* 24 (1995), pp. 423-443.
6. For a further discussion of this point, see J. D. Barrow and F. J. Tipler, *The Anthropic Cosmological Principle* (New York: Oxford University Press, 1986).
7. For a popular-level discussion of this from a somewhat mystical non-Christian viewpoint, see J. E. Lovelock, *Gaia: A New Look at Life on Earth* (New York: Oxford University Press, 1987); for a more conventional discussion, see R. E. D. Clark, *The Universe: Plan or Accident?* (Philadelphia: Muhlenberg Press, 1961).
8. For an extreme argument of this type, see R. Deaconess, *The Blind Watchmaker* (New York: Norton and Co., 1986). Other examples include the argument of emergent complexity, such as S. Kauffman, *The Origins of Order* (New York: Oxford University Press, 1993). For an evaluation of Kauffman’s book, see J. Horgan, “From Complexity to Perplexity,” *Scientific American* 272:6 (1995), pp. 104-109.
9. An example of this argument is in S. J. Gould, *The Panda’s Thumb* (New York: Norton and Co., 1980).
10. A classic statement of this argument is D. Hume, *Dialogues Concerning Natural Religion* (1779), (New York: Penguin Books, 1990).
11. For example, see D. L. Hull, “The God of the Galapagos,” *Nature* 352 (1991), pp. 485-486. See also Chapter 8 in P. J. Bowler, *Evolution: The History of an Idea* (Berkeley: University of California Press, 1984).
12. For a biblical approach to this problem, see John T. Baldwin, “God, The Sparrow, and the Emerald Boa,” *College and University Dialogue* 8:3 (1996), pp. 5-8.—Editors.