

THE POSITIVE CASE FOR DESIGN

[updated v..3.0]

By Casey Luskin

Many critics of intelligent design have argued that design is merely a negative argument against evolution. This could not be further from the truth. Leading design theorist William Dembski has observed that “[t]he principle characteristic of intelligent agency is *directed contingency*, or what we call *choice*.”¹ By observing the sorts of choices that intelligent agents commonly make when designing systems, a positive case for intelligent design is easily constructed by elucidating predictable, reliable indicators of design.

Design can be inferred using the scientific method of observation, hypothesis, experiment, and conclusion. Design theorists begin with observations of how intelligent agents act when designing, to help them recognize and detect design in the natural world:

Table 1. Ways Designers Act When Designing (Observations):

(1) Intelligent agents think with an “end goal” in mind, allowing them to solve complex problems by taking many parts and arranging them in intricate patterns that perform a specific function (e.g. complex and specified information):

“Agents can arrange matter with distant goals in mind. In their use of language, they routinely ‘find’ highly isolated and improbable functional sequences amid vast spaces of combinatorial possibilities.”²

“[W]e have repeated experience of rational and conscious agents-in particular ourselves-generating or causing increases in complex specified information, both in the form of sequence-specific lines of code and in the form of hierarchically arranged systems of parts. ... Our experience-based knowledge of information-flow confirms that systems with large amounts of specified complexity (especially codes and languages) invariably originate from an intelligent source from a mind or personal agent.”³

(2) Intelligent agents can rapidly infuse large amounts of information into systems:

“Intelligent design provides a sufficient causal explanation for the origin of large amounts of information, since we have considerable experience of intelligent agents generating informational configurations of matter.”⁴

“We know from experience that intelligent agents often conceive of plans prior to the material instantiation of the systems that conform to the plans—that is, the intelligent design of a blueprint often precedes the assembly of parts in accord with a blueprint or preconceived design plan.”⁴

(3) Intelligent agents ‘re-use’ functional components that work over and over in different systems (e.g., wheels for cars and airplanes):

“An intelligent cause may reuse or redeploy the same module in different systems, without there necessarily being any material or physical connection between those systems. Even more simply, intelligent causes can generate identical patterns independently.”⁵

(4) Intelligent agents typically create functional things (although we may sometimes think something is functionless, not realizing its true function):

“Since non-coding regions do not produce proteins, Darwinian biologists have been dismissing them for decades as random evolutionary noise or ‘junk DNA.’ From an ID perspective, however, it is extremely unlikely that an organism would expend its resources on preserving and transmitting so much ‘junk.’”⁶

¹ William A. Dembski, *The Design Inference* (Cambridge University Press, 1998), pg. 62.

² Stephen C. Meyer, “The Cambrian Information Explosion,” in *Debating Design*, pg. 388 (William A. Dembski and Michael W. Ruse eds., Cambridge University Press, 2004), pg. 388.

³ Stephen C. Meyer, “The origin of biological information and the higher taxonomic categories,” *Proceedings of the Biological Society of Washington*, 117(2):213-239 (2004).

⁴ Stephen C. Meyer, et. al., “The Cambrian Explosion: Biology’s Big Bang,” in *Darwinism, Design, and Public Education* (John A. Campbell and Stephen C. Meyer eds., Michigan State University Press, 2003), pg. 386.

⁵ Paul Nelson and Jonathan Wells, “Homology in Biology,” in *Darwinism, Design, and Public Education*, pg. 316.

These observations can then be converted into predictions about what we should find if an object was designed. This makes intelligent design a scientific theory capable of generating testable predictions:

Table 2. Predictions of Design⁷ (Hypothesis):

- (1) Natural structures will be found that contain many parts arranged in intricate patterns that perform a specific function (e.g. complex and specified information).
- (2) Forms containing large amounts of novel information will appear in the fossil record suddenly and without similar precursors.
- (3) Convergence will occur routinely. That is, genes and other functional parts will be re-used in different and unrelated organisms.
- (4) Much so-called “junk DNA” will turn out to perform valuable functions.

These predictions can then be put to the test by observing the scientific data, leading to conclusions:

Table 3. Examining the Evidence (Experiment and Conclusion):

Line of Evidence	Data (Experiment)	Prediction Confirmed? (Conclusion)
(1) Biochemistry	Natural structures have been found that contain many parts arranged in intricate patterns that perform a specific function (e.g. complex and specified information), such as irreducibly complex machines in the cell. The bacterial flagellum is a prime example. The specified complexity of protein bonds, or the simplest self-reproducing cell are other examples. ⁸	Yes.
(2) Paleontology	Biological novelty appears in the fossil record suddenly and without similar precursors. The Cambrian explosion is the prime example. ⁹	Yes.
(3) Systematics	Similar parts have been found in organisms that even Darwinists see as separated by more closely related forms that do not contain the similar parts in question. Clear examples include genes controlling eye or limb growth in different organisms whose alleged common ancestors are not thought to have had such forms of eyes or limbs. ¹⁰	Yes.
(4) Genetics	Genetic research continues to uncover functions for “junk-DNA,” include functionality for pseudogenes, introns, LINE, and ALU elements. Examples of unknown DNA functions persist, but design encourages researchers to investigate functions, whereas Darwinism has caused some scientists to wrongly assume that non-coding DNA is junk. ¹¹	Yes.

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⁶ Jonathan Wells, “Using Intelligent Design Theory to Guide Scientific Research,” *Progress in Complexity, Information, and Design*, Vol 3.1, Nov., 2004.

⁷ “Retrodictive” predictions are common in new scientific theories. For example, Einstein’s work on relativity attempted to account for the already-understood inability of Newton’s laws of motion to accurately predict physical mechanics at very high speeds. Even Thomas Kuhn observed that new scientific theories succeed when they better account for previously-existing data. (See Kuhn, T., *The Structure of Scientific Revolutions*, (University of Chicago Press, 1972), pgs. 78-80.) Yet design theory is also forward-looking, predicting that we will continue to discover functions for “junk-DNA” and specified complexity in biology.

⁸ William A. Dembski, *No Free Lunch*, Chapter 5 (Rowman and Littlefield, 2002); Michael J. Behe, *Darwin’s Black Box*, Chapter 3 (Free Press 1996); Behe, M. and Snoke, D.W., “Simulating evolution by gene duplication of protein features that require multiple amino acid residues,” *Protein Science*, 13 (2004); Scott N. Peterson and Claire M. Fraser, “The complexity of simplicity,” *Genome Biology* 2 (2001):1-7.

⁹ Mayr, E., *One Long Argument: Charles Darwin and the Genesis of Modern Evolutionary Thought* (Harvard University Press, 1991), p. 138; Valentine, J.W., Jablonski, D., Erwin, D. H., “Fossils, molecules and embryos: new perspectives on the Cambrian Explosion,” *Development* 126:851-859 (1999).

¹⁰ Quiring, R., et al. “Homology of the eyeless gene of drosophila to the small eye in mice and aniridia in humans,” *Science* 265:78 (1994); See also *infra*, Ref. #5.

¹¹ Hirotsune S. et al., “An expressed pseudogene regulates the messenger-RNA stability of its homologous coding gene,” *Nature* 423:91-96 (2003); “The Unseen Genome: Gems among the Junk” by Wayt T. Gibbs, *Scientific American* (November, 2003); Hakimi, M.S. et. al., “A chromatin remodelling complex that loads cohesin onto human chromosomes,” *Nature*, 418:994-998 (2002); Morrish, T. A., et al., “DNA repair mediated by endonuclease-independent LINE-1 retrotransposition,” *Nature Genetics*, 31(2):159-165 (June, 2002).