

Handout for TrueU Lesson 7: DNA by Design, Part 3—Information and Intelligence

1. What makes an explanation about a past event the “best” explanation?
2. What is the only cause operating today that produces new functional information, such as the digital code that directs the assembly of airplane parts that support the function of flying? How does this observation help identify intelligent design as the best explanation of the origin of DNA’s digital code, which directs the assembly of the cellular components needed for life?
3. What two features, when they are both present in a natural object or event, reliably enable us to detect the work of intelligent design?
4. Why did most scientists, until recently, believe that much of DNA is useless “junk”? What sorts of functions (similar to computer software) do we now know that such DNA has?
5. What is “methodological naturalism”? Does it limit or enhance a scientist’s ability to find the truth about life’s origin? Why?
6. How might you discuss intelligent design with someone who embraces naturalism (materialism)?
7. Which pattern (below) in a complex thing reliably leads us to conclude that it was designed?
 - Fabrication: A pattern we *impose* on an object or event (it’s *not objectively* independent).
 - Specification: An *independent* meaningful pattern (Mt. Rushmore matches presidential faces).Suppose you shoot an arrow thoughtlessly into a wall. Which pattern above is illustrated by painting a target around wherever your arrow hit and saying to a friend: “look at the effect of my archery skill.” Which pattern above would be illustrated if your friend removed your arrow and then shot it into the exact same spot from 50 feet away?
8. How does this lesson strengthen the argument for the intelligent design of life (and by implication, God’s existence)? Why do you think many people seem determined to explain life’s origin without reference to the kind of intelligent designer whom theists worship, namely a God who interacts in special ways with humans?

Answer Key to TrueU Lesson 7

1. What makes an explanation about a past event the “best” explanation?

It should involve a cause that is known by experience today to produce the kind of effect under investigation. If all the rival theories utilize causes that are known to be inadequate for the job, then this further identifies the remaining theory as “best.”

2. What is the only cause operating today that produces new functional information, such as the digital code that directs the assembly of airplane parts that support the function of flying? How does this observation help identify intelligent design as the best explanation of the origin of DNA’s digital code, which directs the assembly of the cellular components needed for life?

“The creation of new information is habitually associated with conscious activity,” so wrote information theorist Henry Quastler.³ Conscious activity is intelligent design. Intelligence is the only cause known by experience today to produce the kind of effect (functional information which is necessary for the origin of life) under investigation. All the rival theories utilize causes (random events or repetitious events determined by natural laws) that are known to be inadequate for the job, and so this further identifies intelligent design theory as the best explanation of life’s origin.

3. What two features, when they are both present in a natural object or event, reliably enable us to detect the work of intelligent design?

Complexity and specificity. *Complexity* can be expressed as how improbable it would be to get that same thing a second time by an unintelligent process. *Specificity* refers to the match between the thing in question and a specific independent meaningful pattern or functional outcome. An ordinary mountain face is complex, but lacks specificity. A presidential mountain face on Mount Rushmore is both highly complex and highly specified. DNA’s code, like the Mount Rushmore presidential faces, is highly complex and highly specified, and thus it must have been intelligently designed.

4. Why did most scientists, until recently, believe that much of DNA is useless “junk”? What sorts of functions (similar to computer software) do we now know that such DNA has?

Darwinists expected the trial and error process of natural selection acting on random mutations to leave behind in the genome a junkyard full of useless DNA segments, among which only a small percentage of DNA would code for something functional, such as proteins. This prediction seemed to be confirmed until recently when scientists began to find unmistakable evidence of numerous functions for so-called “junk DNA.” Much of what was formerly thought to be junk in “non-coding regions” is now known to have function. Some of its functions like the operating system of a computer (but more sophisticated than human technology). For instance, so-called “junk DNA” governs *when* the protein-encoding parts of DNA are to be accessed, *where* the constructed proteins are to be used, and more.

Information processing systems found both in computers and cells include:

- Nested coding of information
- Files within folders hierarchical filing system
- Distributed storage and retrieval informational modules
- Operating systems such as Microsoft’s “Windows” and the Macintosh OS.

³ Henry Quastler, *The Emergence of Biological Organization* (New Haven: Yale University Press, 1964), 16.

5. What is “methodological naturalism”? Does it limit or enhance a scientist’s ability to find the truth about life’s origin? Why?

Methodological naturalism may be described as the idea that intelligent causes should not be considered in scientific inquiry because only material causes are allowed. Richard Dawkins revealed in his interview with Ben Stein on the movie *Expelled* (www.themovieexpelled.com) that he would be willing to break this methodological rule in origin of life studies, but only if (previously-evolved) alien intelligent life is intelligent designer, rather than God. Ben Stein then commented in *Expelled*: “So Professor Dawkins was not against intelligent design, just certain types of designers, such as God.”

A further irony here is that design theorists, *as scientists*, only infer the *operation* of intelligence, *not* the *identity* of the designing intelligence. Many design theorists go further than this, but only by using additional fields of knowledge beyond science, such as human history (e.g., evidence for Jesus’ resurrection). Methodological naturalism artificially *limits* a scientist’s ability to find the truth about origins. The reason for this is because it limits the possible answers to the question even before investigation begins. The biased approach of methodological naturalism is a different issue than whether one concludes, after inquiry, that material causes were responsible for the effects in many cases (e.g., microevolution, or limited biological change), but not in other cases (e.g., origin of the universe and life). The latter approach, simply following the evidence where it leads, is what critics of Darwinism and critics of methodological naturalism are attempting.

6. How might you discuss intelligent design with someone who embraces naturalism (materialism)?

Use the key points in the lesson to engage others in conversation about design and naturalism.

7. Which pattern (below) in a complex thing reliably leads us to conclude that it was designed?

Fabrication: A pattern we *impose* on an object or event (it’s *not objectively* independent).

Specification: An *independent* meaningful pattern (Mt. Rushmore matches presidential faces).

Suppose you shoot an arrow thoughtlessly into a wall. Which pattern above is illustrated by painting a target around wherever your arrow hit and saying to a friend: “look at the effect of my archery skill.” Which pattern above would be illustrated if your friend removed your arrow and then shot it into the exact same spot from 50 feet away?

Painting a target around wherever your arrow hit is *fabrication* because you *imposed* this pattern of concentric circles around your arrow’s arbitrary impact point. Such a pattern is *not independent* of the event in question (the arrow’s impact). Legitimate targets, ones that reliably indicate archery skill, are set up before an arrow takes flight and thus are *independent* of the event of arrow shooting. Such would be the case in the scenario in which a friend manages to shoot an arrow into the exact pre-specified point where your arrow had previously landed. This would reliably indicate archery skill, which is a kind of intelligent design.

8. How does this lesson strengthen the argument for the intelligent design of life (and by implication, God’s existence)? Why do you think many people seem determined to explain life’s origin without reference to the kind of intelligent designer whom theists worship, namely a God who interacts in special ways with humans?

This is a summary question that could be answered in many different ways.