

Who Believes What? Clearing up Confusion over Intelligent Design and Young-Earth Creationism

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ABSTRACT

The question of what differentiates young-Earth creationism (YEC) from Intelligent Design (ID) has resulted in inaccurate and confusing terminology, and hinders both understanding and dialogue. Though both YEC and ID groups have drawn distinctions between themselves, previous attempts to classify design-based positions on origins have been unable to adequately resolve their relationships. The Nested Hierarchy of Design, a multiple-character classification system, categorizes teleological positions according to the strength of claims regarding the reality, detectability, source, method, and timing of design, and results in an accurate and robust classification of numerous positions. This method avoids the philosophical and theological pitfalls of previous methods and enables construction of accurate definitions for a suite of teleological positions. The incorporation of the Nested Hierarchy of Design in classroom discussion could 1) better represent the suite of opinions among students, 2) clarify the many teleological positions, and 3) help to reduce tensions between educators, students, and the public.

INTRODUCTION

Reading about creationism can be a daunting task. Often, the descriptions and terminologies of the various teleological (design-based) perspectives on origins have caused confusion in scientific, philosophical, and popular literature. Phrases such as "creationism in disguise", "neo-creationism", and "stealth creationism" are common. Even the term "creationism" seems ambiguous. Most often the confusion surrounds the distinctions between Intelligent Design (ID) and young-Earth creationism (YEC). For example, Forrest and Gross (2003), Pennock (1999, 2001), and Scott (1999, 2004) use the term "Intelligent Design Creationism" in their writings and lectures on the creation/evolution debate.

Rhetorical value aside, such terms cause scientists and educators to assume that ID and YEC proponents (including students) adhere to the same systems of philosophy and theology. In fact, ID and YEC differ significantly. Failing to recognize distinctions between these and other teleological positions can create barriers to constructive discussion, not only in the classroom but also in policy-making public forums (e.g., school board meetings). Clarifying each position's actual stance on issues and their relationships to one another will help guide the dialogue.

SELF PERCEPTIONS

By looking at how ID and YEC view both themselves and each other, one quickly learns that they are not equivalent positions. The Discovery Institute's Center for Science and Culture, the primary research organ of ID, defines ID as "hold[ing] that certain features of the

universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection" (www.discovery.org/csc). Access Research Network defines ID as "the view that nature shows tangible signs of having been designed by a preexisting intelligence" (www.arn.org). Expressly lacking in these definitions are references to religious texts, such as the Bible.

Contrast that with explicit use of the Bible among YECs. Paleontologist and YEC proponent Kurt Wise (2002, p. 281) defines YEC as "maintain[ing] that God created the entire universe during a six-day Creation Week about six thousand years ago." And though not providing an exact age of for Earth, Nelson and Reynolds (1999, p. 42) provide four characteristics of YEC:

- 1) An open philosophy of science (characterized by a lack of *a priori* convictions about what answers are/are not acceptable in science).
- 2) All basic types of organisms were directly created by God during the creation week of Genesis 1-2.
- 3) The curse of Genesis 3:14-19 profoundly affected every aspect of the natural economy.
- 4) The flood of Noah was a historical event, global in extent and effect.

ID proponents are quick to point out their differences with YEC. The Discovery Institute states that ID can be differentiated from YEC in five ways, two of which are of particular importance here:

- 1) ID is based on science, whereas YEC is based on sacred texts.
- 2) The religious implications of ID are unconnected to ID itself.

Leading ID author William Dembski (1999, p. 247) differentiates ID from YEC because "intelligent design nowhere attempts to identify the intelligent cause responsible for the design in nature, nor does it prescribe in advance the sequence of events by which this intelligent cause had to act." Thus the distinctions between ID and YEC drawn by ID proponents center on the non-authority (in science) of sacred texts, and an official agnosticism about the nature and methods employed by the Designer(s).

YEC views towards ID are mixed. Though Henry Morris (1999), coauthor of *The Genesis Flood* and founder of the Institute for Creation Research, has written in sharp opposition to ID, Answers in Genesis, another major YEC organization, has been more open to limited cooperation (Wieland 2002). K. Wise (2002) defines ID as "a theory and movement that seeks to develop a *secular* method of identifying and defending design in the universe" (emphasis added). In each of these cases, the main distinction YEC proponents draw concerns the place they believe Biblical authority ought to have in model construction.

Given the above, it is clear that crossover terminology (i.e. "neo-creationism" and "Intelligent

Composite Continuum/Spectrum Classification

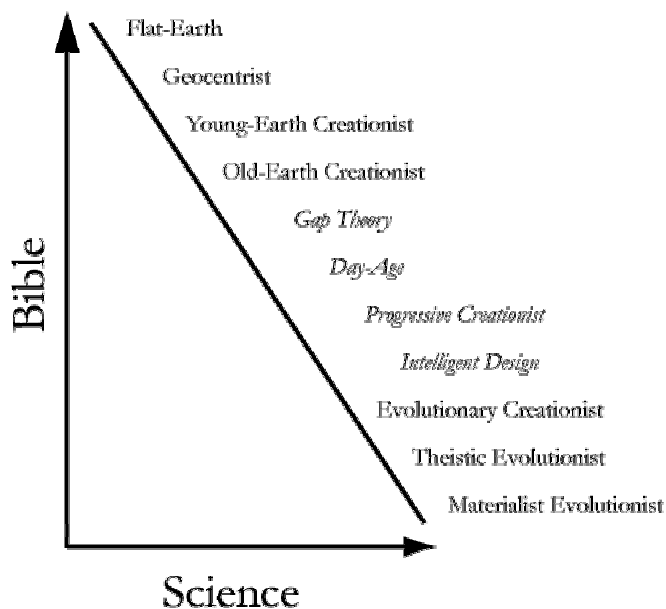


Figure 1. Composite diagram of previous classification methods. Adapted from Scott (1999) and Wise (2001).

Design Creationism") blurs ID and YEC, and their use should be discouraged. But despite the differences, there are still a number of similarities between ID and YEC, so much, in fact, that some YEC proponents have found a home in the ID movement. To understand this, I will introduce a classification scheme that can both accurately define each position and provide a framework to understand the relationship between them. But first it is prudent to look at previous attempts at classification.

PREVIOUS CLASSIFICATION WORK

The most recent attempts to classify the various positions of origins are those of Eugenie Scott (1999) and Donald Wise (2001). Each of these authors attempts to classify origins positions through one or more gradational characters. The "Creation/Evolution Continuum" (Scott 1999; herein Continuum) classifies various origins positions in terms of how "literal" an interpretation of the Bible is taken. All differences between each position are a matter of degree, and the Continuum has "few sharp boundaries". In his belief spectrum (herein Spectrum), D. Wise (2001) combined the "literal" interpretation criterion with how much control God has within the universe. Essentially, the two methods are equivalent, and a composite representation is presented in Figure 1. These classification schemes suffer from three major shortcomings: a strict science/non-science demarcation, the use of ambiguous classification criteria ("literal" interpretation of the Bible), and assumptions of theological uniformity among teleological positions.

Science/Non-science Demarcation - Both Continuum and Spectrum assume that there is a clear method to reliably distinguish science from non-science, a method

of demarcation. However, to justify a science/non-science demarcation, it must be shown that the Bible and science are mutually exclusive. It follows that if the Bible is non-science, then the Bible cannot now, nor ever have, provided any framework for scientific investigation. Neither can it aid in generating any testable hypothesis. If strict demarcation is true, then a scientist cannot use the Bible to gain meaningful insight while in the pursuit of scientific knowledge.

Yet the history of science stands firmly against any such a demarcation. The belief that the Bible provides information on the reproductive nature of plant and animal life lead Carl von Linné to construct the modern discipline of biological systematics (Linné 1766). Paley constructed his views on natural history based on his beliefs about the Bible and the nature of God, and his ideas resulted in an empirical investigation into the natural world that resulted in great scientific advances in biology. He believed, for example, that certain observations in nature, such as the magnificent design of the human eye, pointed directly to the nature, character, and power of God (Paley, 1854).

Conversely, Darwin often utilized a blended Biblical-Neoplatonic view, in which species represented manifestations of "ideal forms" in the mind of God, as a foil in *On the Origin of Species* (see especially his discussions on immutability and biogeography). This Biblical-Neoplatonic view was adopted by many leading scientists of the time, including Agassiz, Cuvier, and Owen (Hull, 1983). Darwin's writings arguing against this concept indicate that he believed such ideas could indeed be empirically evaluated. To assume that there is a strict demarcation between the Bible and science would mean that Linne and Paley were not scientists (along with a host of others), and that many of Darwin's arguments in *Origin* do not count as scientific discourse. This criterion is therefore ineffective.

"Literal" Interpretation of the Bible - A second problem for the Continuum/Spectrum is this: what does it mean to take the Bible "literally" as opposed to "nonliterally"? Here again we face a demarcation, this time theological. From the standpoint of the Continuum, if one takes the Bible entirely "literally", then one would be a Flat Earther (the Spectrum ends at YEC). Scott (1999) claims, "[t]he strictest creationists are Flat Earthers". Granted, a Flat-Earther, should you happen to find one, would likely say that he/she takes the Bible "literally"; indeed they might claim to take the Bible more literally than any other position represented on the Continuum. But how is "literal" judged, and does Flat Earth actually represent the most "literal" position on the Continuum?

What begins as a straightforward question quickly turns into a rather bizarre dilemma. According to the Continuum/Spectrum, YEC and OEC take the Bible less "literally" than does Flat Earth. But YEC and OEC might jointly claim that a Flat Earth interpretation is actually taking the Bible nonliterally. How? One charge might be that the Flat Earth interpretation ignores grammatical and linguistic devices employed by the original writer of scripture, devices designed to imply nonliteral prose. If a particular passage cited as support for a Flat Earth has a poetic literary structure, then perhaps a "nonliteral" interpretation is actually "literal" with respect to the author's intent.

The book of Revelation provides an example. John, in Revelation 7:1 (NASB) writes in part, "After this I saw four angels standing at the four corners of the earth..."

The Flat Earth perspective may consider this passage to argue strongly for its case. But Revelation is written in a peculiar literary style called apocalypse, known for its highly stylized and symbolic language. Indeed, John states elsewhere (Rev. 1:10; 4:1,2) that what he is relating to his readers came from a vision, so we might expect that the language used to describe scenes and events will be symbolic or non-literal. Saying that John actually meant that he saw a flat earth when writing "four corners" would be like assuming that all meteorologists are geocentrists because they tell us when the sun will "rise" and "set".

Any true "literal" understanding of this passage incorporates style, intention, and historical context, not just what modern readers see in English, devoid of literary context. Since Flat Earth fails to do so, the position must be moved down the Continuum/Spectrum, past YEC and OEC, and fall in next to other groups with less "literal" Bible interpretation (itself likewise debatable). In doing so, the most unreasonable of positions finds a home right next to evolutionary creationist and theistic evolutionist, who are supposed to be more reasonable than YEC. Because debates over the proper interpretation of scriptural passages (including creation passages in Genesis) are widespread within Christianity, any classification based upon "literal" versus "nonliteral" Biblical interpretation is going to be quite problematic.

Assumptions of Theological Unity - Third, the Continuum/Spectrum fails to accurately classify teleological groups because it assumes theological unity among all positions. This problem is expressed in two ways. First, the Continuum/Spectrum categorizes ID as being a form of Old-Earth Creationism (OEC), located between Progressive Creationism and Evolutionary Creationists. But the diversity of Christian positions among ID proponents undercuts this argument. For example, two prominent ID proponents, Paul Nelson and Michael Behe, are not OECs; they are YEC and theistic evolutionist, respectively. As it stands, such diversity among Christian beliefs within the ID movement itself disqualifies ID as just a subcategory of OEC.

Second, and more importantly, the Continuum/Spectrum considers all positions not labeled Materialist Evolutionist to be derived from a Christian belief system, and that the Designer is invariably the Christian God. While it is true that the vast majority of creationists and ID proponents are Christians, some are not. Some creationists (YEC and other types) are Jewish or Muslim. ID itself includes non-Christian adherents such as David Berlinski (Jewish) and Michael Denton (Neoplatonist; see Denton, 1998 and Denton et al., 2002).

To cloud matters further, the Raelian movement (2002) has officially endorsed ID as an alternative to evolution. This group, which is certainly not Judeo-Christian, identifies the Designer as super-intelligent alien scientists (the "Elohim") who manufactured life on Earth. Directed panspermia, which claims that life was seeded on this planet by an alien race, could likewise be viewed as an ID-type position. Since each of these decidedly non-theistic positions can claim a form of ID, the Continuum/Spectrum fails to distinguish ID from Christian theism.

The Nested Hierarchy of Design

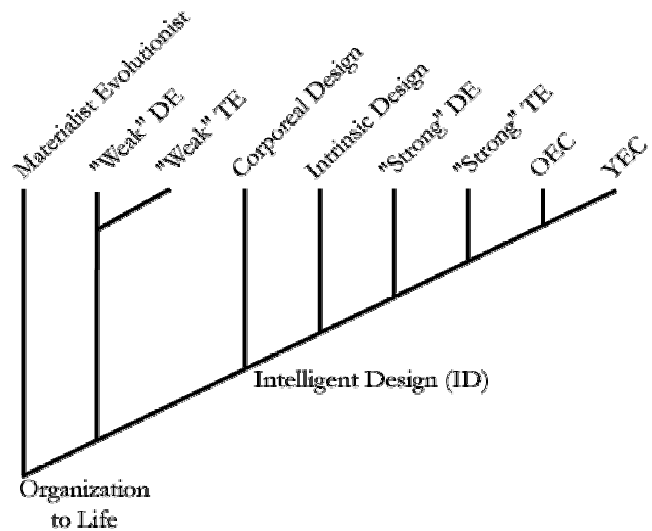


Figure 2. Graphical representation of the relationships among teleological positions. Formal definitions provided in text. DE = Deistic Evolution, TE = Theistic Evolution, OEC = Old-Earth Creation, YEC = Young-Earth Creation

THE NESTED HIERARCHY OF DESIGN

The philosophical and theological problems encountered by the Continuum/Spectrum can be avoided. A classification system that defines positions based on their responses to various design claims, yet avoids demarcation arguments and naïve theological assumptions yields positive results. The Nested Hierarchy of Design (Figure 2) is such a system. It is constructed similarly to cladograms in biology and paleontology, and the various characters used in this system can be numerically coded.

The Nested Hierarchy of Design is meant to classify teleological positions based on the relative strength of design claims. It is not intended to distinguish which of the positions classified can be referred to as "scientific" positions; hence it avoids the pitfalls of demarcation. Through the Nested Hierarchy of Design, we can recognize the variety of theological positions represented among teleological positions. In fact, theological claims are included to better resolve the relationship among the teleological positions classified here.

To classify the various teleological positions, the characters are defined as follows:

- Teleos (A)**-Real design does not (0) or does (1) exist in the abiotic and/or biotic realm;
- Detectable (B)**-Design is not empirically detectable (0), or it is (1);
- Agency**-The nature of the designing agent is:
 - (C) Corporeal, having a physical body, (0) or noncorporeal (1);
 - (D) Intrinsic to/united with the universe (0) or transcendent to it (1);

Position	A	B	C	D	E	F	G
Materialist Evolutionist	0	0	X	X	X	0	0
"Weak" Deistic Evolution	1	0	1	1	0	0	0
"Weak" Theistic Evolution	1	0	1	1	1	0	0
Corporeal Design	1	1	0	X	X	0/1	0
Intrinsic Design	1	1	1	0	X	0	0
"Strong" Deistic Evolution	1	1	1	1	0	0	0
"Strong" Theistic Evolution	1	1	1	1	1	0	0
Old-Earth Creation	1	1	1	1	1	1	0
Young-Earth Creation	1	1	1	1	1	1	1

Table 1. Character matrix for teleological positions. Characters (A-G) described in text. An 'X' indicates that the position takes no stance on the character.

(E) Deistic, being responsible for the initial formation of the universe only (0) or Theistic, which includes both initial formation and subsequent interaction with the universe (1);

Biological Continuity (F)- ancestry among organisms is continuous (0) or discontinuous (1);

Age (G)-The age of Earth is 4.5 billion years (0) or approximately 6,000 (1).

Table 1 is a character matrix of eight teleological positions, with Materialist Evolutionist as an outgroup (again, like a cladistic analysis). Two notes need to be made. First, there are two forms each of deistic and theistic evolutionist, "weak" and "strong". These adjectives are related only to the relative strength of design claims (below); they are *not* theological judgments. Second, ID is not included among the teleological positions. Its particular position is discussed below.

FORMAL DEFINITIONS

We can now provide formal definitions for all of the teleological positions surveyed based upon the characters coded in Table 1. The following definitions are proposed:

Materialist Evolutionist-a non-teleological position that affirms that only apparent, not real design, exists in the abiotic and biotic realms. Causes for the creation and subsequent development of these realms are attributed only to natural processes.

"Weak" Deistic Evolution-a teleological position that affirms recognition, but not empirical detectability of real design in the abiotic realm by a transcendent, Deistic Being who has causally acted only during its initial formation. Natural processes are the only factors that have brought about and shaped biological complexity during the past 4.5 billion years.

"Weak" Theistic Evolution-a teleological position that affirms the recognition, but not empirical detectability of real design in the abiotic and biotic realms by a transcendent, Theistic Being who has causally acted both during and after its initial formation, having designed biological complexity via universal common ancestry during the past 4.5 billion years.

Corporeal Design-a teleological position that affirms recognition and detectability of real design in the biotic

realm by a being(s) with physical bodies, having designed biological complexity at some point during the past 4.5 billion years, with or without using universal common ancestry (e.g., panspermia and Raelianism, respectively).

Intrinsic Design-a teleological position that affirms recognition and detectability of real design in the abiotic and/or biotic realm by a Being who is wedded to/one with the universe, and who has causally acted since its initial formation, having designed biological complexity via universal common ancestry during the past 4.5 billion years.

"Strong" Deistic Evolution-a teleological position that affirms recognition and detectability of real design in the abiotic realm by a transcendent, Deistic Being who has causally acted only during its initial formation. Natural processes are the only factors that have brought about and shaped biological complexity during the past 4.5 billion years.

"Strong" Theistic Evolution-a teleological position that affirms recognition and detectability of real design in the abiotic and biotic realms by a transcendent, Theistic Being who has causally acted both during and after its initial formation, having designed biological complexity via universal common ancestry during the past 4.5 billion years.

Old-Earth Creationism-a teleological position that affirms recognition and detectability of real design in the abiotic and biotic realms by a transcendent, Theistic Being who has causally acted both during and after its initial formation, having designed discontinuous biological complexity during the past 4.5 billion years.

Young-Earth Creationism-a teleological position that affirms recognition and detectability of real design in the abiotic and biotic realms by a transcendent, Theistic Being who has causally acted both during and after its initial formation, having designed discontinuous biological complexity approximately 6,000 years ago.

As mentioned above, ID is not included among the teleological positions in Table 1 or Figure 2. Its definition is given here, followed by a rationale for its location on the Nested Hierarchy of Design

Intelligent Design-a teleological position that affirms recognition and empirical detectability of real design in the abiotic and/or biotic realms.

Though ID is defined like the above teleological positions, it is more accurately described as a point of agreement *among* positions, each of which is more fully developed than is ID. For example, ID cannot resolve the issues of biological ancestry or the age of Earth, because in-group members disagree about them. Since the claim that design is real and can be detected by science is made all groups from "Corporeal Design" to YEC, ID takes its place as a node on the Nested Hierarchy of Design, and defines a teleological "clade".

Reflecting back on the difficulties and misconceptions encountered in distinguishing ID and YEC, the definitions provided here elucidate their relationship. Without a doubt, there are commonalities between the two groups. Each affirms that design is real and that empirical detection of that design is possible. However, because YEC incorporates additional philosophical and theological claims that go beyond ID's minimal claims, the two are obviously not identical, or even strictly comparable.

CLASSROOM IMPLEMENTATION

The Nested Hierarchy of Design may be implemented as a 5-10 minute module during an introductory unit on evolution, geologic time, or astronomy, to present the scope of ideas that may be represented by students in the classroom. Students can both gain an appreciation for the variety of opinions on creation and evolution, and more clearly identify for themselves their own opinions and see how they relate to those of others. Not only will students see how different groups treat different sources of information as evidence, using the Nested Hierarchy of Design clarifies the approach to science used by the educator within the classroom.

Another teaching benefit is that students will be introduced to the concept of nested hierarchies. Since the methodology used to generate the Nested Hierarchy is identical to cladistics, the unit can form a bridge to lectures in how paleontologists and biologists classify organisms.

Because of the diversity of characters used to generate the Nested Hierarchy, both educators and students can see that the issues are not strictly divisible into familiar but inaccurate Bible-vs.-science categories. This can reduce the feelings of attack that some students (particularly highly religious students) often experience during classroom presentations of evolution. Additionally, the Nested Hierarchy of Design allows educators to better recognize and respond to the specific types of questions and concerns their students pose that challenge evolution. For example, if a student comes to an educator's office with questions about cosmological anthropic principles the educator should not immediately assume that the student disputes common ancestry among humans and apes. The incorporation of the Nested Hierarchy of Design, as opposed to other classification methods, will not only better represent the suite of opinions among students, but will help to clarify issues and reduce the likelihood of tension between educators, students, and the public.

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