

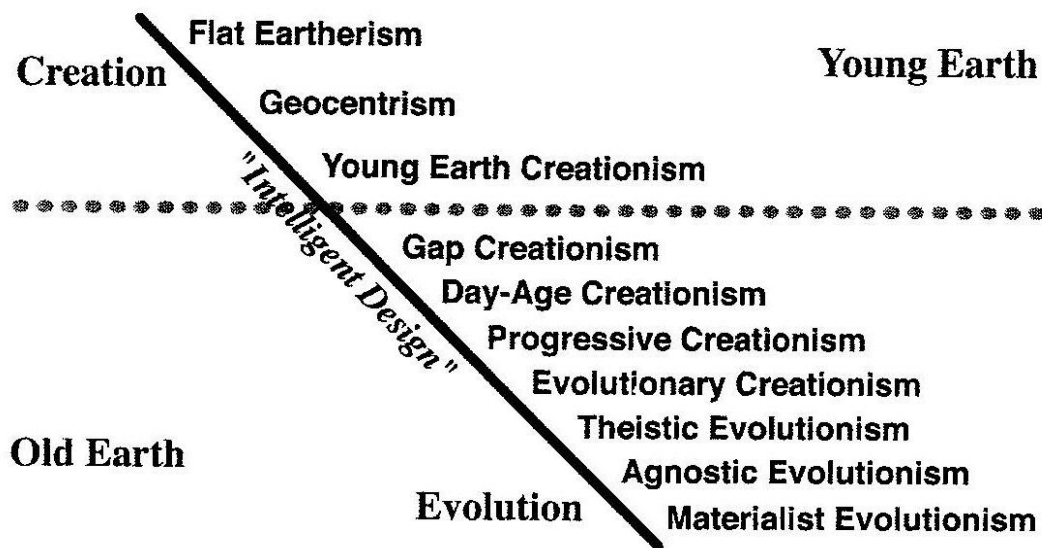
Critical Reasoning WS 8-1 Tuesday, May 17, 2011

- I. (Individually) follow the powerpoint review/mini-lecture about the answers for today's assignment.
Put a check ✓ against largely correct answers, an X against largely wrong answers and a question mark ? if you aren't sure

II

- A. **Brief Plenary Discussion** of Figure 3.1 cited in Eugenie Scott's *Evolution vs. Creationism: An Introduction*

Figure 3.1
The Creation/Evolution Continuum. Courtesy of Alan Gishlick



Flat Eartherism, as the name suggests, see as many as 76 scriptural references, indicating that the earth is flatish (not roughly spherical).

Geocentrism reject virtually all modern physics and astronomy (like the flat earthers) on scriptural grounds

Young Earth Creationism accept heliocentrism, but rejects much of modern physics, astronomy, chemistry and geology concerning the age of the earth (on scriptural grounds put it between about 4000 and 6000 years old

Old Earth Creationism accepts that the Earth is ancient. It comes in several varieties

- (1) Gap Creationism—gap between verses 1 and 2 of Genesis 1.
- (2) Day Age Creation —“days of the Bible are not 24 hour days, but long periods of time
- (3) Progressive Creationism—God created simple organisms, then later created others, thereby creating the “fossil record”.
- (4) Evolutionary Creationism—similar to Theistic evolutionism, but with a more active role allocated to God

The remainder of items on the continuum (Intelligent Design creationism, Theistic Evolutionism, Agnostic Evolutionism and Materialistic Evolutionism) are described in the text on the last two pages of this workshop.

B. Individually, read the description of these views.

C. In small group: Discuss. Which position (if any) most represents your current view?

III. Argument from Design (The teleological argument)

A (In small Group) Discuss and if possible reconstruct William Paley's "argument from design" as presented in the reading for today (section IV). Write it out in the space at the bottom of this sheet What, if anything is wrong with it? Is it sound? Does it have other failings, or strengths

B. Plenary Discussion of argument form design.

IV "Seminar" on Readings

A.(In small Group) Characterize the central features of Intelligent Design as presented in the readings, especially the "Discovery Institute materials" and the passages from Behe and Dembski

B.Seminar Discussion: of the strengths and weakness of the positions (Pro and Con Intelligent Design) contained in the readings. Is (or could be) Intelligent Design and empirical (scientific Theory).



Critical Reasoning Assignment for Friday May 20, Read C&P Ch 9 260 to end on arguments from analogy and convergent arguments, as well as all of Ch 11 on "Putting it all together: Six Steps to Understanding and Evaluation Arguments"



Critical Exchange Assignment: Submit a brief progress report indicating any change or refinement in topic or group membership as well *as a statement of the conclusion that will be affirmed or denied by the two teams.*

Description of some items on the “right hand” end of Alan Gishlick’s Creation/Evolution continuum as presented in Eugenie Scott’s Evolution vs. Creationism. The items on the left end are described more fully in an expanded version of this handout available through the “materials” button on our web site.

Intelligent Design Creationism

Intelligent Design Creationism (IDC) is the newest form of creationism, and yet it resembles a much earlier idea. In some ways, IDC is a descendant of William Paley’s Argument from Design (Paley 1803), which argued that God’s existence could be proved by examining His works. Paley used a metaphor: if one found a watch, it was obvious that such a complex object could not have come together by chance; the existence of a watch implied a watchmaker who had designed the watch with a purpose in mind. By analogy, the finding of order, purpose, and design in the world was proof of an omniscient designer.

The vertebrate eye was Paley’s classic example of design in nature, well known to educated people of the nineteenth century. Because of its familiarity, Darwin deliberately used the vertebrate eye in *On the Origin of Species* to demonstrate how complexity and intricate design *could* come about through natural selection and did not require divine intervention.

To suppose that the eye, with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I freely confess, absurd in the highest possible degree. Yet reason tells me, that if numerous gradations from a perfect and complex eye to one very imperfect and simple, each grade being useful to its possessor, can be shown to exist; if further, the eye does vary ever so slightly, and the variations be inherited, which is certainly the case; and if any variation or modification in the organ be ever useful to an animal under changing conditions of life, then the difficulty of believing that a perfect and complex eye could be formed by natural selection, though insuperable by our imagination, can hardly be considered real. (Darwin 1966: 186)

Structures and organs that accomplish a purpose for the organism—allow capture of prey, escape from predators, or attracting a mate—could be designed directly by an omniscient designer, or they could be “designed” by a natural process that produced the same effect. As will be discussed in more detail elsewhere in this book, Darwin’s argument that a natural process such as natural selection could explain apparent design was theologically offensive to those who believed that God created *directly*.

In IDC one is less likely to find references to the vertebrate eye and more likely to find molecular phenomena such as DNA structure or cellular mechanisms held up as too complex to have evolved “by chance.” The IDC high school biology supplemental textbook, *Of Pandas and People* (Davis and Kenyon 1993), weaves allusions

to information theory into an exposition of the “linguistics” of the DNA code in an attempt to prove that DNA is too complex to explain using natural causes.

In the PC tradition, IDC proponents accept natural selection but deny that mutation and natural selection are adequate to explain the evolution of one kind to another, such as chordates from echinoderms or humans from apes. The emergence of major anatomical body types and the origin of life, to choose just two examples popular among IDCs, supposedly are phenomena “too complex” to be explained naturally; thus IDC demands a role be left for the intelligent designer—God. IDC will be discussed in more detail in chapter 7.

Theistic Evolutionism

Theistic Evolution (TE) is a theological view in which God creates through the laws of nature. TEs accept all the results of modern science, in anthropology and biology as well as astronomy, physics, and geology. In particular, it is acceptable to TEs that one species can give rise to another; they accept descent with modification. TEs vary in whether and how much God is allowed to intervene—some believe God created the laws of nature and is allowing events to occur with no further intervention. Other TEs see God as intervening at critical intervals during the history of life (especially in the origin of humans). In a recent book, an entire continuum of Theistic Evolutionists is presented; clearly, there is much variation (Hewlett and Peters 2003). In one form or another, TE is the view of creation taught at the majority of mainline Protestant seminaries, and it is the position of the Catholic Church. In 1996, Pope John Paul II reiterated the Catholic version of the TE position, in which God created, evolution happened, humans may indeed be descended from more primitive forms, but the Hand of God was required for the production of the human soul (John Paul II 1996).

In Figure 3.1, TE is followed by two nontheistic views, Agnostic Evolutionism (AE) and Materialist Evolutionism (ME).

Agnostic Evolutionism

Although poll data indicate that most Americans have a belief in God or some higher power, a minority do not (Kosmin et al. 2002). Just as there are variations in worldview among believers, so also are there differences among those who do not believe in God. The term “agnostic” was coined by “Darwin’s Bulldog,” the nineteenth-century scientist Thomas Henry Huxley, to refer to someone who suspended judgment about the existence of God. Huxley felt that in this world, it is impossible to know or even grasp ultimate reality; therefore neither belief in nor rejection of the existence of God is warranted. To Huxley, the thoughtful person should suspend judgment. Huxley was a strong supporter of science and believed that knowledge and beliefs should be based upon empirical knowledge—and that supernaturalism would eventually be supplanted by science. But he felt it was more honest not to categorically reject an ultimate force or power beyond the material world (Huxley [2002] 1884).

I have no doubt that scientific criticism will prove destructive to the forms of supernaturalism which enter into the constitution of existing religions. On trial of any so-called miracle the verdict of science is "Not proven." But true Agnosticism will not forget that existence, motion, and law-abiding operation in nature are more stupendous miracles than any recounted by the mythologies, and that there may be things, not only in the heavens and earth, but beyond the intelligible universe, which "are not dreamt of in our philosophy." The theological "gnosis" would have us believe that the world is a conjuror's house; the anti-theological "gnosis" talks as if it were a "dirt-pie" made by the two blind children, Law and Force. Agnosticism simply says that we know nothing of what may be beyond phenomena.

Agnostics believe that in this life, it is impossible truly to know whether there is a God, and although they believe that it is not probable that God exists, they tend not to be dogmatic about this conclusion. AEs accept the scientific evidence that evolution occurred, but they do not consider important the question of whether God is or was or will be involved. They differ from the next position on the continuum by not categorically ruling out the involvement of God, although like Materialist Evolutionists, they are nonbelievers.

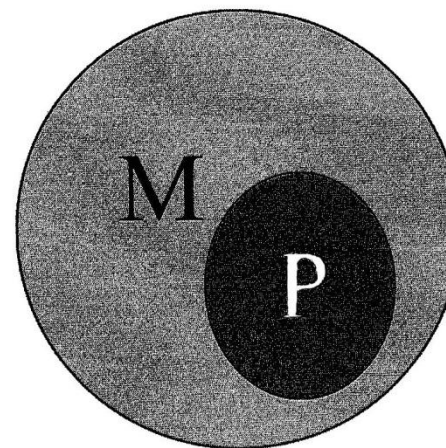
Materialist Evolutionism

We should distinguish between two uses of the term "materialism" (or "naturalism"). As we discussed earlier, modern science operates under a rule of *methodological naturalism* that limits it to attempting to explain natural phenomena using natural causes. Materialist Evolutionists (ME) go beyond the methodological naturalism of science to propose not only that natural causes are sufficient to explain natural phenomena, but also that the supernatural does not exist. This is a form of *philosophical naturalism*. To a philosophical naturalist, there is no God. The philosophy of humanism is a materialistic philosophy, as is atheism. As discussed earlier in this chapter, philosophical naturalism is distinct from the practical rules of how to do science.

This is an important distinction to the subject of this book because some anti-evolutionists criticize evolution and science in general for being not only methodologically naturalistic but also philosophically naturalistic. This is a logical error, as can be seen in Figure 3.3. It is very likely the case that all philosophical naturalists are simultaneously methodological naturalists (all Ps are Ms). It does not follow that all methodological naturalists are philosophical naturalists (not all Ms are Ps). It *might* be the case—if both circles were the same size and right on top of one another—but this would have to be determined empirically, not logically. In fact, such a claim is empirically falsified, for there are many scientists who accept methodological naturalism in their work, but who are theists and therefore not philosophical naturalists. Gregor Mendel—the monk whose research became the foundation of genetics—is a classic case of a scientist who was a methodological naturalist but not a philosophical one, and there are many scientists today who, like him, are methodological but not philosophical naturalists.

As mentioned, there are varieties of belief within the various positions on the continuum, and this is true for materialists as well. For example, although materialists

Figure 3.3
The Relationship Between Methodological
and Philosophical Naturalism



All philosophical naturalists are methodological naturalists, but it is not accurate to say that all methodological naturalists are philosophical naturalists. One can thus be a scientist practicing methodological naturalism but still be a theist.

share a high opinion of science and accept evolution, they do not all share the same attitudes toward religion. *Agnostic* materialists don't consider that the question of whether God created can be answered. *Humanists* believe that "Humanism is a progressive lifstance that, without supernaturalism, affirms our ability and responsibility to lead meaningful, ethical lives capable of adding to the greater good of humanity" (American Humanist Association 2002). The two major humanist organizations are the American Humanist Association, at the time of this writing consisting of approximately 5,000 members, and the Council for Secular Humanism, with approximately 4,000 members.

The third major group within materialists, *atheists*, reject the existence of God but tend to be more actively antireligious than the other two. There are about 2,200 members of the best-known atheist group, the American Atheists. Clearly, any single theist organization has far more members than all the materialist organizations combined. If nonbelievers are between 10 percent and 14 percent of the population, as suggested by some polls, the vast majority of them do not join groups of like-minded individuals.

This presentation of Christian and materialist views regarding creation and evolution is simplified—just as was the earlier presentation of the nature of science in chapter 1 and the presentation of the science of evolution in chapter 2. It is possible

to go into far more detail on any of these beliefs, but a shorthand version will have to suffice to introduce the topic.