Disclosure

of things evolutionists don't want you to know

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What is Science?

One has to change the definition of "science" to make the theory of evolution scientific.

Jay brought to our attention an October, 2015, blog posting on the *Discover* magazine website titled, "The Scientific Method Is a Myth." [1] It was actually an advance excerpt from the book, Newton's Apple and Other Myths About Science, edited by Ronald L. Numbers and Kostas Kampourakis. [2] It was clearly a planted blog designed to hype the book just before it came out. We have no problem with that.

What we do have a problem with is the attempt to hijack the definition of science to give the credibility of science to philosophical (or political) opinions, as if those ideas are unquestionably true. The blog post in question tries to prove that science no longer requires scientific investigation using the scientific method. If it is an opinion held by a consensus of scientists, that opinion is defined to be true. This blog post proves our claim that some people really are trying to change the definition of science to "anything someone in a white coat believes." Our claim is not a foolish straw man. There are people in general (and evolutionists in particular) who really do want to change the definition of science to make their opinions "scientific" and therefore unquestionably true.

Let's begin by looking at Webster's definitions of "science" and "the scientific method."

Webster's Definitions

Simple Definition of science

: knowledge about or study of the natural world based on facts learned through experiments and observation

: a particular area of scientific study (such as biology, physics, or chemistry) : a particular branch of science

: a subject that is formally studied in a college, university, etc.

Full Definition of science

***1*:** the state of knowing : knowledge as distinguished from ignorance or misunderstanding

2a **:** a department of systematized knowledge as an object of study <*the science of theology*>

b **:** something (as a sport or technique) that may be studied or learned like systematized knowledge <*have it down to a science*>

3a **:** knowledge or a system of knowledge covering general truths or the operation of general laws especially as obtained and tested through scientific method

b **:** such knowledge or such a system of knowledge concerned with the physical world and its phenomena **:** natural science

4 **:** a system or method reconciling practical ends with scientific laws <*cooking is both a science and an art*>

5 *capitalized* **:** christian science [3]

Definition of scientific method

: principles and procedures for the systematic pursuit of knowledge involving the

[1] http://blogs.discovermagazine.com/crux/2015/10/28/scientific-method-myth/#.V6IPyvkrKM9

[2] https://www.amazon.com/Newtons-Apple-Other-Myths-Science/dp/0674967984/ref=sr_1_1?s=books&ie=UTF8&qid=1470238851&sr=1-1&keywords=Newton%E2%80%99s+Apple+and+Other+Myths+About+Science

[3] http://www.merriam-webster.com/dictionary/science

> recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of hypotheses [4]

Notably absent from Webster's definition is any notion of consensus, or an appeal to the edict of a recognized authority. The recurring theme in the various definitions is the notion of a system for determining truth. That system depends upon experimentation and observation, not speculation about how something could have happened, or might happen in the future.

The Scientific Method Myth

So, with that background, let's examine the excerpt from Newton's Apple and Other Myths About Science that claims the scientific method is a myth.

As always, we urge you to use the link in the footnote to read what the evolutionist actually said in his blog on the *Discover* website. Unfortunately, the blog is hard to understand. Perhaps that was intentional.

The blog begins with a rhetorical dirty trick designed to confuse the reader and make it appear that nobody really knows what the scientific method is.

> But to squeeze a diverse set of practices that span cultural anthropology, paleobotany, and theoretical physics into a handful of steps is an inevitable distortion and, to be blunt, displays a serious poverty of imagination. … Even simplistic versions vary from three steps to eleven. Some start with hypothesis, others with observation. Some include imagination. Others confine themselves to facts. … Scientific method is a keyword (or phrase) that has helped generations of people make sense of what science was, even if there was no clear agreement about its precise meaning—*especially* if there was no clear agreement about its precise meaning. … A word with too exact a definition is brittle; its use will be limited to specific circumstances. A word too loosely defined will create confusion and appear to say nothing. A word balanced just so between precision and vagueness can change the world. [5]

It is true that definitions vary slightly; but they all begin with a hypothesis (which may have been inspired by an observation or insightful thought) which is tested by a repeatable experiment which confirms or denies the hypothesis. If the original hypothesis is false, it may lead to a revised hypothesis, and the cycle starts all over again. The only difference in the various definitions is how detailed the description of the process is. Some definitions break general steps into several more specific steps.

The blog post attempts to discredit the scientific method by nit-picking the small differences in the various definitions. The argument about the exact definition of the scientific method is simply a distraction designed to obscure the point that the scientific method is a systematic method of determining the truth using carefully designed experiments. Attacking the definition is just a dirty debating trick.

Building on the false foundation that the definition of the scientific method is ambiguous and flawed, they claim anything can be "science."

> And yet the wide variation in possible meanings has made the scientific method a valuable rhetorical resource. Methodological pictures painted by practicing scientists have often been tailored to support their own position and undercut that of their adversaries, even if inconsistency results. … More or less coincidentally, its invocation assuaged any doubts that real science was present. [6]

Then they attempt to discredit the scientific method by associating it with pseudoscience.

> Given all that, it's even more remarkable that "scientific method" was rarely used before the mid-nineteenth century among English speakers, and only grew to widespread public prominence from the late nineteenth to the early twentieth centuries, peaking somewhere between the 1920s and 1940s. In short, the scientific method is a relatively recent invention.
>
> But it was not alone. Such now-familiar pieces of rhetoric as "science and religion," "scientist," and "pseudoscience" grew in prominence over the same period of time. In that sense, "scientific method" was part of what we might call a rhetorical package, a collection of important keywords that helped to make science comprehensible, to clarify its differences with other realms of thought, and to distinguish its devotees from other people. All of this paralleled a shift in popular notions of science from general systematized knowledge during the early 1800s to a special and unique sort of information by the early 1900s. … During the late 1800s, the majority of public boundary-work around science was related to

[4] http://www.merriam-webster.com/dictionary/scientific%20method

[5] http://blogs.discovermagazine.com/crux/2015/10/28/scientific-method-myth/#.V6IPyvkrKM9

[6] *ibid.*

> the raging debate over biological evolution and the emerging fault line between science and religion. Given that, we might expect the scientific method to have been a prominent weapon for the advocates of evolutionary ideas, such as John Tyndall (1820–1893) or Thomas Henry Huxley (1825–1895). But that wasn't the case. The notion of a uniquely scientific methodology was still too new and lacked the rhetorical flexibility that made it useful. Instead, the loudest invocations of the scientific method were by those who hoped to *limit* the reach of science. [7]

There is some truth in this—but it is twisted. Let's untwist it.

Yes, it is true that science really took off in the late 19th century, with popular scientific enthusiasm dominating the culture in the 20th century. The 1962 Seattle World's Fair was devoted to Century 21, and all the wonderful things science would do for us in the future. We were shooting for the moon back then, and even got there in 1969. The scientific method was used to make great advances in communication technology, from the telephone to radio to television to computers. Transportation technology went from Kitty Hawk to Cape Canaveral.

But, at the same time, the theory of evolution was proposed as an atheistic alternative to creation. It was supposed to be scientific—but it was just a theory that could not be verified by the scientific method, which is why it wasn't "a prominent weapon for the advocates of evolutionary ideas." People (like me) who point out the fact that the theory of evolution is merely speculation, not scientific truth, aren't trying to *limit* science. We are trying to *defend* science.

The last sentence of the blog is,

> If we return to a simplistic view, one in which the scientific method really is a recipe for producing scientific knowledge, we lose sight of a huge swath of history and the development of a pivotal touchstone on cultural maps. We deprive ourselves of a richer perspective in favor of one both narrow and contrary to the way things actually are. [8]

This is an attempt to denigrate the scientific method as a "simplistic view" that isn't able to show us the way things actually are. That, presumably, is the reason the scientific method must be abandoned. The real reason is that the scientific method can't be used to prove evolution, because science is against evolution.

[7] *ibid.*
[8] *ibid.*

Email

Arbitrary Classification

Is taxonomy arbitrary or not?

We received this very long email from a professor at a major university in Mexico. He gave his full name and affiliation in his email, but we changed his name to "Pedro" to protect his identity. We aren't trying to embarrass him or attack him personally—we are discussing the ideas he clearly presents.

Primarily, we want to address his claim that taxonomy (that is, the biological classification system) is not arbitrary. Here's what he wrote.

> Dear Mr. Jones,
> I hope you are having a great day. I'm Pedro, teacher of Systematics at the science school of Mexico's best university. It is by this means that I would like to start a friendly discussion regarding the opinions expressed in the science against evolution website. I hope we both get enriched by this discussion. I would like to start this exchange of ideas with counter-arguments against the arguments presented in the "Dinosaur Delusions" article. [9]
> -First, there are some comments on classification saying it is arbitrary. I think you are lacking some historical context and showing ignorance with respect to the current ways of classifying life. At the time of Bakker's publications the prevailing school of systematics was the Darwinian "evolutionary systematics". Nowadays cladistics is regarded as superior to evolutionary systematics. The latter one indeed arbitrarily divided groups of animals based on their adaptations. Cladistics avoid this limitation by providing a repeatable and unbiased way of classifying organisms: a group needs to include an ancestor and all of its descendants (this is called a monophyletic group). Therefore, it would be arbitrary to exclude a certain group of descendants from that group. That's why birds are dinosaurs. All dinosaurs (e.g. Triceratops and Tyrannosaurus) share a common ancestor, and so the group Dinosauria needs to include all descendants of that ancestor, one of which is birds. Also, please remember that not all dinosaurs are birds, but all birds are dinosaurs (it's not that hard to picture: not all Americans are Ohians, but all Ohians are American). The same applies to the clade Reptilia. Since dinosaurs are descendants of the most recent common ancestor of all reptiles, they are reptiles. Therefore,

[9] *Disclosure*, August 2014, "Dinosaur Delusions", http://www.scienceagainstevolution.info/v18i11f.htm

all dinosaurs are reptiles but not all reptiles are dinosaurs, and, since birds are dinosaurs, all birds are reptiles but not all reptiles are birds. Note that groups are not formed based in similarity, but in relatedness. If my dad was blue-eyed and I was brown-eyed we would still be family.

-The issue of "cold" or "warm-blooded" dinosaurs is not a matter of opinion. Evidence now suggests non-avian dinosaurs had a unique metabolism (similar to what you guys jokingly state as "tepid-blooded"). As you pointed out, there was evidence suggesting they were cold blooded and evidence suggesting they were warm blooded, but those two pieces of evidence are not contradictory when you consider them to have a unique metabolism, an idea supported by several lines of evidence.

-Sometimes there are evolutionary patterns, sometimes there aren't. Evolution is an [*sic*] stochastic phenomenon (as computer scientist I think you know what that is). Evolution is dynamic and it's [*sic*] mode and tempo is [*sic*] dependent on several factors. If there is not a trend towards miniaturization in Theropoda it doesn't mean that a particular population of theropods couldn't undergo miniaturization, even if other populations didn't.

-All science evolves. We now know Newtonian mechanics are not followed in too big and too small scales. As our capacity to gather more and more reliable evidence improves (mainly thanks to technology) some theories need to be re-thinked. Newtonian mechanics are still valid, as is evolutionary theory, but both theories have become more refined and have now more intellectual branchings. There is not a single line of evidence denying evolution, we just now know it is more complex than expected. In fact, the changing nature of theories is their strength compared to religion, which is dogmatic and tyrannical. Theories change as more evidence is gathered, regardless of whether we like it or not, while religion generally doesn't change and if it does it's according to the interests of a few and not because of evidence.

-Finally, Ryan's crazy theories can in fact be proven wrong, contrary to his statements. We know convergence exists because rigorous methods of reconstructing life trees support its existence. Trees and evolutionary hypotheses are not built arbitrarily, but are built based on rigorous mathematical and statistical methods that take several lines of evidence into account. The recognition of homology and convergence is based on these rigorous methods.

I hope this is the beginning of a friendly and enriching exchange of ideas on several topics.

Best,

Pedro

What is "Arbitrary"?

Some people are unclear on the concept of "arbitrary". So, let's start with the definition of arbitrary, and then explore the concept. According to Merriam-Webster,

Full Definition of arbitrary

1 : depending on individual discretion (as of a judge) and not fixed by law <*the manner of punishment is arbitrary*>

2a : not restrained or limited in the exercise of power : ruling by absolute authority <*an arbitrary government*>

2b : marked by or resulting from the unrestrained and often tyrannical exercise of power <*protection from arbitrary arrest and detention*>

3a : based on or determined by individual preference or convenience rather than by necessity or the intrinsic nature of something <*an arbitrary standard*> <*take any arbitrary positive number*> <*arbitrary division of historical studies into watertight compartments — A. J. Toynbee*>

3b : existing or coming about seemingly at random or by chance or as a capricious and unreasonable act of will <*when a task is not seen in a meaningful context it is experienced as being arbitrary — Nehemiah Jordan*> [10]

To some people, "arbitrary" is a pejorative word, primarily because of the tyrannical aspects of definition 2b. We imagine Dr. Sigmund Freud explaining it this way: "When you were a child your father refused to let you do something you wanted to do. When you asked why you could not do it, his response was simply that he said so. Your repressed resentment of your father makes you hate any arbitrary decision." ☺

Arbitrary decisions aren't necessarily bad—sometimes they are necessary. When two parties disagree, they sometimes use arbitration to settle the issue. An unbiased judge, trusted by both sides, makes a decision that he feels is the fairest.

It's the Rule!

Pedro argues that biological classification is not arbitrary because there are rules determining how living things should be classified. Scientists don't just assign creatures to various groups on a whim. Therefore classification isn't arbitrary.

He's partly right. The assignment of creatures to various groups isn't arbitrary because it is done according to established rules. We don't dispute that.

What Pedro fails to recognize is that the classification rules themselves were created arbitrarily, and change arbitrarily.

[10] http://www.merriam-webster.com/dictionary/arbitrary

As Pedro himself said, "At the time of Bakker's publications the prevailing school of systematics was the Darwinian 'evolutionary systematics'. Nowadays cladistics is regarded as superior to evolutionary systematics." It was an arbitrary decision to replace evolutionary systematics with cladistics.

Pedro falls into a paradoxical rabbit hole that leads him to conclude that "all birds are reptiles" because "groups are not formed based in similarity, but in relatedness." It is difficult to measure similarity; but it is impossible to measure relatedness without genealogical documentation.

Imagine three girls, Alice, Betty, and Carol, who are nearly identical. The only differences are that Alice and Betty have blue eyes, but Carol has brown eyes; and Alice and Carol have straight blond hair, but Betty has curly black hair. Which girl, Betty or Carol, is most similar to Alice? What is more important, eye color or hair color? It is an arbitrary decision.

Here's the harder question: Which girl is most closely related to Alice? If you don't have any genealogical records, there is no way to tell.

You might think that DNA could be used, but over the years we've given many examples from the professional literature where DNA analysis produces results that are counter-intuitive at best (and absolutely ridiculous in some cases).

Cladistics

Pedro says, cladistics is an "unbiased way of classifying organisms." Let's start with Webster's definition of cladistics.

> **Definition of cladistics**
>
> : a system of biological taxonomy that defines taxa uniquely by shared characteristics not found in ancestral groups and uses inferred evolutionary relationships to arrange taxa in a branching hierarchy such that all members of a given taxon have the same ancestors [11]

The foundation of cladistics is biased because it uses an evolutionary assumption! Furthermore,

> The outcome of a cladistic analysis is a cladogram – a tree-shaped diagram (dendrogram) that is interpreted to represent the best hypothesis of phylogenetic relationships. Although traditionally such cladograms were generated largely on the basis of morphological characters and originally calculated by hand, genetic sequencing data and computational phylogenetics are now commonly used in phylogenetic analyses, and the parsimony criterion [that is, the criterion that requires the fewest evolutionary changes] has been abandoned by many phylogeneticists in favor of more "sophisticated" but less parsimonious evolutionary models of character state transformation. Cladists contend that these models are unjustified.
>
> Every cladogram is based on a particular dataset analyzed with a particular method. Datasets are tables consisting of molecular, morphological, ethological and/or other characters and a list of operational taxonomic units (OTUs), which may be genes, individuals, populations, species, or larger taxa that are presumed to be monophyletic and therefore to form, all together, one large clade; phylogenetic analysis infers the branching pattern within that clade. Different datasets and different methods, not to mention violations of the mentioned assumptions, often result in different cladograms. Only scientific investigation can show which is more likely to be correct. [12]

This "unbiased" method gives different results depending upon which "sophisticated" model you chose, what data points you chose to use, and how you chose to use them. The only way to determine which result is most likely to be correct is to use "scientific investigation" to find the results that agree with your prejudice! ☺

Evolutionary "Truth" Changes

Since science no longer depends on the scientific method (which uses experiments that always give the same results no matter who does the experiment, regardless of the beliefs of the experimenter) to determine truth, evolutionary "truth" changes to suit the prevailing opinions of scientists. Pedro claims, "All science evolves."

Scientific truth doesn't change. Newton's laws of motion aren't wrong. F = ma is still true. Yes, we have learned more laws of motion for special cases; but what was true in Newton's day is still true today. Old physics textbooks aren't wrong.

Old biology textbooks contain facts that are no longer true. Since belief about the metabolism of dinosaurs isn't based on the scientific method, dinosaurs can be cold-blooded in one textbook, and warm-blooded in another, depending upon the arbitrary declaration of a consensus of scientists. Pedro says this isn't an opinion—it is an idea supported by several lines of evidence. What's the difference?

Science has been so corrupted that even professionals confuse speculation with science.

[11] http://www.merriam-webster.com/dictionary/cladistics

[12] https://en.wikipedia.org/wiki/Cladistics

by Lothar Janetzko

Evolution: Science or Creation Story?

http://www.faithfacts.org/evolution-or-creation/evolution-science-or-creation-story

Faith Facts finding facts for life's tough questions

This month's website review looks at an article found on the faithfacts.org website. In the introduction, the following statement is made: "The uninformed are sometimes of the opinion that the debate over evolution is about science versus the Bible. This could not be further from the truth. The modern debate is about whether or not science itself supports the theory of evolution. This article is about the scientific problems of Darwinism."

The point is made that "there are, it seems, two definitions of science. One is to look at the facts, test the hypothesis, and see where it leads you---even if you don't like it. … or start with a definition of naturalism, and look only at the pieces which fit that philosophy."

The article continues by surveying several books that present their arguments about the "growing problems for evolution".

The issues discussed are grouped into the following four categories: 1) Problems w/Darwinian Mechanism, 2) Problems of Building Consistent Evolutionary Tree, 3) Problems from Unexplained Anomalies and 4) Is Darwinism Good Science (or Bad Philosophy)?

On the main page of the website you will find links to the above mentioned categories which lead to separate web pages which provide the detailed discussion of the category. For example, the first category, Problems with the Darwinian Mechanism, discusses 1) The Problem of the Obvious, 2) The Problem of Reverse Complexity, 3) The Problem of Irreducibly Complex Systems, 4) The Problem of Survivability of Intermediates, 5) The Problem of the Missing Models, 6) The Problem of First Life, 7) The Problem of Deleterious Mutations, 8) The Problem of Mathematical Improbability and 9) The Problem of Cosmology. Thirty-five problems in total are addressed by the various categories.

By following the links to the various categories, I am sure the reader will find topics of interest in understanding the scientific problems of Darwinism.

On the various web pages, you will find links to several books including page numbers and links to additional resources. On the home page there is also a link to Resource List, referencing 15 different books including a short description of the books' content.

Twenty-first Century Science Against Evolution

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Disclosure, the Science Against Evolution newsletter, is edited by R. David Pogge.

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