

WitnessKit 2

God And Creation

Class 18

Fossils and Facts and Family Trees and PhDs

Evolution has two kinds of data available to confirm or contradict the theory.

One kind of data is found in the fossil record—mostly petrified bones and sea shells, plus some soft-tissued animals that have petrified.

- This is the historic data, but it cannot tell actual ancestry. Ancestry is organized based upon similarity of structure—called morphology.
- The fossil record is incomplete, because special circumstances are necessary to make a fossil.

The other kind of data is genetic, and most of that data is present-day, modern data.

Today we have three broad topics.

- We want to see how the fossils and the theory of evolution are connected.
- We will look at fossil information, and we will think about logic. What are the logical limits on truth statements from the data?
- We especially want to see why the bio-science are closed to Intelligent Design.

During Charles Darwin's Era

- The fossil record had many gaps. Darwin expected the gaps to be filled with supportive data as scientists explored more fossil beds.
- Many new fossils **HAVE** been found. The results Darwin expected have **NOT** been found. Since his theory is a historical theory, and the fossils **are** the historical data, this is a big problem.
- Some evolutionists have acknowledged this problem.

Explanation Plan B

- Stephen J. Gould and Niles Eldredge developed a new theory called Punctuated Equilibrium to avoid Darwin's data problem.
- Punctuated Equilibrium means sudden, quick bursts of evolutionary change, on a long time scale, followed by stasis.
- Gould and Eldredge postulated that evolution takes place much faster when environmental stresses are increased.
- Dr. Gould described the need for the new idea as follows.

Evolutionist Dr. Stephen J. Gould said 2 features of the fossil record are inconsistent with gradual evolution:

1. Species are often static for the duration of their existence.
2. Sudden, fully formed appearance is the norm in the fossil record, rather than gradual change.

Attorney Phillip Johnson analyzed those statements: "In short, if evolution means the gradual change of one kind of organism into another kind, the outstanding characteristic of the fossil record is the absence of evidence for evolution."

Both Plan A and Plan B

- Darwinism and Punctuated Equilibrium assume that only material processes were involved in the changes they claim.
- The difference between their two ideas of evolution are extremely large.
- The fossil record does not support Darwinism's mechanism for slow gradualism.
- Punctuated Equilibrium has no mechanism for quick change. It admits quick change appears to be the case among the fossils.
- So BOTH Plan A and Plan B don't seem to work very well in terms of the data. Doesn't that mean Plan C should be considered?

If Intelligent Design is Plan C

Why did professional scientists and the courts say it cannot be considered?

We can begin to understand why the discussion of origins is one-sided

Factors in the one-sided discussion

By understanding these factors.

1. **How bio-scientists deal with the fossil record.**
2. The nature of the PhD process
3. How bio-scientists know what they know
4. Where evolutionists draw the line between fact and theory.

The Problem with the Fossil Record

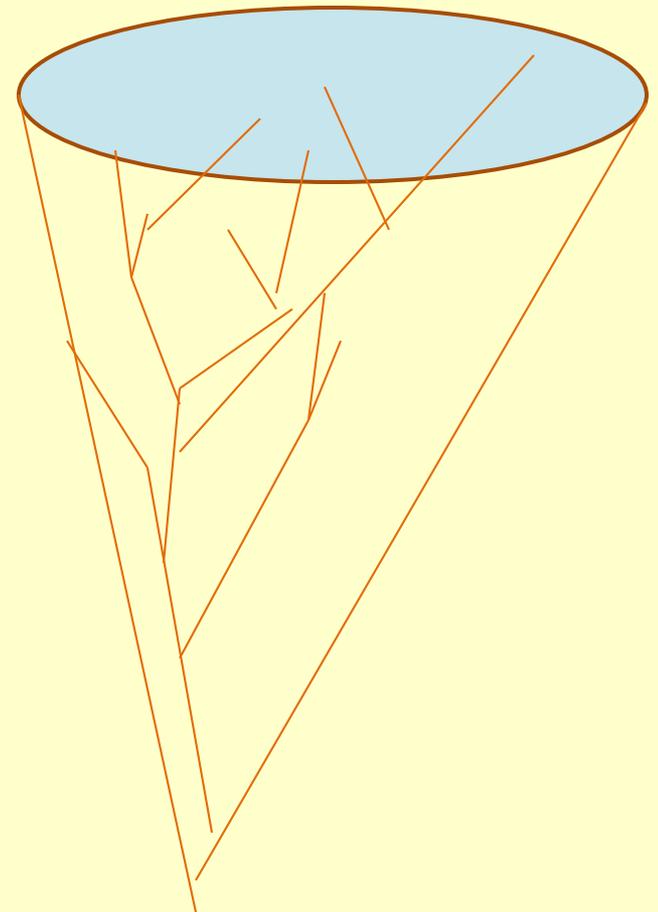
Charles Darwin admitted that the fossil record of his era did not show the multitude of intermediate forms that would be expected if his theory of evolution were true. He expected myriad missing links to be found.

One part of the fossil record called the Cambrian Era shows a sudden huge variety of fossil forms without any ancestors bridging the gaps between body plans.

This is called the Cambrian Explosion.

If Darwin's theory were true

- The fossil record should look like an inverted cone, with gradual branching expansion of forms over time.
- Forms should blur into one another, with myriad transitional forms.
- The farther away body plans are from each other, the more transitions you would expect.



Mathematically Speaking

- Darwinism claims incremental change as a mechanism for all change.
- In math, functions must be continuous for incremental change to act as a mechanism, or incrementalism can only be a mechanism where a function is continuous.
- The biosphere is not continuous. Discontinuities exist all over the “tree of life.” Discontinuities exist in numbers of chromosomes in varying species.
- Discontinuities exist all over the genome of every creature.
- Discontinuities exist all over the fossil record.
- It is mathematically counterintuitive to claim Darwinism is true.

Mathematically Speaking

- Incrementalism is reversible. Darwinism claims incrementalism for irreversible change.
- Once again, Darwinism is mathematically counterintuitive.
- If incrementalism were the mechanism for biological change, new fossil finds SHOULD have filled in the discontinuities.
- The tree of life should be more connected than it can be drawn from the fossils.

Because the fossils do not fit

- Incremental Darwinism, a new explanation has been developed. It is called Punctuated Equilibrium.
- It basically says that evolution must happen very rapidly during times of environmental stress. Therefore, the transitions do not have time to get into the fossil record.
- This is an argument from absence of data, so it is a rather weak argument.

If Punctuated Equilibrium were true

Evolution would occur rapidly in some sequences, so the fossil record would be expected to have some gaps.

The fossil record should look like a broader inverted cone, with gradual expansion of forms over time and some fast transitions.

Still, changes between body plans should be gradual, with more transitions, the further apart the body plans are.

What we actually see in the fossil record is different.

- We do not see any transitions between body plans—no transitions between phyla. We do sometimes see what MIGHT be transitions among creatures close together in body plan—like sea urchins.
- We also see some animals showing stasis—they stay the same the entire time they are in the fossil record, such as sharks.

What we actually see in the fossil record is different.

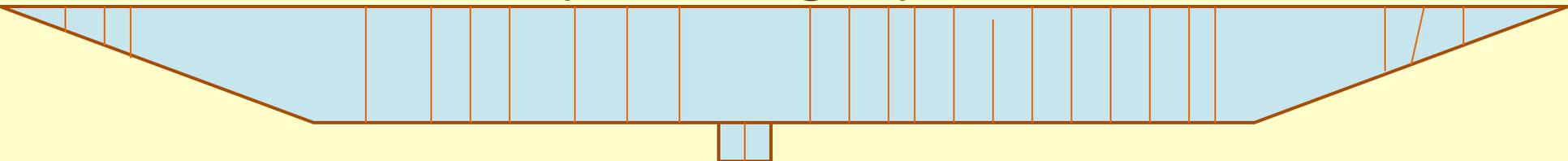
- We also see many extinctions. Extinctions would be expected and would be consistent with the theory.
- Many additional unseen extinctions are assumed to have happened, because they are necessary for the theory.
- Even the extinctions are described from absence of data.

The Biggest Fossil Problem for Darwinism

- Is called the Cambrian Explosion.
- Suddenly, in a moment of geologic time, MANY body plans show up at once, with no ancestors in the fossil record.

2. The fossil record introduced most body plans at the same “moment” of fossil history.

- The real picture is more like an anvil than an inverted cone – a few very simple organisms at the base, and then 95% of the rest in a big trapezoid. No transitions are seen between body plans anywhere.
- All of this discussion uses the evolutionary dating system intact.



The Cambrian Explosion: a Few Caveats

- The theory of evolution is intertwined with the dating of the rocks in the geologic column.
- Sedimentary rocks and metamorphic rocks are dated by INDEX fossils. Shale beds are sedimentary rocks. The Cambrian fossils on the DVD *Darwin's Dilemma* were found in shale beds.
- Many fully formed body plans of animals appear suddenly in the Cambrian era, with **no ancestor fossils** that bridge between plans. Even if you accept the dating of the rocks, these fossils do not fit the theory.

A bit more detail is in order here regarding the geologic column.

- The geologic column is a composite of fragmentary portions around the world—if the entire column were present in any one place it would be about 100 miles thick.*
- So the **story** of evolution has a great deal to do with the **picture** of the column.
- Much of the story and much of the picture is composed of **inferences** rather than data.

*Column information from A Beka BIOLOGY, 1997 ed.

On the theological side...

- If the Bible is correct about a worldwide flood, such a catastrophic event would disrupt the geologic column.
- The possibility of a worldwide flood makes the composite, progressive picture from simple forms to complex life forms very questionable.
- A large-scale flood is a likely agent for the formation of fossils, burying them deep enough to fossilize.

On the theological side...

- If you accept the geologic column at face value, you are likely to lean toward the Day-Era theory of interpreting Genesis chapter 1.
- If you are skeptical of the dating methods and the way the column is constructed, and ...
- If you accept the idea of a worldwide flood...
- Then you are more likely to accept the Gap theory or the Young Earth theory of interpretation.
- In any case, the fossil record, taken as a whole, is not very helpful for the theories.

The New Testament Predicts

That in later years a time would come where people's worldviews would shift. People would assume everything is just as it has always been, without intervention from God.

The prediction describes the present age of skepticism very well.

- **2 Peter 3:1-4(NKJV)**
- ¹ Beloved, I now write to you this second epistle (in *both of* which I stir up your pure minds by way of reminder),
² that you may be mindful of the words which were spoken before by the holy prophets, and of the commandment of us, the apostles of the Lord and Savior,

The New Testament Predicts

- ³ knowing this first: that scoffers will come in the last days, walking according to their own lusts, ⁴ and saying, "Where is the promise of His coming? For since the fathers fell asleep, all things continue as *they were* from the beginning of creation."
- ⁵ For this they willfully forget: that by the word of God the heavens were of old, and the earth standing out of water and in the water, ⁶ by which the world *that* then existed perished, being flooded with water.

New Testament Perspective

The New Testament predicts

- An age of scoffing, where people deny the intervention of God in earth's events.
- The Apostle Peter also predict a denial of the worldwide flood as part of that skepticism.
- The New Testament treats the flood as a real event—and an example of God's intervention in earth events.

A Worldwide Flood

Would be consistent with many categories of fossils showing up at the same moment of earth's history.

A flood that buries animals suddenly and deep is an effective way to create fossils. They are protected from deterioration due to bacteria in the first few inches of topsoil. They are protected from scavengers. They are likely to land in low spots where mineral water seepage could fossilize them over time.

Keeping those ideas in mind,

Here is some more detail about the Cambrian Explosion.

2. The fossil record introduced most body plans at the same “moment” of fossil history.

- Before the Cambrian we only see 2 kinds of bacteria plus algae and a few simple creatures like sponge embryos.
- Suddenly at the Pre-Cambrian/ Cambrian boundary,
 - ▣ Over 95% of the phyla appear.
 - ▣ (Classification follows this set of categories, from broad to narrow: Kingdom, Phyla, Class, Order, Family, Genera or Genus, Species.)

Detail:

- The 95% figure depends to some degree on how terms are defined.
- More specific data are that 3 or 4 phyla have been found earlier than the Cambrian. 19 then appear at the Cambrian, including Chordata. 6 appear later, and 12 phyla do not have any fossils. The Cambrian era has a sudden explosion of life, with many trilobite fossils, plus other marine invertebrates such as shells, plus some vertebrates—in the phylum Chordata.
- Chordata is the phylum that includes mammals, **which would be expected to appear last** in the classical Darwinian view.

2. The fossil record introduced most body plans at the same “moment” of fossil history.

- At first appearance, each plant or animal is fully formed.
- It is unexpected for so many to appear at one time.
- They vary drastically in body plan, but no transitions between these plans show up anywhere—and certainly not among the earlier bacteria, algae, and sponge embryos.

2. The fossil record introduced most body plans at the same “moment” of fossil history.

- The huge gaps between kinds of living things show up in the first 5% of habitable geologic time, and the first 1.7% of geologic time for animals.
- The remaining 95% of the habitable geologic record still has the gaps between body plans.
- This does not really fit punctuated equilibrium, either. One would expect an broader inverted cone of fossil forms, with some transitions in thin strata.

Background Detail: More About the Cambrian Explosion

- You can find out more at Discovery Institute's "An Analysis of the Testimony of Professor David Hillis before the Texas State Board of Education on January 21, 2009," www.discovery.org/a/9941
- The data are MUCH more a match with an Intelligent Design cause than an incremental unguided change cause.

If the DVD is available, this is a great time to watch the second to last scene from

DARWIN'S DILEMMA: The Mystery of the Cambrian Fossil Record

If incremental change

- Is not the correct answer to the large gaps between body plans, what is?
- What sort of agency could make discontinuous changes in living creatures?
- We know that humans can clone animals. That is a discontinuous change, and it is accomplished by intelligent planning. Humans can change the information in cells by cutting and splicing the information-carrying items.

Why is academia so closed to

The idea of Intelligent Design?

One answer lies in the process to obtain a PhD.

We can begin to understand why the discussion of origins is one-sided

Factors in the one-sided discussion

By understanding these factors.

1. How bio-scientists deal with the fossil record.
2. **The nature of the PhD process**
3. **How bio-scientists know what they know**
4. Where evolutionists draw the line between fact and theory.

A Problem Exists

- For students trying to obtain PhDs in fields like paleontology or paleo-anthropology.
- The fossils don't help the theory, and the theory is what research must fit to be approved.
- A scientist named Niles Eldredge, one of the originators of Punctuated Equilibrium, explained it like this....

Eldredge writes *“Either you*

Stick to conventional theory despite the rather poor fit of the fossils, or you focus on the empirics and say that saltation looks like a reasonable model of the evolutionary process—in which case you must embrace a set of rather dubious biological propositions.”

- (Johnson’s definition of saltation is that “a new form appeared out of nowhere, and we haven’t the faintest idea how.”)

Eldredge continued:

*“Complicating the normal routine is the hassle of obtaining a PhD. **A piece of doctoral research is really an apprenticeship**, and the dissertation a comprehensive report that shows the candidate’s ability to frame, and successfully pursue, an original piece of scientific research. Sounds reasonable, but the pressure for results, **positive** results, is enormous.”*

- By positive, he means results that support Darwinian theory.

We must understand that “Believing in Unguided Evolution” is the only path

Factors

into a bio-sciences career because of these factors:

1. **Evolution is the only unifying theory of the bio-and social sciences.**
2. **Evolutionists view the unifying theory as more vital than any data.**
3. **The PhD process is a five to ten year apprenticeship with no checks and balances.**
4. **That apprenticeship is the only gateway into the academic profession.**

Evolution is the only unifying theory in the Bio- and Social Sciences.

The university is divided into fields of study: the arts, the sciences, the humanities, business, and education, with the professions branching out from the undergraduate fields via law schools or medical schools.

For the biological and social sciences to be science, they need a unifying theory.

Otherwise, they risk being as fractured and confusing as the humanities and the arts. To BE SCIENCE they need a unifying theory.

Evolution is that unifying theory.

- Evolution is the glue that holds the social and bio-sciences together. It is the overarching idea around which everything else is organized. If it dissolves, everything that is considered KNOWN in those fields becomes questionable.
- Prior to Darwin, these fields were organized to some degree around a core of theological beliefs,
- and ***theology*** was called “the queen of the **sciences.**”

How we KNOW is the philosophical field called *Epistemology*

- The most important philosophical issue of the twentieth century was the question of **how we know anything, and how we know that we know it.** The humanities lost the glue that holds knowledge together—the universal ideas about what is true or not true and how to find out. They became “postmodern” fields. The sciences held on to some ideas longer than the humanities, but all fields need an organizing structure.

How we KNOW is the philosophical field called *Epistemology*

- Unguided evolution is the epistemological base for all social and biological research. It is the organizing structure for the field.
- Evolution is the thing the bio and social scientists think they know. It becomes their basis for everything else they do.
- It is their paradigm.

Because Evolution is that Base

- The biological and social scientists view it as more important than any data, pro or con. Data are often messy and inconvenient. Data often are somewhat murky even under the best conditions.
- The theory is considered an elegant framework into which the data fit.
- When someone doubts the epistemological base for the science, he is viewed as a wrecker of everything science stands for.

Evolution Is That Epistemological Base and ...

- Bio-scientists love science. They often view it as the source of progress for the future. They view someone who would take away that progress as a person to be stopped.
- The biological and social scientists have spent many years carving out a career for themselves in their respective fields. If someone is a heretic of their base of science, he is automatically cast out of their academic temple as a threat to their existence.

In addition, academia

- Can only become a career via the PhD process.
- The current professors control who obtains the PhD.
- The professors are able, for the most part, to keep those pesky religiously oriented people out of the social and bio-sciences.
- Occasionally a “heretic” will slip through the process, or a person will “convert” after achieving the PhD, but for the most part the gatekeepers are triumphant.

In the five to ten years required to obtain the PhD, the professors will

- Know their graduate students' views regarding evolution.
- There are no checks and balances on the process.
- There are no incentives for producing new professors—the students who graduate become competitors for jobs.
- There are **especially** no incentives for producing mavericks as competitors.

That apprenticeship is the only gateway to a job in academia.

- The graduate student has **no** chance of both bucking the system and graduating.
- No jobs exist in academia without the PhD.
- The apprenticeship requires 5 to 10 years to achieve the PhD.
- Then another year doing research at another institution, called “Post-Doctoral Research,” generally follows.

Then the Job Market Takes Center Stage.

- Then the new PhD has another 3 years as an assistant professor,
- Then the question of tenure comes up.
- If a professor is denied tenure, he loses that job and will probably be ineligible for another. If he gets tenure, he will become
- An associate professor and then after a few more years
- A full professor.

Every step in that process ***assures conformity to the prevailing norm.***

- A candidate will be guaranteed to never have any job security or certainty of reward for all that effort until he is at least 33 to 35 years old, and maybe older.
- He will almost certainly conform.
- All of this works against open debate in the bio- and social sciences about unguided evolution.

All of this works against the belief systems of the students in the universities

because they hear ONLY ONE point of view. It actually works against education in a very real way, because the universities become islands of conformity to one-sidedness in each field. New research tweaks toward only one side.

We can begin to understand why the discussion of origins is one-sided

Factors in the one-sided discussion : How they think about this.

By understanding these factors.

1. How bio-scientists deal with the fossil record.
2. The nature of the PhD process and how bio-scientists know what they know
3. **Where evolutionists draw the line between fact and theory**

Review: Gould explained these features of the fossil record as inconsistent with gradual evolution:

- Species are often static for the duration of their existence.
- Sudden, fully formed appearance is the norm in the fossil record, rather than gradual change.
- Johnson analyzed those statements: "In short, if evolution means the gradual change of one kind of organism into another kind, the **outstanding characteristic** of the fossil record is the absence of evidence for evolution."

We can understand where to draw The line between fact and theory

Places to draw the line between fact and theory

- By understanding where Stephen Jay Gould drew the line and
- Where Philip Johnson drew the line.
- Then we must decide where we believe the line should be drawn.

Gould 's article, "Evolution As Fact and Theory," Explains the distinction

between scientific theory and fact as follows.

"Facts are the world's data.

Theories are structures of ideas that explain and interpret facts.

Facts do not go away while scientists debate rival theories for explaining them. Einstein's theory of gravitation replaced Newton's, but apples did not suspend themselves in mid-air pending the outcome.

Gould 's article, "Evolution As Fact and Theory,"

And human beings evolved from ape-like ancestors, whether they did so by Darwin's proposed mechanism or by some other, yet to be identified."

Gould is claiming evolution from an ape-like ancestor as Fact, and the dispute about "Neo-Darwinism" or "Punctuated Equilibrium" or some other mechanism as theory, subject to revision.

Philip Johnson's Comments

- Philip Johnson says the analogy is spurious, and he is right. Here is why.
- We SEE apples fall from trees. We do NOT see ape-like creatures turning into human beings.
- We do observe that apes and humans are more similar biochemically than they are to reptiles or whales. The ape-like common ancestor is a hypothesis for explaining those common traits.

Gould places “evolution” in the fact category and “natural selection” In the Theory category. Why?

Gould thought natural selection was less important than random spread of genes through populations without selection—considered **neutral** change rather than favorable or unfavorable change within populations. Gould still claimed natural selection as needed to produce new structures such as eyes or wings.

- He claimed **as fact** the unguided descent with modification from common ancestors.

Gould is saying the line is
between evolution from common
ancestors—fact—

And the mechanism of
evolution—theory.

Philip Johnson is saying the line

Between fact and theory is at a different place.

The line is between **what we observe**—the similarities and differences in bio-chemistry and structural organization between species—with some nearer humans and others farther away...

And the organizing of such data into an explanation, a theory—such as unguided descent with modification or intelligent design along body plans purposefully developed.

Philip Johnson said The Line
should be between what we
observe—fact—

And how we explain what we
observe—theory.

The unguided descent with modification idea

As an explanation of similarities and differences and origins among ALL species...

- Cannot be tested in a laboratory.
- If it happened that way at all, it took place in the distant past.
- Only the fossils offer a glimpse of history, and that glimpse is very spotty.
- So it seems presumptuous to call something a scientific fact that **cannot be observed** but only **believed**, considering the fragmented nature of the historical evidence.

In addition,

- the UNGUIDED portion of the idea of descent with modification is an **assumption**—which the fossil record cannot demonstrate.
- The fossils are silent regarding purpose or lack of purpose in their appearance.
- The question we **can** ask, though, is whether the fossil record **appears as it should** if the theory of unguided evolution is correct.

If the theory called Neo-Darwinism

- Were correct, we would expect the fossil record to have myriads of intermediate forms so that the species would historically **blur into one another** over time. We would expect large differences in body type to reveal many more intermediates than small differences in body type.
- The fossil record does not do that. In fact, the really big differences at the level of phyla have ZERO intermediates.
- So the fossil record does not seem to support a Neo-Darwinism mechanism for unguided evolution.

This brings us to Gould's mechanism

Called punctuated equilibrium. It explains the lack of intermediates as being due to large changes happening at a very fast pace, so that the intermediates do not have time to become fossils.

He suggests that those changes may occur in the coding for embryonic development rather than in the ordinary DNA of the nucleus of each cell.

This brings us to Gould's mechanism

However, he does not explain a mechanism that would account for suddenly different new creatures just based on random changes.

For example, an animal may have a different number of vertebrae

comparing say, a wild horse to a Morgan breed.

That difference is indeed a micro change at the embryonic level, since it merely duplicates instructions present in the cell an additional time.

New Organ Systems are a Different Kind of Change.

That micro embryonic change is **not** the same thing as going from a light sensitive eye-spot to fully formed eyes,
with associated brain software to interpret signals from rods and cones,
plus a lens
and musculature structure to control focus
and a retina with its complex blood supply and chemistry.

The change from light sensitive

Spot to fully functioning eye is NOT a micro change at the embryonic level.

- It is hard to see how such **really** complicated **and** coordinated changes can occur at random, without purpose from any outside intelligence.
- It seems to me that Gould's mechanism is not plausible for explaining the big gaps if it is assumed a random mechanism.

The real question is guided versus unguided change.

That is a question the fossil record cannot answer. So it is presumptuous to call an explanation **a fact** that simply **assumes** an answer.

Darwin took the incremental methods of calculus

- And applied them to biology.
- For those methods to work in calculus, the functions **MUST** be continuous. Incremental methods do not apply at discontinuities.
- The fossil record is full of discontinuities. The fossil record does **not** support an incremental mechanism to explain the gaps.

Punctuated equilibrium

- is an attempt to make sense of the gaps.
- It does so by assuming that change happens quickly **and in a coordinated way**, with multiple changes at once. This is an argument from ABSENCE of data, and with no explanation for how the changes work together if they are from a random source.
- He also assumed neutral changes that feed through populations incrementally could impact overall change.
- Neutral changes would be reversible, and would not explain permanent shifts.

In contrast, Intelligent Design

attempts to make explanations from the PRESENCE of data. It uses the mathematical tools of complex specified information to imply intelligent causation. It sets the bar very high, and looks at information in nature, and at external patterns that the information matches. A match between an extremely rare event and an obvious independent pattern requires an intellectual bridge. That bridge is intelligent design.

So the mathematics of
Intelligent Design are more
appropriate

Than the mathematics of
continuous incremental change
where discontinuities exist.

An important question remains:



Since unguided descent with modification is the organizing theory and the epistemological base of the bio-sciences and the social sciences, how is it possible to pry the door of inquiry open to allow discovery of intelligence in nature?

We have the mathematical tools. We need the persuasion tools.

An important question remains:



How do we pry open the door of academia and academic research to be able to USE the math tools, when the topic threatens the unifying theory of the gatekeepers?

How do we break the logjam that fear of job loss has created?

Should we work at the level of the accrediting agencies?

The alumni associations?

The legislatures regarding accrediting rules?

Are there religious universities

Which might lead the way in this matter?

- The universities in question need to have **graduate schools**, including the level of granting the PhD.
- The universities in question need to have courageous faith to proceed with a controversial issue.
- Baylor started and then drew back from the brink of new discoveries because the other **PROFESSORS** objected so strongly.

Baylor

- Closed their research center on Intelligent Design. The other professors feared never finding another place to be hired if their university had such a center.
- The mathematician who defined the math is now teaching at a seminary. One typically does not take math courses at a seminary.

Who can lead the way?

- Those professors who shut ID out may have been afraid ID would make Baylor a **career dead-end**.
- Many of The flagship universities of our nation started as religious schools and then became secular.
- It would be a blessing to the nation for a university to start as a religious school and blaze a path in the sciences for an integrated worldview.

In the mean time,

- We have a responsibility before God to ask Him for ideas to share in our own sphere of influence.
- This field of study has eternal implications.
- Our students going to universities need to understand the one-sidedness of their education. They need to look for more open sources of facts and their interpretation. Truth may only be available outside official channels.
- Students need a truth sense to aid them in sifting for sources.

Proverbs 30:5

Every word of God is tested. He is a shield to those who take refuge in Him.

Homework

In 3 sets

Homework Lesson 18 Set 1

- Read James 3:13-18
- What is the description of godly wisdom? Is godly wisdom one that compromises with what is false? Is godly wisdom one that is silent in the face of false speech?
- How do you reconcile the need for speaking truth about controversial issues with the way it is done and the potential for ugliness?
- Read chapter seven in DARWIN ON TRIAL.
- We have covered the material in this chapter in detail in OF PANDAS AND PEOPLE.

Homework Lesson 18 Set 1

- Do you notice any new information about the African Eve experiment and its results?
- What does this chapter say is required to have chemical evidence of macroevolution?
- What are some of the facets of the genetic information that are problematic for evolutionary theory?
- Does “relationship” of similarity confirm “ancestry” in terms of either skeletal data or genetic data?

Homework Lesson 18 Set 1

- What point does Philip Johnson make about the molecular clock idea?
- Why is that a problem?
- Can incrementally small changes in genetic chemistry produce new organs and the working systems required to make them functional?
- Can random mutations do this? If multiple genetic changes are necessary to make a new organ functional, can natural selection preserve new non-working organs long enough for new mutations to make them functional?

Homework Lesson 18 Set 1

- Does the idea that changes must confer benefit to the organism (and its survival plus reproductive success) match a scheme of new and useless partial systems waiting for the right additional mutations to make them useful?
- Do we see an array of useless partial systems in our present biological environment, still waiting for new and handy mutations?
- Do you see incrementalism in changes which only work if they are rare and coordinated?

Homework Lesson 18 Set 2

- Read Acts 26: 15-18
- When Paul's task was to pry the scales off someone's eyes, did everyone respond peaceably to his message?
- Read Chapter Eight in DARWIN ON TRIAL.
- In the beginning of the very first living organism, science is on a collision course with itself. One of the first discoveries of modern biological science was that spontaneous generation does not occur. Yet evolution from a materialist standpoint requires it, and even calls it fact. Is this contradiction weighty enough to question unguided evolution as a paradigm? Why or why not?

Homework Lesson 18 Set 2

- Do you find Gould's critique of Scalia misleading?
- How does Philip Johnson describe the basic difficulty in non-scientific terms?
- How does Philip Johnson describe the dead end of the Miller Urey experiment?
- What is the logical problem with the idea of "directed pan spermia" as the source of life on this planet?
- What purpose does Philip Johnson see for science if it opens the door to allow acknowledging the possibility of a Creator's existence?

Homework Lesson 18 Set 3

- Read Acts 11:18
- When people have chosen a false belief system because they do not want to be accountable to God, who is able to overcome that decision?
- What role does prayer play in the attempt to open people's eyes to the truth of God's existence?
- Read Chapter Nine in DARWIN ON TRIAL -- "The Rules of Science."

Homework Lesson 18 Set 3

- What does Philip Johnson call the essential point of creation?
- What basic misunderstanding did Judge Overton, of the 1981 decision against creation science, have about the terms creation and evolution?
- What did Philip Johnson mean by saying that empiricism and naturalism are in conflict over the issue of origins?

Homework Lesson 18 Set 3

- What priority appears to be more important than empiricism --experiments and their results – in the view of the scientific establishment, and why does Johnson think that is the case?
- What tactics have been used by the scientific establishment to maintain their superior position of expertise and the power it wields?

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If this chain of ideas describes science:

- The truth of science is derived from empiricism.
- Empiricism is subordinated to philosophical materialism in the question of origins.
- Questioning the orthodoxy of unguided change is not allowed.
- Does that process of closing off inquiry divorce scientific origin studies from truth?

What do scientific paradigms have to do with the issues?