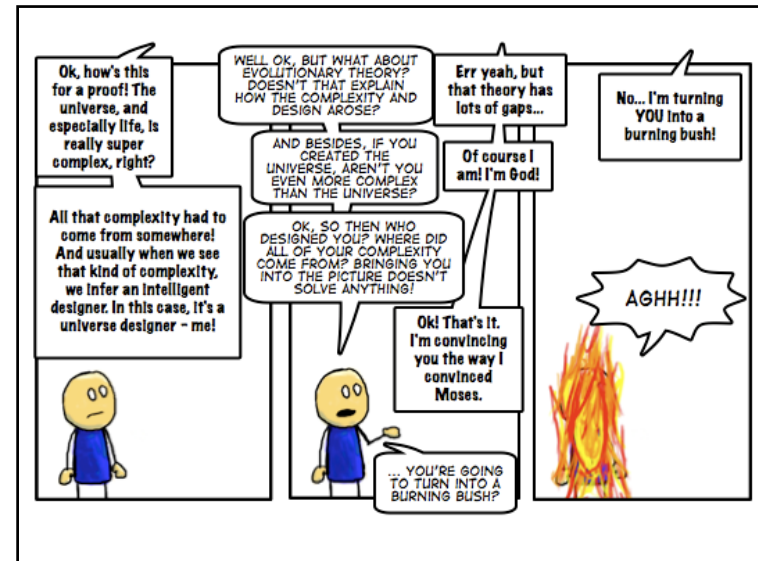# PHIL 1305

Creationism
and Evolution

Justin C. Fisher

What do we mean by "God"?

- **A person** (has thoughts, feelings, desires)
- **All-powerful** (omnipotent)
- **All-knowing** (omniscient)
- **Entirely good** (omnibenevolent)

All-PKG

Motivation for "Natural Theology"
(using observation to learn about God)

It seems coherent to imagine that our universe might have been designed by any of a number of different creators:

- a sick sense of humor?
- a sadist?
- a bit forgetful?
- lazy or indifferent?
- a conflicted committee?

To determine what personal characteristics (if any) the creator had, shouldn't we look to see what sorts of things it (supposedly) created?

Descartes: I want to show a perfect God exists without using any evidence from my senses. (God's presence will then persuade me to trust my senses.)

Descartes

Paley: I want to use evidence from my senses to show that God exists, and is as perfect as His creation. (My senses can persuade me to trust in God.)

Paley

Paley's (1836) Design Argument

Warm-up: What if we discovered a watch on the beach? By attending to the intricacy and complexity of the watch, it seems reasonable to conclude that it was made by an intelligent designer.

Now: When we look at the intricacy and complexity of the universe (or of living things), shouldn't parallel reasoning lead us to the same conclusion, namely that an intelligent being designed it?

Abductive Arguments
("inference to the best explanation")

Flipping the switch turns the light on.

If you rub a balloon on your head, then it will stick to the wall.

The theory of electrons predicts these things will happen, whereas other theories can't explain it.

So, we should believe in electrons.

Note: the conclusion uses further concepts (electrons) not used in the observations (lights, balloons) that support it.

The surprise principle

Observation: There's lipstick on Jack's collar.

H1: ~~Jack is busy with a big project at work.~~

H2: Jack is having an affair.

An observation does the most to support whichever hypothesis said that observation was least surprising (i.e., whichever hypothesis most predicted we'd make that observation).

If H1 were true, the lipstick would be surprising.

H2 predicts we might see lipstick (unsurprising).

So observing the lipstick favors H2 over H1.

Origins of the Solar System

**O:** The planets have stable orbits and don't crash into each other.

H-Random: The solar system started as a spinning cloud of randomly moving dust particles.

H-God: The planets and orbits were designed by God.

Which hypothesis says O would be more surprising?

H-Random predicts that gravity would pull dust into larger bodies, and bodies not in stable orbits would have collided long ago, leaving only stable ones now.

Does H-God leave all the <u>unlivable</u> planets surprising?
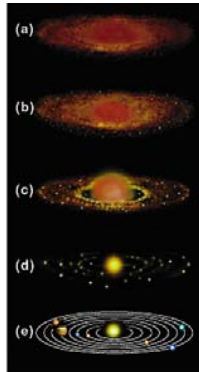
Origin of Complex Life?

Observation: Jack comes home late with lipstick on his collar.

H1: Jack is busy with a big project at work.

H2: Jack is having an affair.

Observation: Organisms are intricate, complex, and well suited to their environments.

H-Random: Modern species were produced by a purely random process.

H-Creationism: Modern species got their features from an All-PKG designer.

H-Evolution: Modern species got their features from evolution by natural selection.

Homework for Thursday

H-Random: Modern species were produced by a purely random process.

H-Creationism: Modern species got their features from an All-PKG designer.

H-Evolution: Modern species got their features from evolution by natural selection.

For each of these three hypotheses, what does that hypothesis predict our world would look like? What sorts of observations would be least surprising if that hypothesis was true? What sorts of observations would weigh strongly in favor of that hypothesis over the others?

(You may talk about real or imaginary observations.)

Some potential views

Theism: God exists.

Atheism: No god exists.

Agnosticism: We don't know whether God exists.

Creationism: Theism + the claim that God played an active role in giving modern species the features they have.
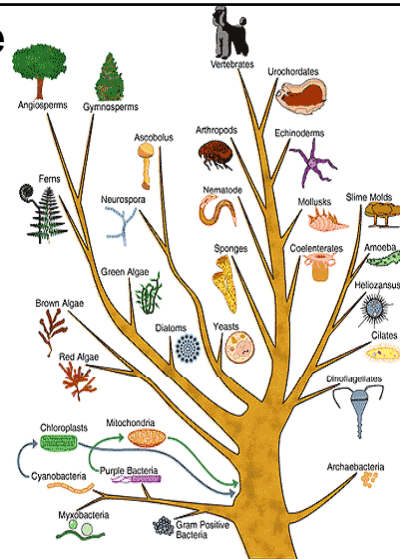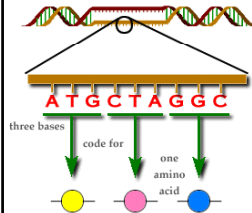
Evolutionism: Modern species got their features from evolution.

Theistic Evolutionism: God exists, but didn't play much role in creating modern species.

**Atheistic Evolutionism:** God played no role at all.

The Tree of Life

(1) Fossil evidence
(2) Agreement b/w genetic, phenetic, and geographic measures of relatedness.
(3) Universal genetic code.

Speciation

(1) Sometimes a species is divided into separate breeding popul'ns – e.g., some might be stranded on an island.

(2) This allows one population to accumulate quite different changes from the other.
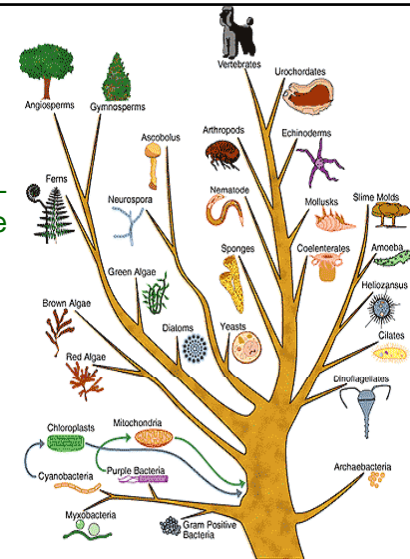
Selection

(1) **Variation** - different organisms have different traits
(2) **Heritability** - which traits offspring get depends upon which traits the parents had
(3) **Fitness** - some traits make an organism more likely to survive and reproduce.

## Irreducibly Complex Systems?

Behe (1996)

A system "composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning"

Darwin (1872)

"**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**…"
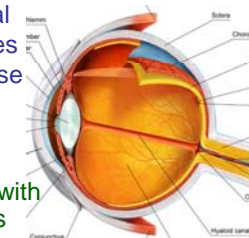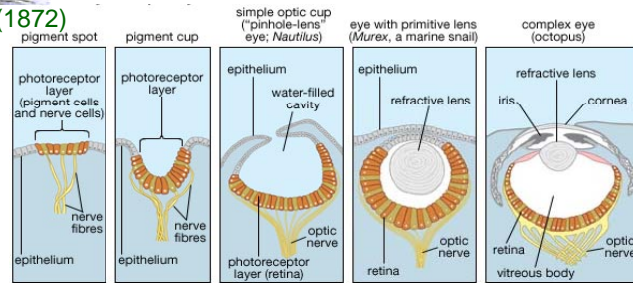
Darwin continues…

"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… [then a] complex eye could be formed by natural selection."
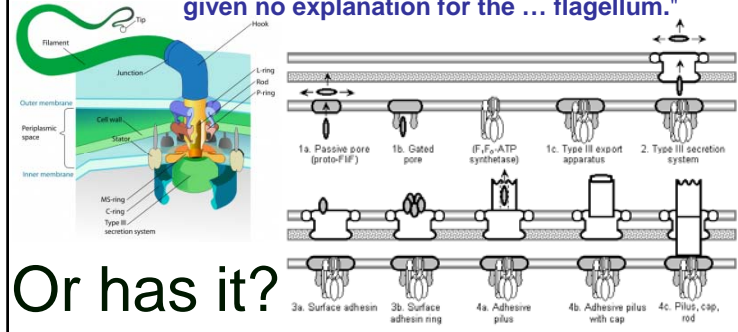
Darwin (1872)

Irreducibly Complex Flagella?

"As biochemists have begun to examine apparently simple structures like …flagella, they have discovered staggering complexity, with dozens, even hundreds of precisely tailored parts. **Darwinian theory has given no explanation for the … flagellum.**"
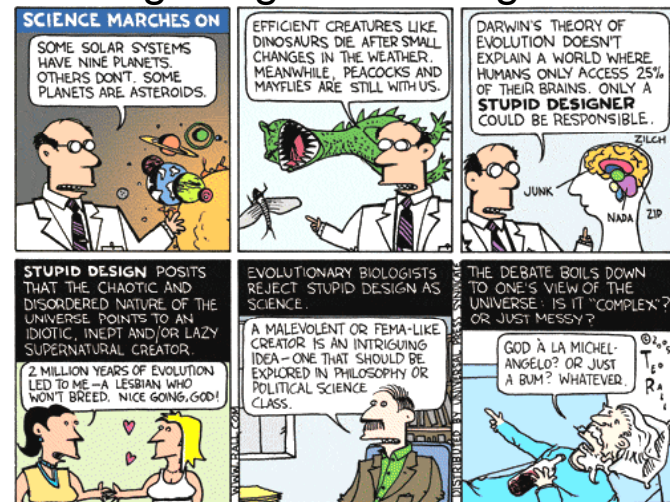
Behe (1996)

Or has it?

Creationist Wheel of Fortune:

EVOL T ON

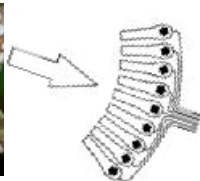That can't possibly be *evolution*! There are too many gaps!

That must mean the answer to the puzzle is *Creation*!

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Do living things look designed?

How well designed is our eye?

- Unlike Octopi, humans have nerves and blood vessels in front of the retina, blocking light!
- These also leave a blind spot where they go through the retina.
- Many humans become near- or far-sighted.
- Many of us get cataracts as we age.

These flaws aren't surprising from an evolutionary process that repeatedly adopts beneficial variations on old designs.

But is this what you'd expect from an All-PKG designer?

Other Strange Designs
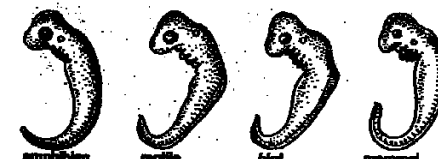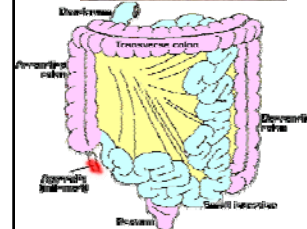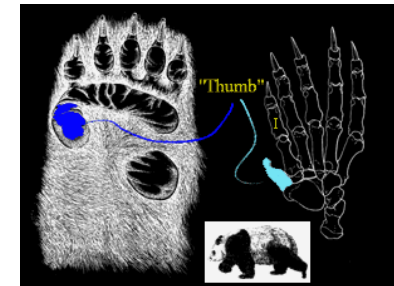
Exercise. How surprising is each of the following observations according to the two hypotheses?

H-Creationism: Modern species got their features directly from an omni-perfect designer.

H-Evolution: Modern species got their features from evolution by natural selection.

1. **The human eye.**
2. **Predators and prey are well adapted to one another.**
3. **The human appendix**
4. **The panda's thumb**
5. **Embryonic gill-slits in terrestrial vertebrates**
6. **Irish Elk antlers**

Abductive Argument against Creationism

Observation: Many species have features suboptimal in current environments, but matching ancestral environments (e.g., Panda's thumb, human appendix, human fetal gill slits).

H-Random: Modern species got their features from a purely random process.

H-Creationism: Modern species got their features directly from an omni-perfect designer.

H-Evolution: Modern species got their features from evolution by natural selection.

Other hypotheses?

Observation: Many species have features suboptimal in current environments, but matching ancestral environments.

H-Creationism: Modern species got their features directly from an omni-perfect designer.

H-Evolution: Modern species got their features from evolution by natural selection.

Old-Earth Creationism: God created the universe itself, but evolution produced modern species.

Tinker-God: Modern species were created by a somewhat lazy and indifferent deity who tinkered with old designs.

Prankster: Modern species were created by a prankster-god who faked all the evidence that evolution occurred.

5-minute-universe: The universe was created 5 minutes ago; our memories and "historical evidence" are all fake.

These hypotheses are all "empirically equivalent" (they predict the same observations).

Hence, the surprise principle can't help choose between them.

Are some more plausible than others? Why?

H-Evolution: Modern species got their features from evolution by natural selection.

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