

LECTURE 1

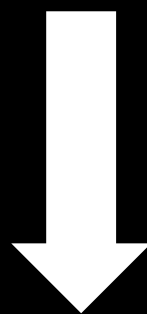
What Is This Controversy About?



By Dr. Jonathan Wells



will **NOT** try to **RESOLVE**
the **CONTROVERSY**



provide a **SKETCH** of the
major **ISSUES.**

We **1st** need to **ASK**
what we **MEAN**
by “**SCIENCE**” and “**FAITH**”





SCIENCE

can mean different things

SCIENCE = scientific
CONSENSUS?

scientific
CONSENSUS = **MAJORITY** *opinion*
of professional scientists.

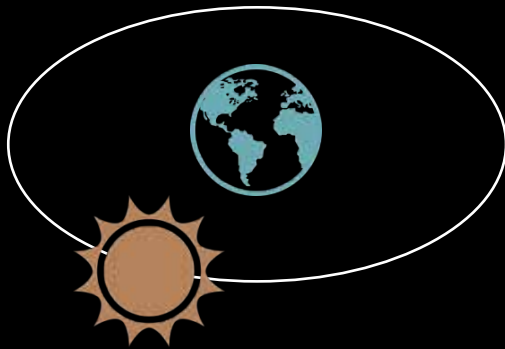
how **RELIABLE**
is the scientific
CONSENSUS?



Scientific **CONSENSUS**

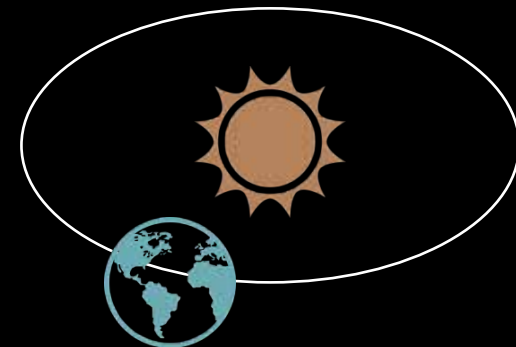
1.500

EARTHcentric



1.700

HELIOcentric





Scientific **CONSENSUS**

1.700

burn by giving off
PHLOGISTON



1.800

burn by combining with
OXYGEN





Scientific **CONSENSUS**

1.800

SPONTANEOUS
generation of life



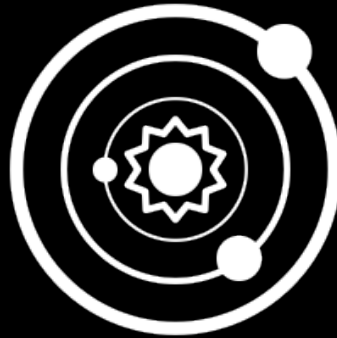
1.900

Generation of life from
LIVING THINGS





Scientific **CONSENSUS**



ATOMS = mini SOLAR SYSTEMS



Scientific **CONSENSUS**



~~ATOMS – mini SOLAR SYSTEMS~~

1.900



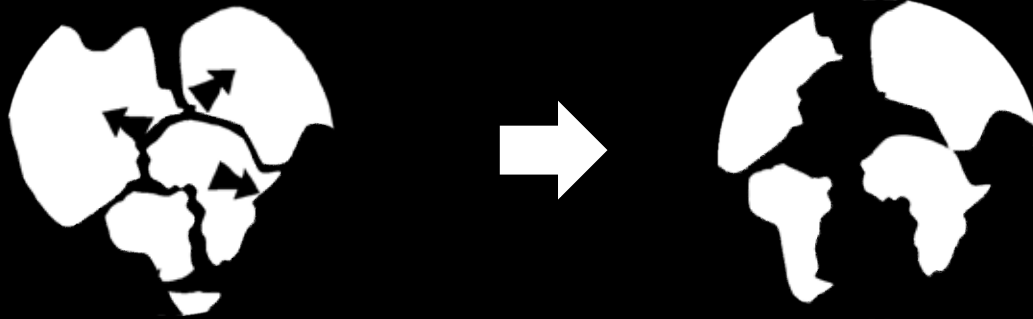
Scientific **CONSENSUS**



FIXED CONTINENTS



Scientific **CONSENSUS**



~~FIXED CONTINENTS~~

1.960



Scientific **CONSENSUS**



JUNK DNA



Scientific **CONSENSUS**



~~JUNK DNA~~

2.012

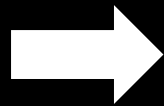


Scientific **CONSENSUS**
is **NOT RELIABLE**



SCIENCE

SCIENCE = knowledge & techniques
MODERN TECHNOLOGY
and **MEDICINE?**





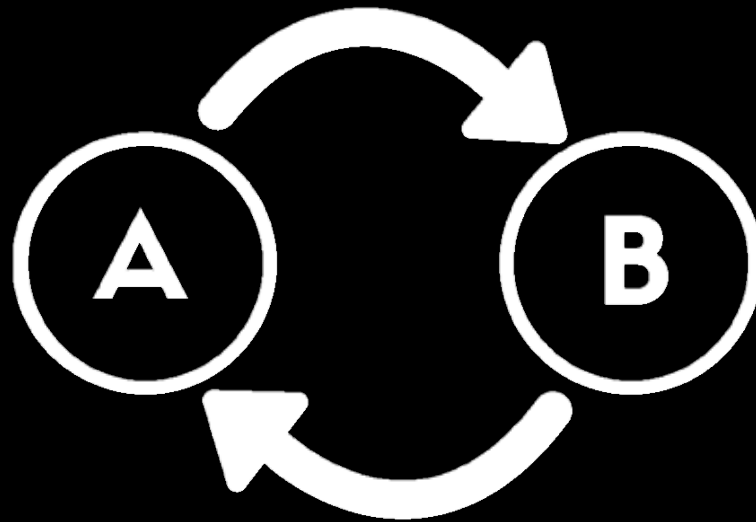
But how do scientists
get their
KNOWLEDGE?



how does
science
WORK?



how does science **WORK?**



ASSUME
Cause &
Effect in
nature



how does science **WORK?**

1.OBSERVE

CAUSAL relations





how does science **WORK?**

2. FORM HYPOTHESIS

LOGICAL relations

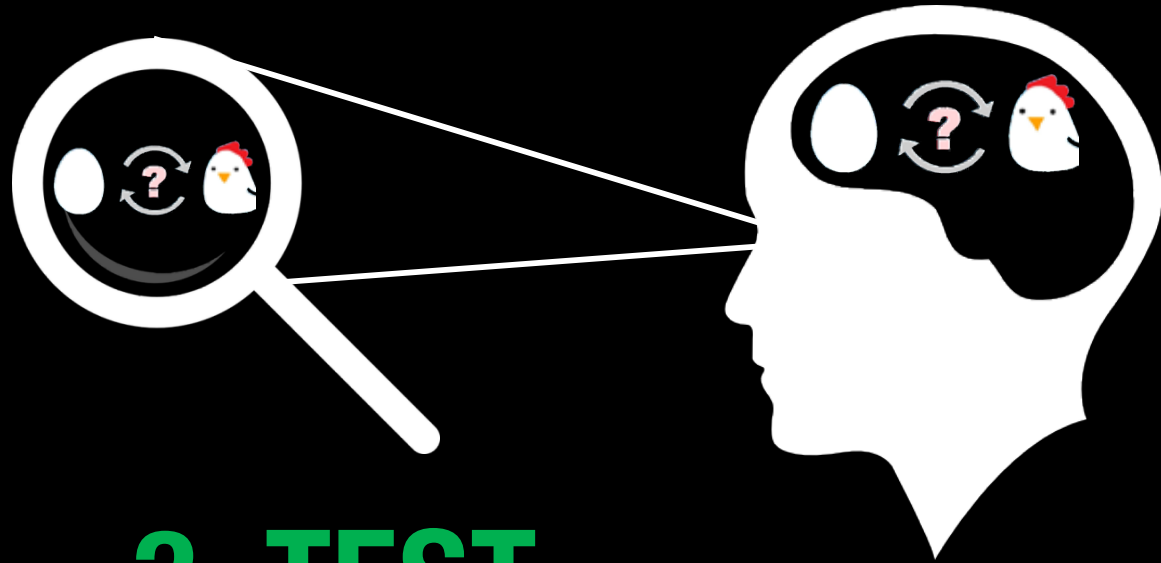


CAUSAL relations





how does science **WORK?**



3. TEST
COMPARE
HYPOTHESIS vs NATURE



how does science **WORK?**

1. OBSERVE





how does science **WORK?**



Linus Pauling

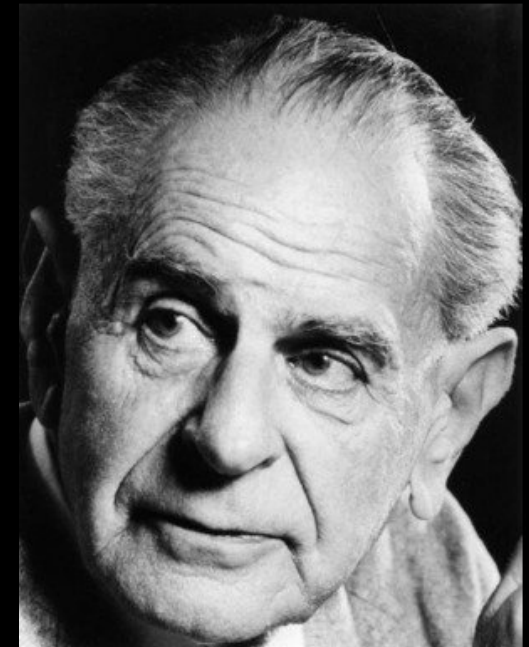
Nobel Laureate (Chemistry & Peace)

“Science is the **SEARCH**
for the **TRUTH.**”



how does science **WORK?**

“ The actual
PROCEDURE
of science
is to operate with
CONJECTURES ”



Karl Popper

Philosopher of Science



how does science **WORK?**

“

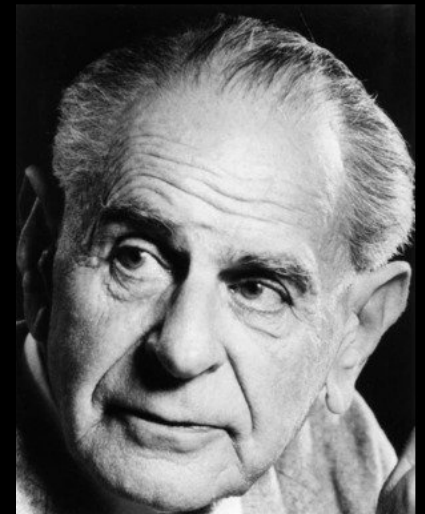
REPEATED

OBSERVATIONS
and
EXPERIMENTS

function in science as

TESTS

of our
conjectures
or
hypotheses



Karl Popper

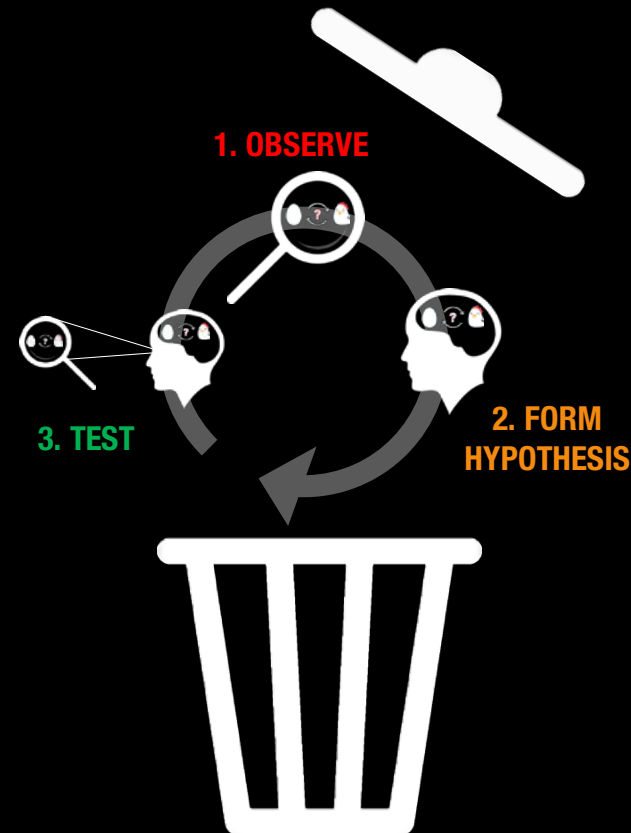
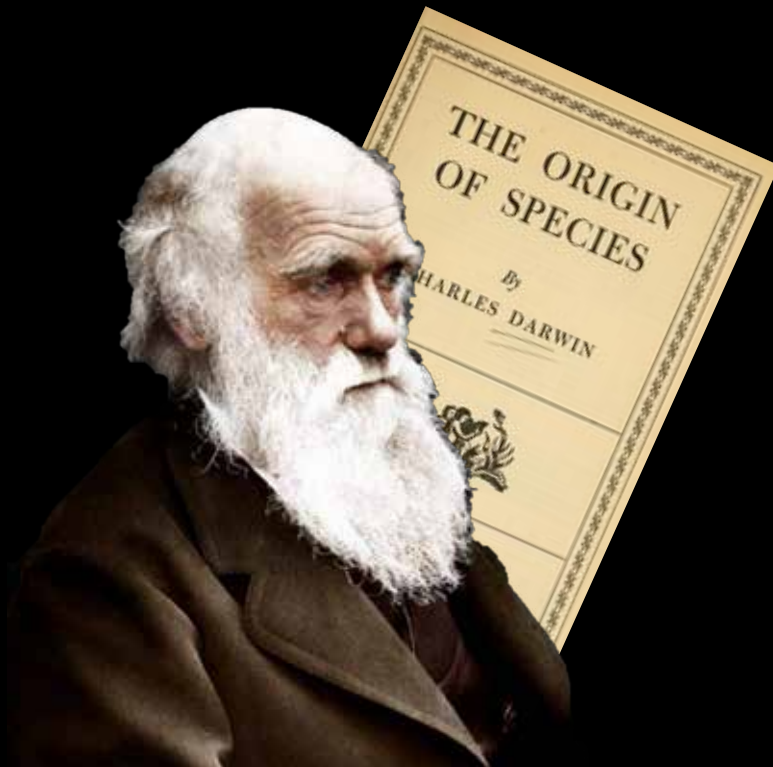
Philosopher of Science

that is, as attempted **REFUTATIONS**

”



Definition of Science **SHIFTED**



BUT ever since **Charles Darwin's *Origin of Species*** (1859)

ANOTHER KIND of **science??** has become

INCREASINGLY COMMON



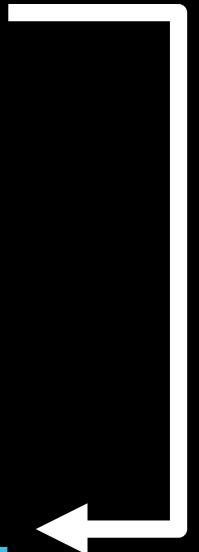
Definition of Science **SHIFTED**

1. TRADITIONAL scientists: before Darwin

SCIENCE = **SEARCH** for **TRUTH**

2. many MODERN scientists: since Darwin

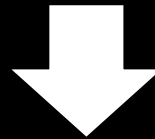
SCIENCE = **SEARCH** for **NATURAL EXPLANATIONS**





Definition of Science **SHIFTED**

SCIENCE = **SEARCH** for **NATURAL**
EXPLANATIONS



explaining **EVERYTHING**

in **TERMS** of

MATERIAL objects



the **FORCES** among them.



Definition of Science **SHIFTED**

METHODOLOGICAL NATURALISM

science is **LIMITED**
to **NATURAL** explanations

are the **ONLY**
ones we can **TEST**

METAPHYSICAL NATURALISM

REALITY =
MATERIAL objects
+
the **FORCES** among them.



Definition of Science **SHIFTED**

METHODOLOGICAL
NATURALISM

=

METAPHYSICAL
NATURALISM

...but **MOST** scientists **BELIEVE**



that if they **SEARCH** LONG ENOUGH



they will
eventually

FIND

NATURAL
EXPLANATIONS

for

EVERYTHING



Definition of Science **SHIFTED**

METHODOLOGICAL
NATURALISM

=

METAPHYSICAL
NATURALISM

- MIND
- SPIRIT
- FREE WILL
- GOD



are **MERELY**
ILLUSIONS



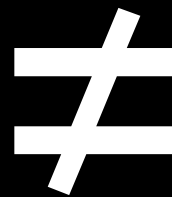
Definition of Science **SHIFTED**

METHODOLOGICAL
NATURALISM



METAPHYSICAL
NATURALISM

EMPIRICAL
SCIENCE



NATURALISTIC
SCIENCE



Definition of Science **SHIFTED**



Richard Lewontin

Harvard biologist

“... we are **FORCED**
by our **A PRIORI** adherence
TO MATERIAL CAUSES
to **CREATE**
an apparatus of investigation
and a set of concepts
that **PRODUCE**
MATERIAL EXPLANATIONS...”



Definition of Science **SHIFTED**



Richard Lewontin

Harvard biologist

“...no matter
HOW COUNTER-INTUITIVE,
no matter
HOW MYSTIFYING to the uninitiated.

Moreover, that **MATERIALISM**
IS ABSOLUTE,
for **WE CANNOT ALLOW**
a **DIVINE FOOT** in the **DOOR.**”



FAITH

For some:

FAITH = belief in things with
NO EVIDENCE

You could say:

FAITH = belief that **EVERYTHING** has a
NATURAL EXPLANATION



FAITH

According to the **BIBLE**:

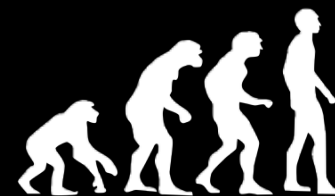
Hebrew 11:1

FAITH = “...**SUBSTANCE** of things hoped for
the **EVIDENCE** of things not seen”

To **UNDERSTAND**
the controversy



LOOK





CREATION

BELIEF that: **GOD**



CREATED

THE UNIVERSE

including all things

seen and **unseen.**



CREATION

YOUNG EARTH

CREATION

6 DAYS

of

24 HOURS

OLD EARTH

CREATION

LONG

periods of

time



CREATION

FINISHED
at beginning

INTERMITTENTLY
or continuously to the present



CREATION

NATURAL THEOLOGY

KNOW
some
things of **GOD**

WITHOUT
BIBLICAL REVELATION



CREATION

NATURAL THEOLOGY

“For the **INVISIBLE THINGS** of him
from the creation of the world are
CLEARLY SEEN,
BEING UNDERSTOOD
by the things
THAT ARE MADE,
even his eternal power and Godhead.”
Romans 1:20



CREATION

NATURAL THEOLOGY

NATURAL
THEOLOGY = **KNOWLEDGE** of **GOD**
through natural reason



CREATION

NATURAL THEOLOGY

“

There is a
**TWOFOLD MODE
OF TRUTH**

”

in what we profess about God.

St. Thomas Aquinas
Summa Contra Gentiles 1:3:2



CREATION

NATURAL THEOLOGY

1

“

Some truths about God **EXCEED** all the
ability of the **HUMAN REASON**.

Such is the truth that God is triune. ”

St. Thomas Aquinas
Summa Contra Gentiles 1:3:2



CREATION

NATURAL THEOLOGY

2

“

But there are some truths which the **NATURAL REASON** also is **ABLE TO REACH**.

Such are that God exists, that He is one, and the like. In fact, such truths about God have **BEEN PROVED DEMONSTRATIVELY** by the philosophers, guided by the light of natural reason

”



CREATION

NATURAL THEOLOGY

**NATURAL
THEOLOGY** = **KNOWLEDGE of GOD**
through observing
natural world

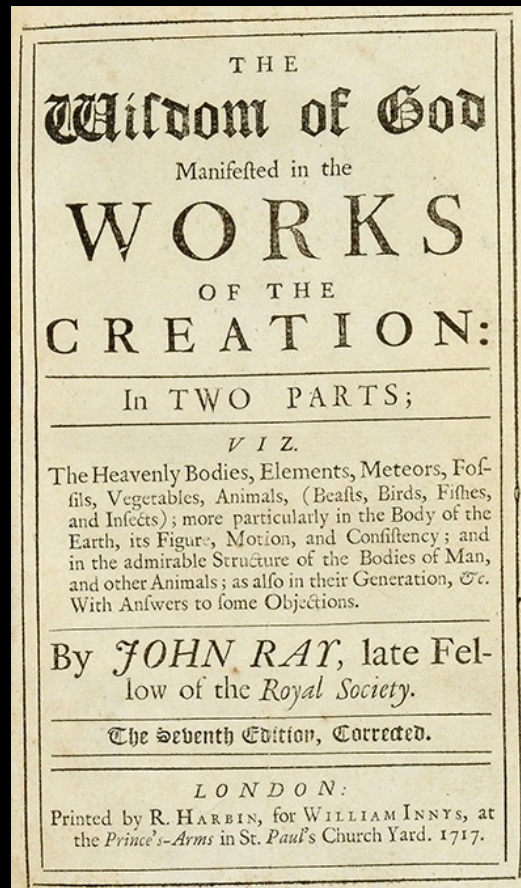


CREATION

NATURAL THEOLOGY

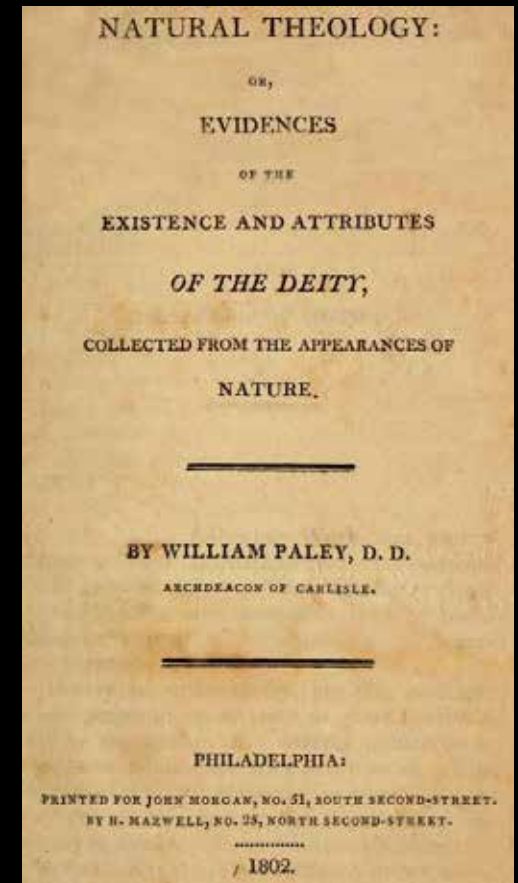
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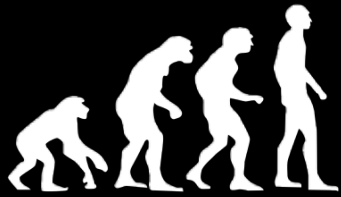
John
Ray
(1691)



2

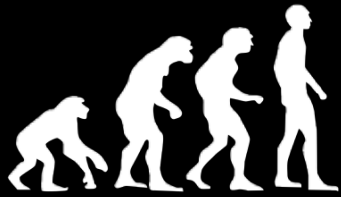
William
Paley
(1802)





EVOLUTION
can mean different things

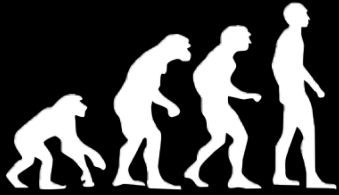
CHANGE
OVER
TIME



EVOLUTION

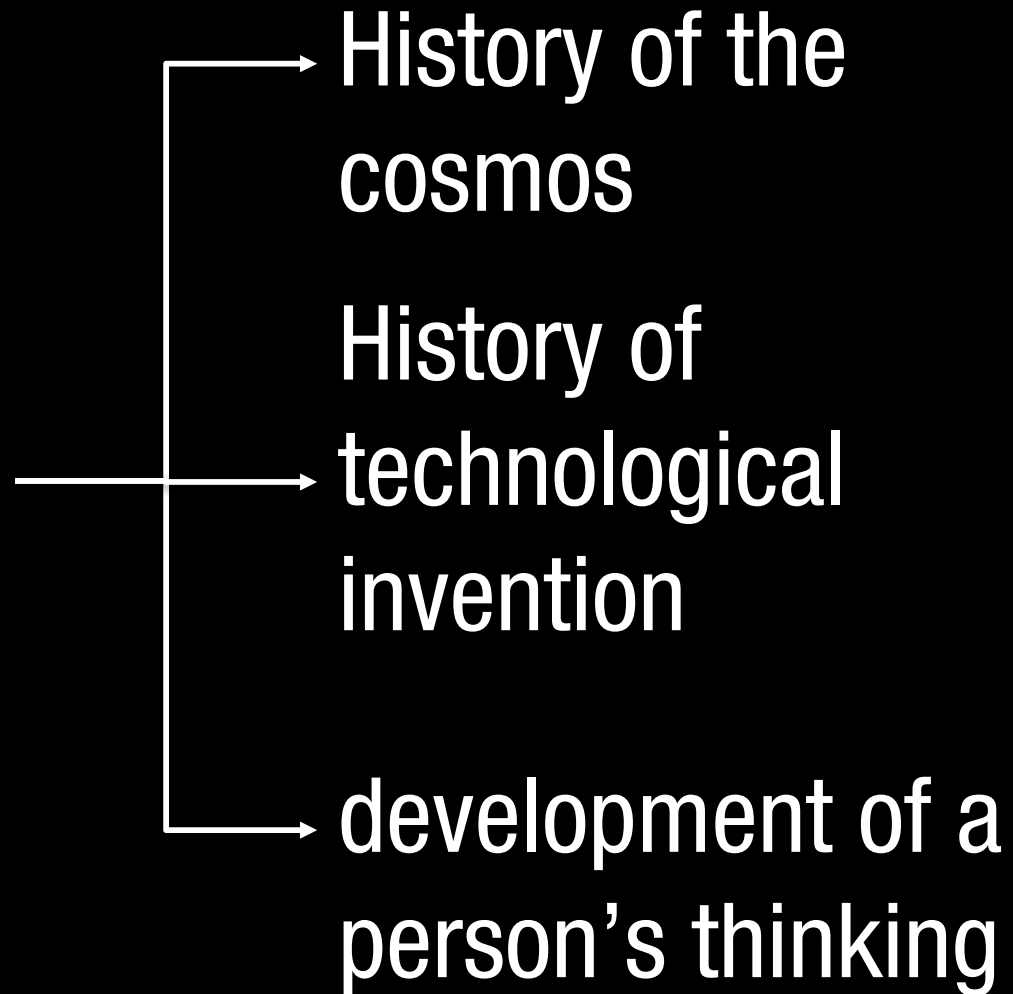
**CUMULATIVE CHANGE
OVER TIME**

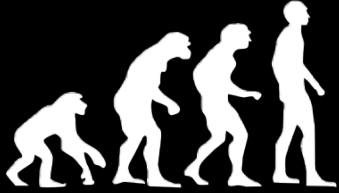
LATER stages build upon
EARLIER ones.



EVOLUTION

EVOLUTION

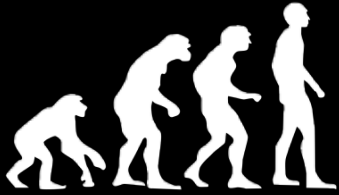




EVOLUTION

MINOR changes **WITHIN**
existing species.

BIOLOGICAL
EVOLUTION

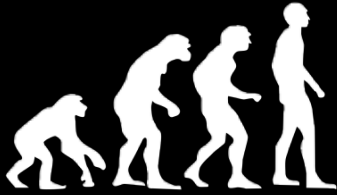


EVOLUTION

BIOLOGICAL EVOLUTION

MINOR changes **WITHIN**
existing species.

present living things \neq things that lived
in the **past**



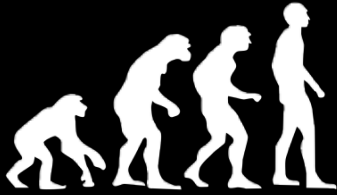
EVOLUTION

BIOLOGICAL EVOLUTION

MINOR changes **WITHIN**
existing species.

present living things \neq things lived
in the **past**

descent with
modification $=$ **TRANSFORMISM**
 $=$ **TRANSMUTATION**



EVOLUTION

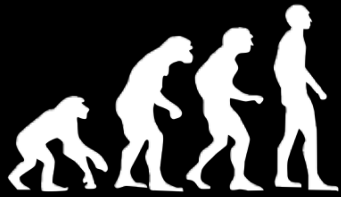
BIOLOGICAL EVOLUTION

MINOR changes **WITHIN**
existing species.

present living things \neq things lived
in the **past**

descent with
modification $=$ **TRANSFORMISM**
TRANSMUTATION

universal COMMON ancestry

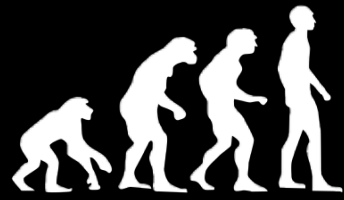


EVOLUTION

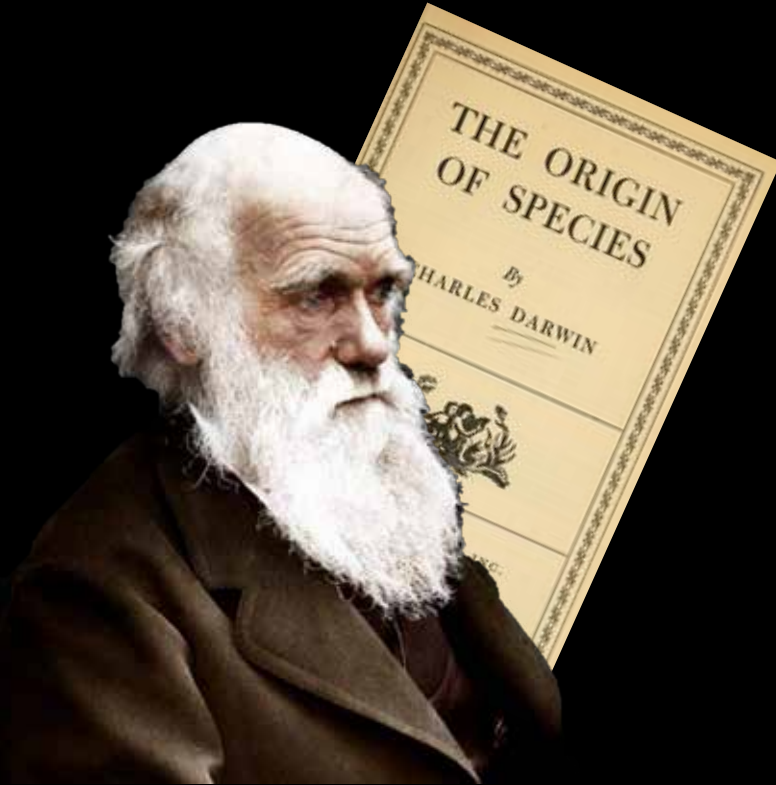
**BIOLOGICAL
EVOLUTION**

=

DARWIN'S THEORY
descent with modification
solely by
**UNGUIDED NATURAL
PROCESSES**



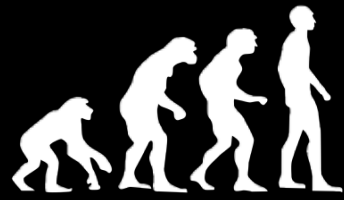
EVOLUTION DARWINISM



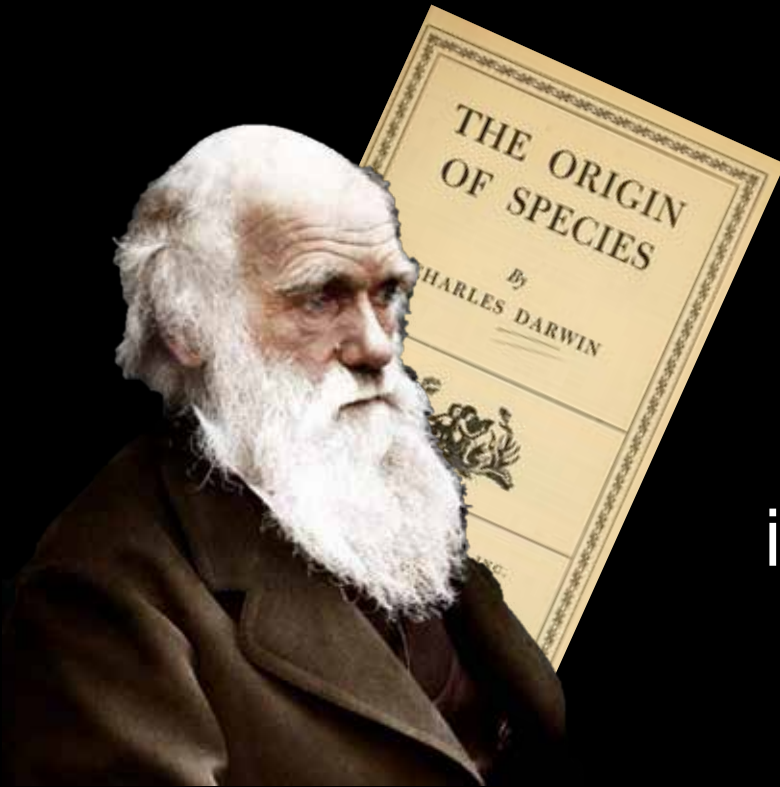
Charles Darwin

Origin of Species (1859)

all living things are
MODIFIED DESCENDANTS
of one or a few **COMMON**
ANCESTORS that lived **LONG AGO**.
The **MAIN CAUSE** of modification has
been **NATURAL SELECTION**
(survival of the fittest) acting on
SMALL VARIATIONS.



EVOLUTION DARWINISM



Charles Darwin

THE PROCESS IS UNGUIDED

“There seems to be
NO MORE DESIGN

in the variability of organic beings, and
in the action of natural selection,
**THAN IN THE COURSE WHICH THE
WIND BLOWS.”**



EVOLUTION DARWINISM

Darwin actually had no evidence for natural selection, and he did not know the origin of variations, but his exclusion of design fit the spirit of the times. Historian Neal Gillespie wrote, “It is sometimes said that Darwin converted the scientific world to evolution by showing them the process by which it had occurred

**BUT IT WAS MORE DARWIN'S
INSISTENCE ON TOTALLY NATURAL EXPLANATIONS
THAN ON NATURAL SELECTION
THAT WON THEIR ADHERENCE.”**

Neal C. Gillespie

Charles Darwin and the Problem of
Creation (1979)

THEN, what is
CONTROVERSY about?



**CHRISTIAN
FAITH**

CONFLICT

**NATURALISTIC
SCIENCE**

Are we **CREATED**
in the image of God
for a purpose?

Are we **ACCIDENTAL**
by-products of unguided
natural processes?



WARFARE THESIS

Before Darwin:

CHRISTIANITY

got along
quite
well with

SCIENCE

FOUNDERS
of most modern
science
disciplines

- **BIOLOGY**
- **CHEMISTRY**
- **PHYSICS**



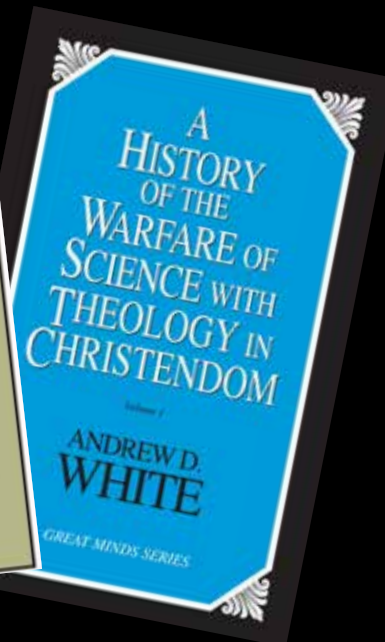
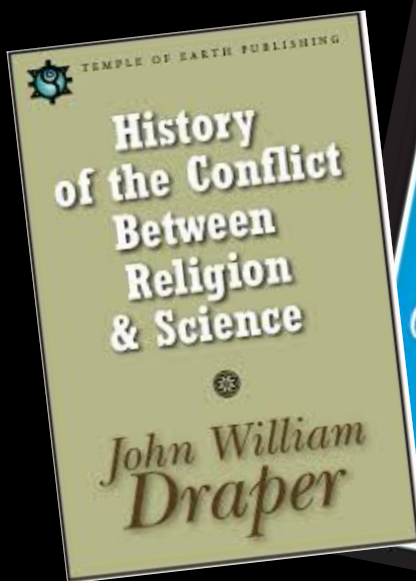
WARFARE THESIS

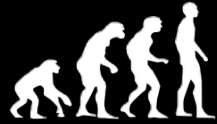
RELIGION

has
ALWAYS
been at
WAR

SCIENCE

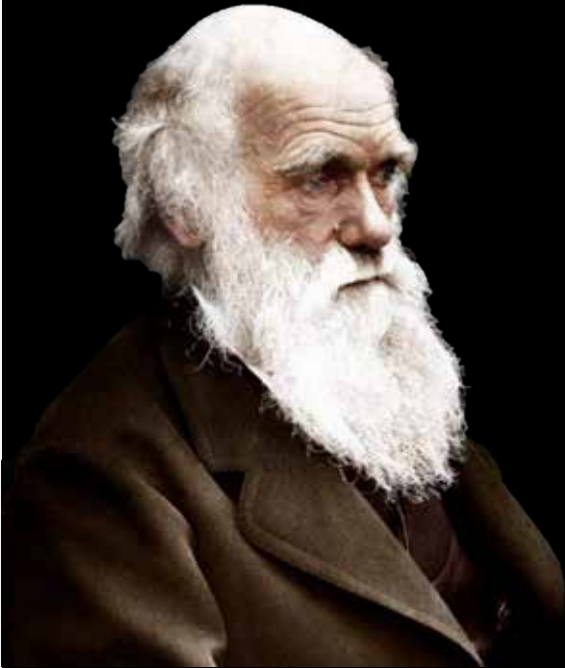
PROMOTED
WARFARE





DARWINISM

Darwin's theory of **INHERITANCE**.



Charles Darwin

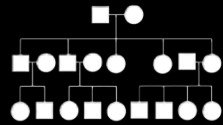
The Variation of Animals and Plants
Under Domestication (1868)

TRAITS from body parts = **“PANGENES”**

BLENDED in the **GERM CELLS** (sperm)

to be **TRANSMITTED** to the **NEXT GENERATION**

“PANGENESIS”



MENDELISM



Gregor Mendel

Augustinian friar and botanist
(1865)

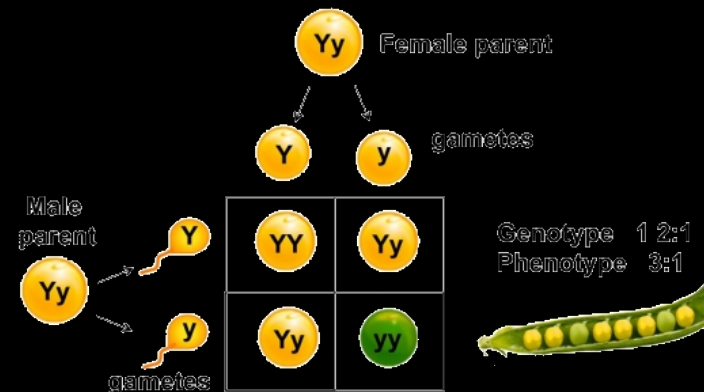
Alternative **THEORY** of **INHERITANCE**

IGNORED for decades by Darwin's followers

FACTORS
for **TRAITS**

=

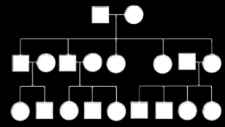
DISCRETE and
inherited **SEPARATELY**



FACTORS
for **TRAITS**

≠

BLENDED together



MENDELISM

William Bateson



1905

STUDY of
INHERITANCE = **GENETICS**

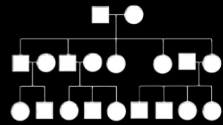
Wilhelm Johannsen



1909

PHENOTYPE ↔ **GENOTYPE**

PANGENE → **GENE**



MENDELISM

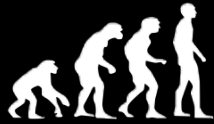
William Bateson



Wilhelm Johannsen



HEREDITARY FACTORS (genes)
are **IMMATERIAL.**

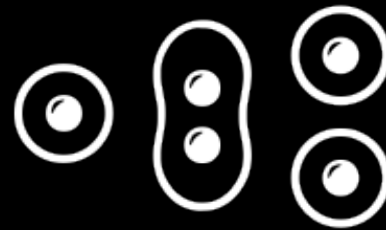


NEO DARWINISM

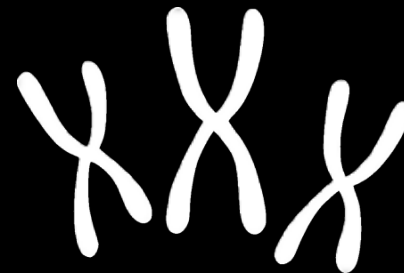


Theodor Boveri

In the cell **DIVISIONS**
that **PRODUCE** the sperm - egg

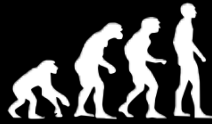


follow **SAME** Mendel's **PATTERNS**



Walter Sutton

the **BEHAVIOR** of **CHROMOSOMES**



NEO DARWINISM



**Thomas Hunt
Morgan**

THE CHROMOSOMAL THEORY OF INHERITANCE

Mendel's factors

RESIDE PHYSICALLY ON
chromosomes

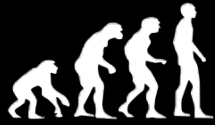
CHAMPIONED

**DARWIN'S
THEORY**

+

**CHROMOSOMAL
THEORY OF
INHERITANCE**

**MODERN SYNTHESIS
OR NEO-DARWINISM**



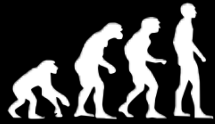
NEO DARWINISM

POPULATION
GENETICS

MATHEMATICALLY MODELED
CHANGES in FREQUENCIES
of **GENES**
over **SPACE** and **TIME**

EVOLUTION = CHANGE in GENE
SIMPLIFICATION FREQUENCIES

this doesn't tell us **HOW NEW SPECIES ORIGINATE!**



NEO DARWINISM

1953

SOLVED the molecular structure of **DNA**

EXPLAINED how it could be **DUPLICATED**
in **INHERITANCE**.

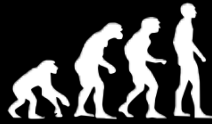


James Watson



Francis Crick

“We have **DISCOVERED**
the **SECRET** of **LIFE**”



NEO DARWINISM

1958



James Watson



Francis Crick

SEQUENCE of subunits in **DNA**

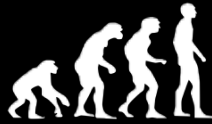
specifies

SEQUENCE of **RNA**

specifies

AMINO ACID sequence of a **PROTEIN**

1962 awarded the Nobel Prize for their achievement



NEO DARWINISM

1965

RECEIVED the NOBEL PRIZE

Discovered a **MECHANISM** bacteria use



François Jacob

DNA **TRANSCRIPTION** **RNA**

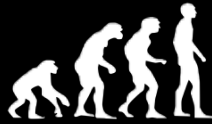
1970

DNA = **GENETIC PROGRAM**
controls embryo development



Jacques Monod

DNA **MAKES** **RNA** **MAKES** **PROTEIN** **MAKES** **US**



NEO DARWINISM



François Jacob

**GENETIC
PROGRAM**

+

**RANDOM
MUTATION**

=

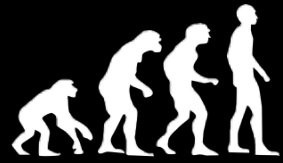
**MECHANISM
OF DARWINISM**



Jacques Monod

“the mechanism of Darwinism is at
last **SECURELY FOUNDED**”

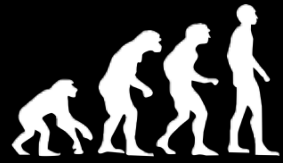
“man has to understand that he
is a **MERE ACCIDENT**”



NEO DARWINISM

S U M M A R Y

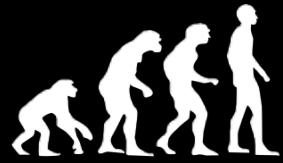
ALL living things are
DESCENDED
from one or a few
COMMON ANCESTORS.



NEO DARWINISM

S U M M A R Y

All features of living things are
**DUE TO UNGUIDED
NATURAL PROCESSES**
such as **RANDOM VARIATION** and
NATURAL SELECTION.



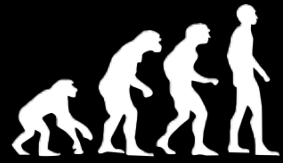
NEO DARWINISM

S U M M A R Y

GENES

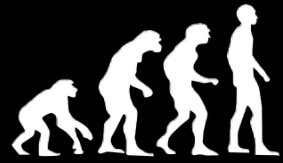
understood materially as DNA sequences

carry all **HEREDITARY**
INFORMATION and
CONTROL EMBRYO
DEVELOPMENT.



NEO DARWINISM SUMMARY

ACCIDENTAL MUTATIONS
in **DNA** are the **SOURCE**
of the **NEW VARIATIONS** that
provide the **RAW MATERIALS**
for evolution.



NEO DARWINISM SUMMARY

Although living things
MAY APPEAR to be
DESIGNED,
this is just an
ILLUSION.



INTELLIGENT DESIGN (ID)

IDEA OF **DESIGN** is **ANCIENT**

1980s -1990s

MODERN SCIENTISTS & PHILOSOPHERS
REVIVED the idea of **DESIGN** as **INTELLIGENT**
D E S I G N



INTELLIGENT DESIGN (ID)

INTELLIGENT
D E S I G N

INFER from **NATURE**

SOME THINGS

are **BEST EXPLAINED**

by an **INTELLIGENT CAUSE**
not by undirected natural processes



INTELLIGENT DESIGN (ID)

designed \neq perfection

Intelligent design \neq creationism

Intelligent design **BASED ON** evidence + logic

Intelligent design \neq natural theology



INTELLIGENT DESIGN (ID)



Scientists



Philosophers

have recently
proposed several
WAYS to



**INFER
DESIGN**



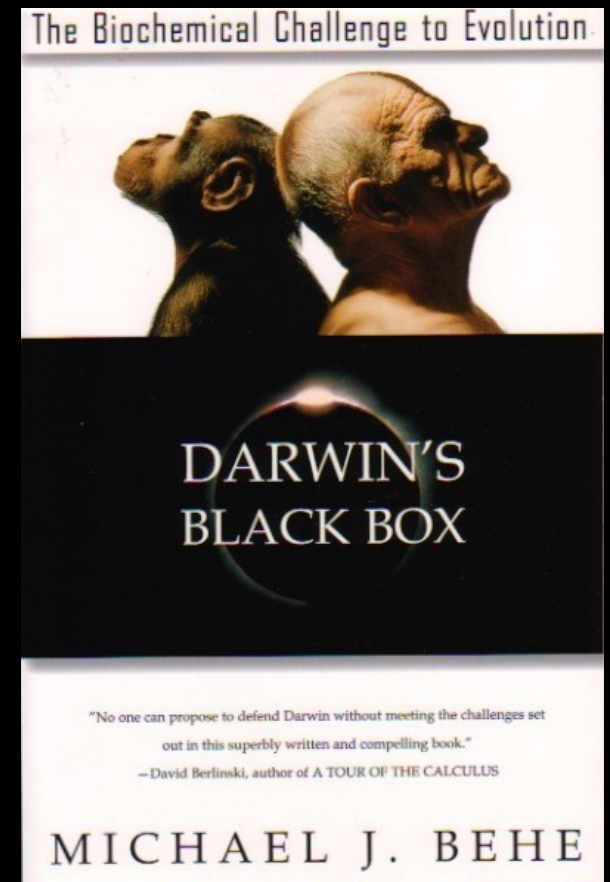
INTELLIGENT DESIGN (ID)



1. Irreducible Complexity



Michael Behe
Ph.D., Biochemistry





INTELLIGENT DESIGN (ID)



1. Irreducible Complexity

“By **irreducibly complex** I mean a **SINGLE** system compose 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**.”

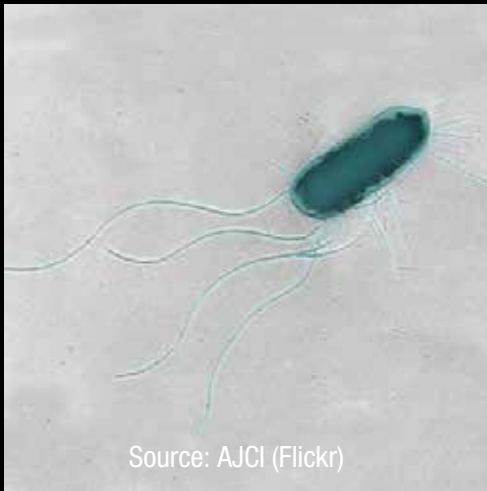
Michael Behe, Darwin's Black Box (1996)



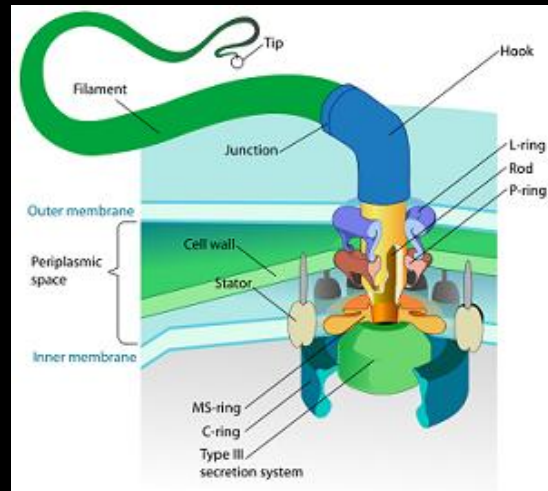
INTELLIGENT DESIGN (ID)



1. Irreducible Complexity



Source: AJCI (Flickr)



The **BACTERIAL
FLAGELLUM
MOTOR**
Is
**IRREDUCIBLY
COMPLEX.**



INTELLIGENT DESIGN (ID)



1. Irreducible Complexity

“Design is **evident** when
a number of **separate, interacting** parts are
ordered in such a way as to
accomplish a **function**
BEYOND THE INDIVIDUAL COMPONENTS.”

Michael Behe, Darwin's Black Box (1996)



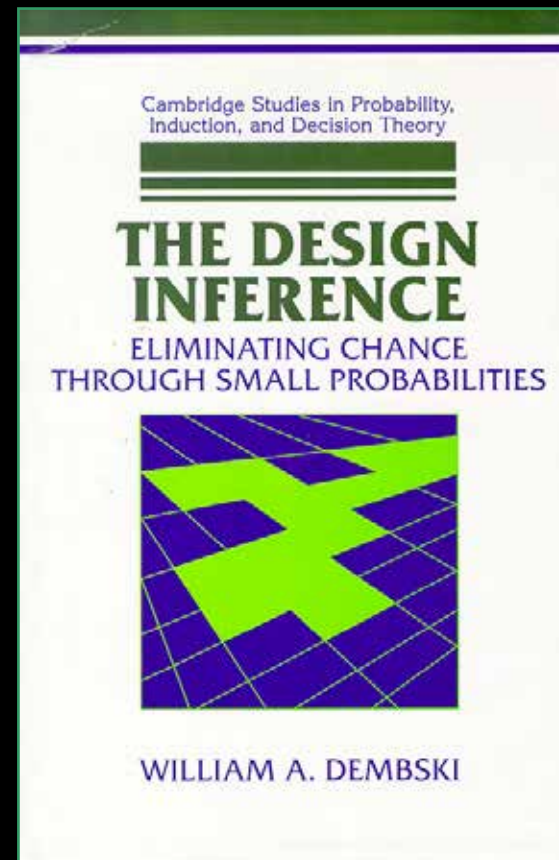
INTELLIGENT DESIGN (ID)



2. Specified Complexity



William Dembski
Ph.D., Mathematics
Ph.D., Philosophy





INTELLIGENT DESIGN (ID)



2. Specified Complexity

- 1 **NOT COMPLEX** (simple repetition of “wlt”):
Wltwltwltwltwltwltwltwltwltwltwltwltwlt.



INTELLIGENT DESIGN (ID)



2. Specified Complexity

- 1 **NOT COMPLEX** (simple repetition of “wlt”):

Wltwltwltwltwltwltwltwltwltwlt.

- 2 **COMPLEX BUT NOT SPECIFIED** (does not correspond to an independent pattern):

Wdlmnl dt jbkwirzrezlmaqco p.



INTELLIGENT DESIGN (ID)



2. Specified Complexity

- 1 **NOT COMPLEX** (simple repetition of “wlt”):

Wltwltwltwltwltwltwltwltwltwlt.

- 2 **COMPLEX BUT NOT SPECIFIED** (does not correspond to an independent pattern):

Wdlmnl dt jbkwirzrezlmaqco p.

- 3 **COMPLEX AND SPECIFIED** (corresponds to a sentence in “Hamlet”):

Methinks it is like a weasel.



INTELLIGENT DESIGN (ID)



2. Specified Complexity

COMPLEX **specified** information
can be produced **ONLY** by **intelligence**
and justifies an **INFERENCE** to **design**.

William Dembski



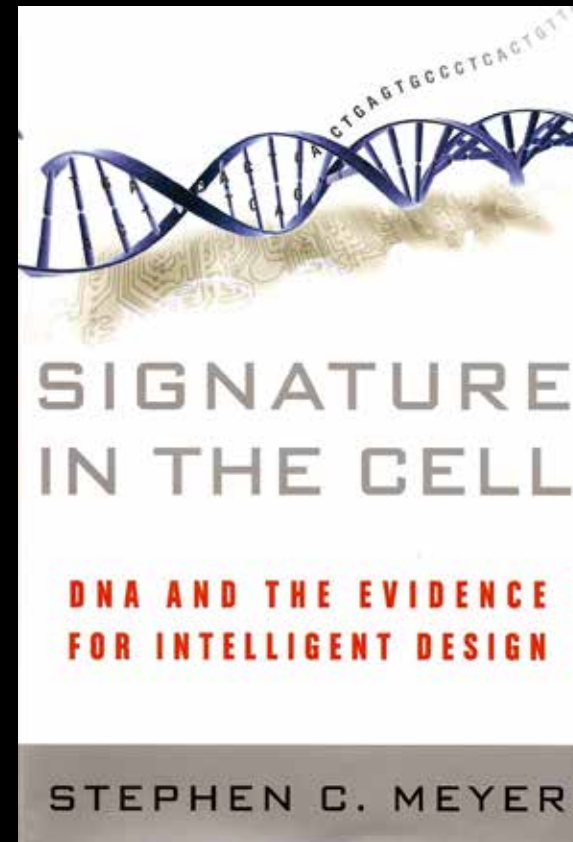
INTELLIGENT DESIGN (ID)



3. Inference to the Best Explanation



Stephen Meyer
Ph.D., Philosophy of Science





INTELLIGENT DESIGN (ID)



3. Inference to the Best Explanation

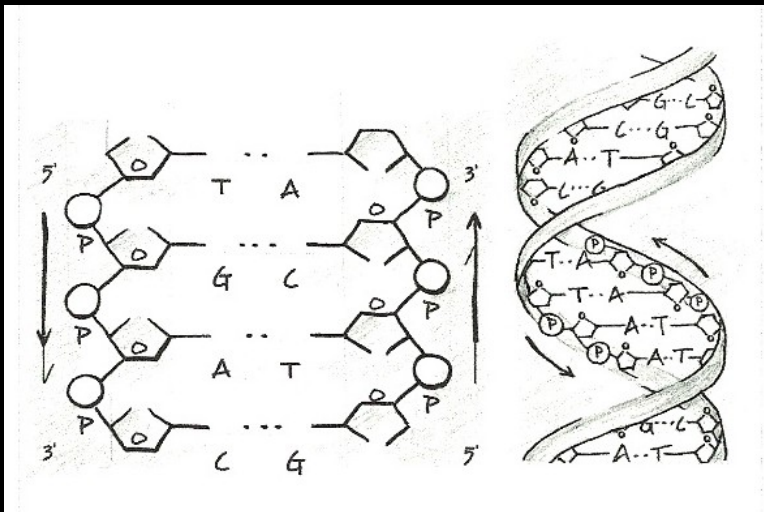


Illustration by Ray Braun © 2009

DNA ▷ **T, A, G, C**
consists of 4 subunits

Human DNA ▷ contains over
3.000.000.000
subunits.



INTELLIGENT DESIGN (ID)



3. Inference to the Best Explanation

“DNA is like a **computer** program
but far, far **MORE advanced**
than any software ever created.”

Bill Gates, The Road Ahead (1995)



INTELLIGENT DESIGN (ID)



3. Inference to the Best Explanation

“Since we know that **intelligent agents** do **produce** large amounts of **information**, and since all known **natural processes DO NOT** (or cannot), we can **infer design** as the **best explanation** of the origin of information in the cell.”

Stephen Meyer, *Signature in the Cell* (2009)



INTELLIGENT DESIGN (ID)

1

Critics

objected

to all 3 approaches

Neo-Darwinism

PROVES that **design** is an

ILLUSION



explainable by

unguided **NATURAL** processes



INTELLIGENT DESIGN (ID)

2

Critics

objected

to all 3 approaches

by referring to a **NON**-human intelligent cause

ID VIOLATES the cardinal rule of (naturalistic) science:

that “materialism is **ABSOLUTE**

for we **CANNOT ALLOW** a **DIVINE FOOT** in the door.”



INTELLIGENT DESIGN (ID)

3

Critics

objected

to all 3 approaches

ID treats living things as though
they were designed from the

OUTSIDE

when they actually
seem to design
themselves from

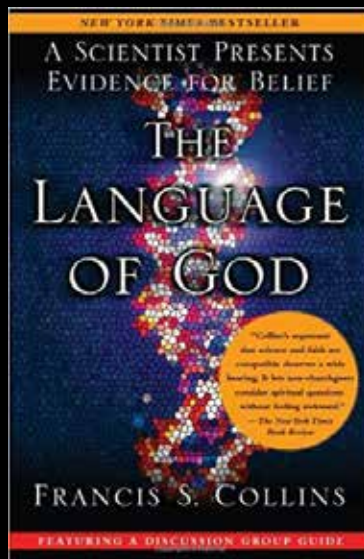
WITHIN



THEISTIC EVOLUTION



Francis Collins
American physician



“THEISTIC EVOLUTION is the dominant position of **serious biologists** who are also **serious believers.**”

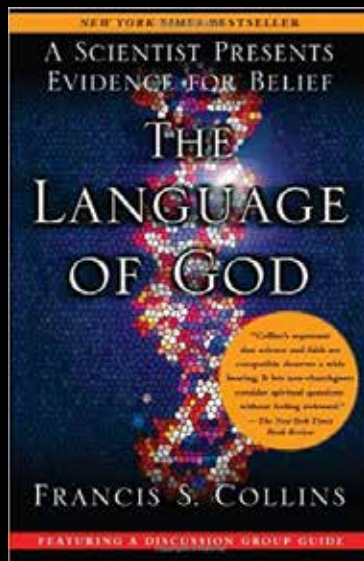
“Once evolution got under way, no special supernatural intervention was required.”



THEISTIC EVOLUTION



Francis Collins
American physician



But Collins found the terminology to be confusing,
so he proposed the term

“BioLogos”

to replace “theistic evolution.”

In 2007, he founded the

BioLogos Foundation

to promote the idea, but he resigned in 2009 to
become director of the U.S. National Institutes of
Health.



THEISTIC EVOLUTION



Karl Giberson



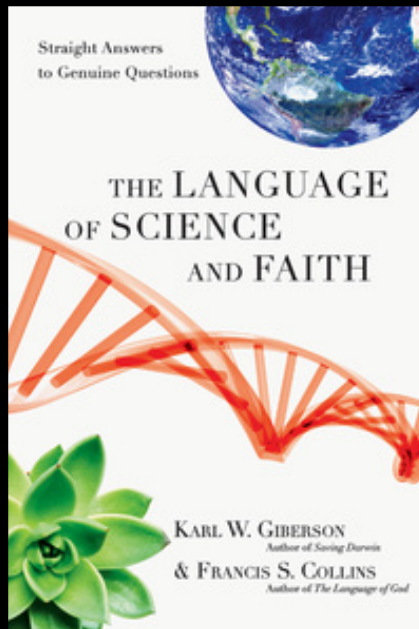
Francis Collins

“The model for divinely guided evolution that we are proposing here

**requires no
‘intrusions from outside**

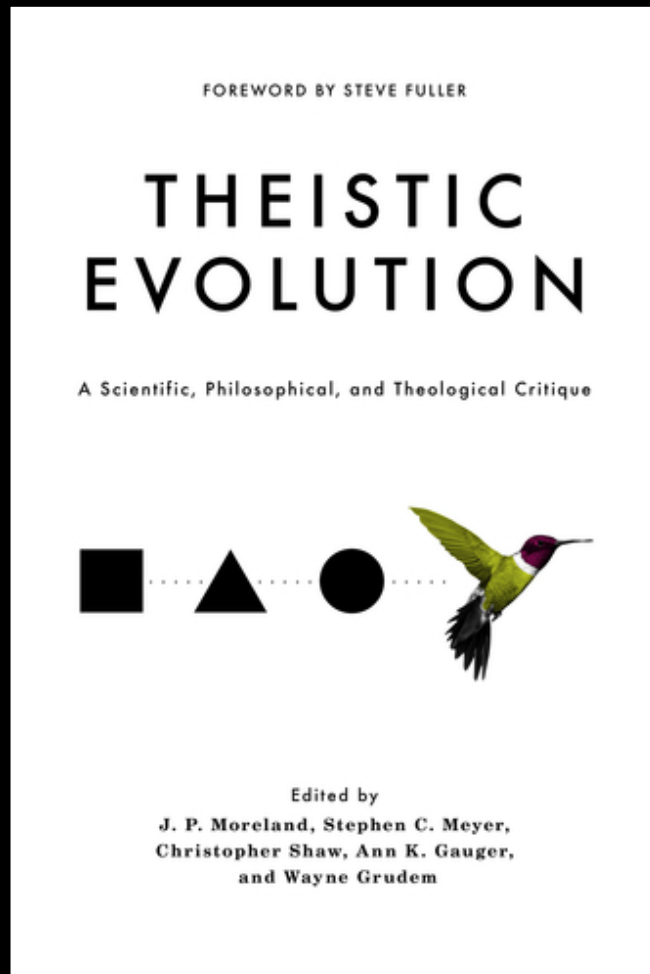
for its account of God’s creative process,
except for

**the origins of the NATURAL LAWS
guiding the process.”**





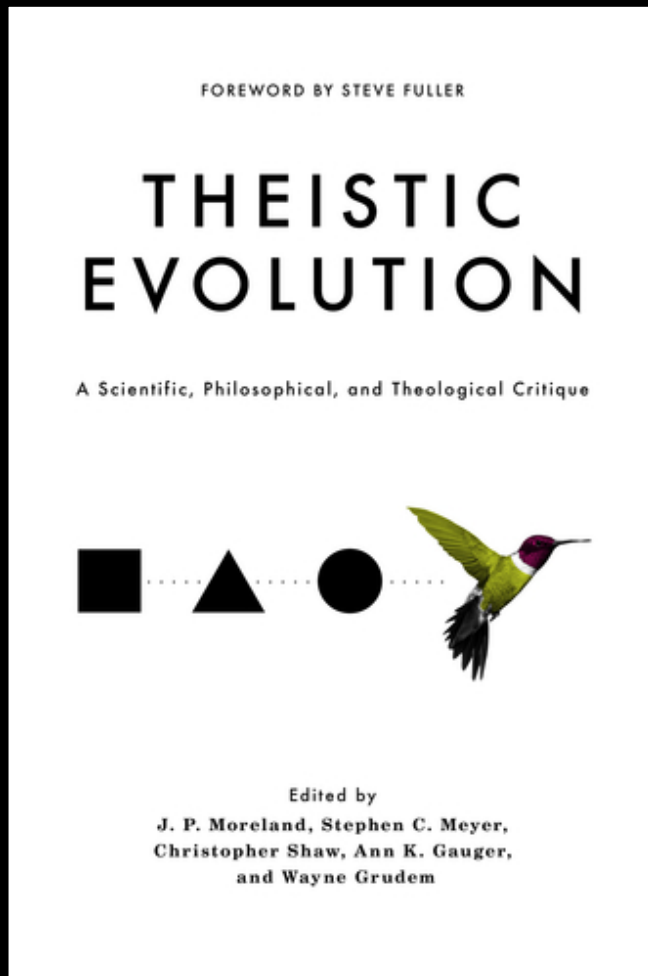
THEISTIC EVOLUTION



In 2017,
two dozen
scientists,
philosophers and
theologians
published a 972-page
**critique of theistic
evolution**



THEISTIC EVOLUTION



Books definition

“God created matter
and after that
**did not guide or intervene
or act directly or cause
any empirically detectable
change in the natural
behavior of matter**
until all living things had evolved
by purely natural processes.”



THEISTIC EVOLUTION

**The BioLogos
Foundation**

“theistic
evolution”



“evolutionary
creation”

“We believe that the diversity and
interrelation of all life on earth are best
explained by the

**GOD-ORDAINED PROCESS OF
EVOLUTION WITH COMMON DESCENT”**



THEISTIC EVOLUTION

The BioLogos
Foundation

“theistic
evolution”



“evolutionary
creation”

People affiliated with BioLogos **reject** the idea
that this process is purposeless,
but they also **reject** the idea that **design**
can be empirically detected.

CONCLUSIONS?

Speakers over the next few days
will address
many of the issues in this controversy

CONCLUSIONS?

list of important **concepts** and some
important **questions** for you to consider

CONCEPTS

- Science
- Faith
- Creation
- Natural Theology
- Evolution
- Darwinism
- Mendelism
- Neo-Darwinism
- Intelligent Design
- Theistic Evolution

QUESTIONS

— Science

- Is science a search for truth by comparing hypotheses with evidence?
- Or is it a search for natural explanations that “cannot let a Divine Foot in the door”?

— Creation

- How should we interpret Genesis?
- Is creation compatible with an exclusion of design?
- Is natural theology possible?

QUESTIONS

— Biological Evolution

- Is it simply minor changes within existing species (microevolution)?
- Or is it the origin of new species, organs, and body plans (macroevolution)?
- Most importantly, is it unguided macroevolution (Darwinism and Neo-Darwinism)?
- What does the evidence show about universal common ancestry? About the power of natural selection and mutations?

QUESTIONS

– Intelligent Design (ID)

- Can we infer design from evidence in nature?
- Is ID science, or is it religion in disguise?

– Theistic Evolution (TE)

- In what sense(s) can theism and evolution be considered compatible?

For more information:

DISCOVERY
INSTITUTE



<https://www.discovery.org/id/>