



<http://www.sciencesfirstmistake.com>

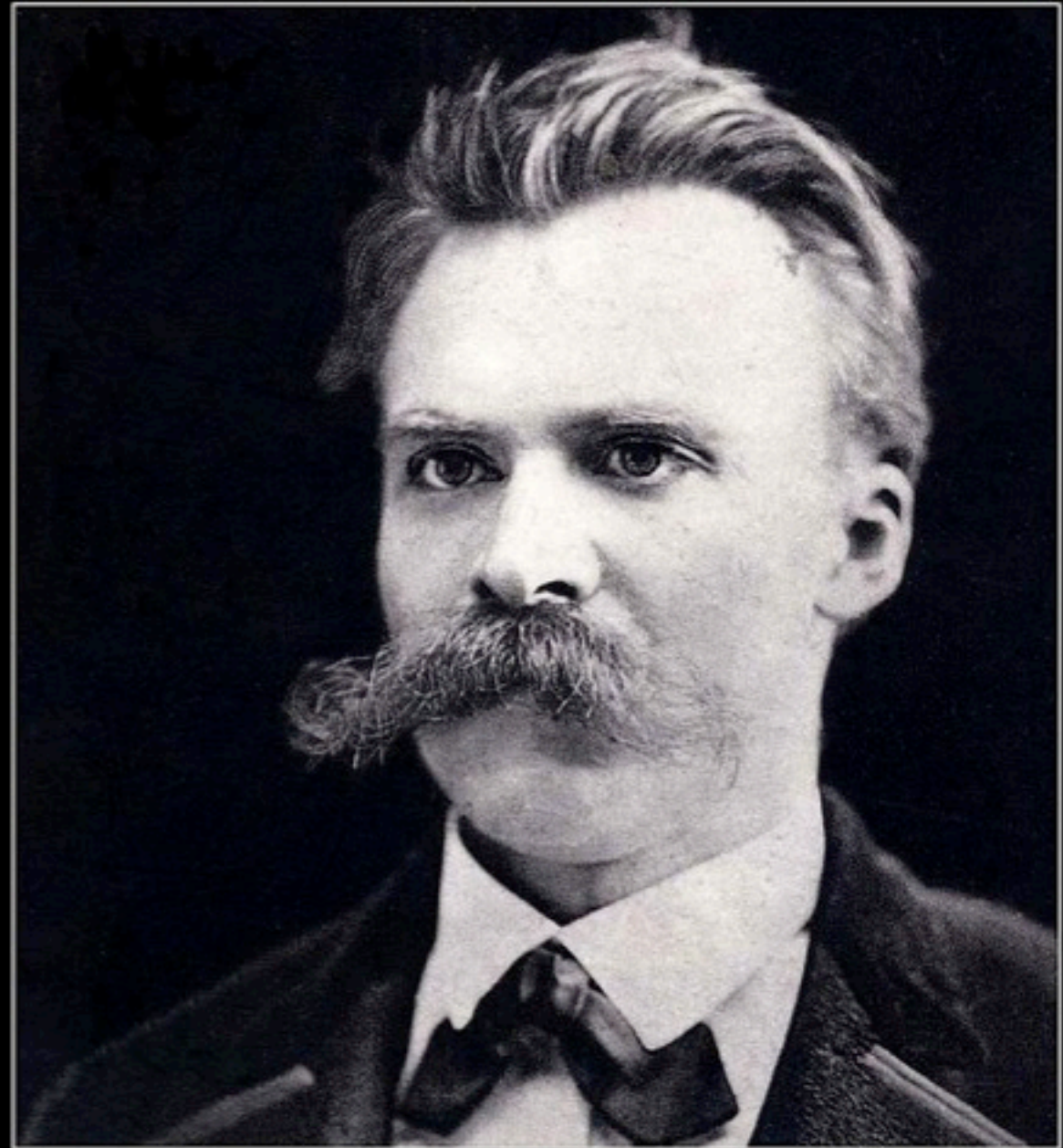
Niklas Luhmann

“The world is observable
because it is unobservable”

“the condition of its possibility
is its impossibility”

Our world is unknowable,
yet variously interpretable

“We call it ‘explanation’,
but it is ‘description’
which distinguishes us
from earlier stages
of knowledge and science.
We describe better –
we explain just as little as
any who came before us”



Friedrich
Nietzsche

Atomism : Science's First Mistake

Niklas Luhmann:

Fallacy of the Residual Category

Tacit Properties;

Latencies

Structural Coupling

We have introduced an asymmetry between
the world as it is and as it is observed.

All observation is conditional,
but those conditions are necessarily unobservable,
unappreciable, uncertain.

abstraction: falsification,
an unnatural description of the natural world

“When observers continue to look for an ultimate reality, a concluding formula, a final identity, they will find the paradox.

Such a paradox is not simply a logical contradiction (A is non-A) but a foundational statement ...

Nothing can be observed (not even the ‘nothing’) without drawing a distinction, but this operation remains indistinguishable”
(Luhmann)

There is no such thing as
Holistic Thinking.

No Why? only How?

A Category is an act of choice,
a prejudged priority

Sameness and Similarity



The Office of Government Commerce is:
“an organization that is looking to have
a firm grip on government spend!”

So that's what
they meant by **“Firm
Grip”**!



All data is
Context Sensitive

“A fact is like a sack.
It won't stand up
until you put
something into it”

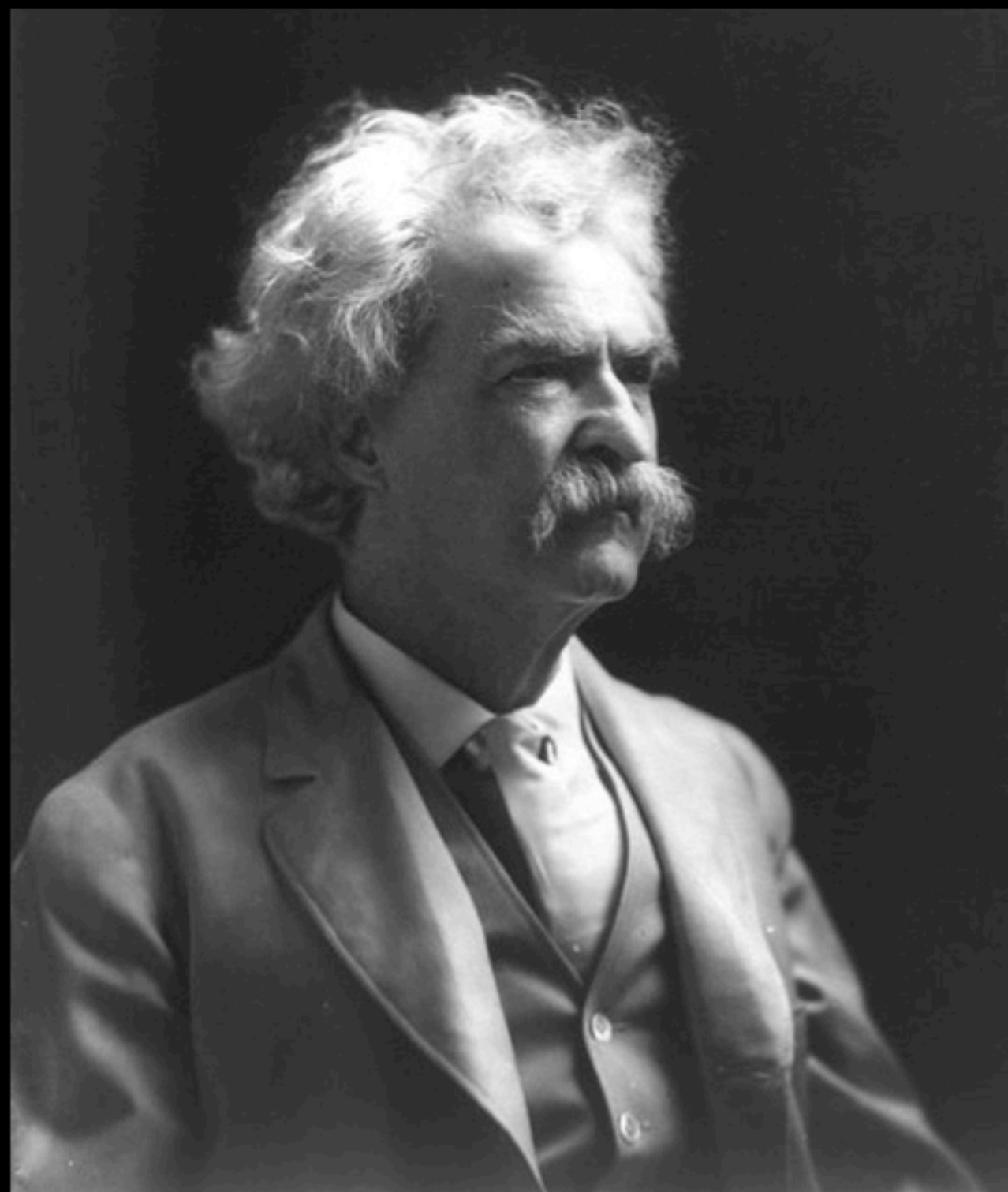


Pirandello

Causality is the self-referential argumentation
we use to convince ourselves.

Causality is the basis of questioning;
but one that itself cannot be questioned.

There can be no solutions,
only temporary patches
- CONTINGENCIES -



Mark Twain

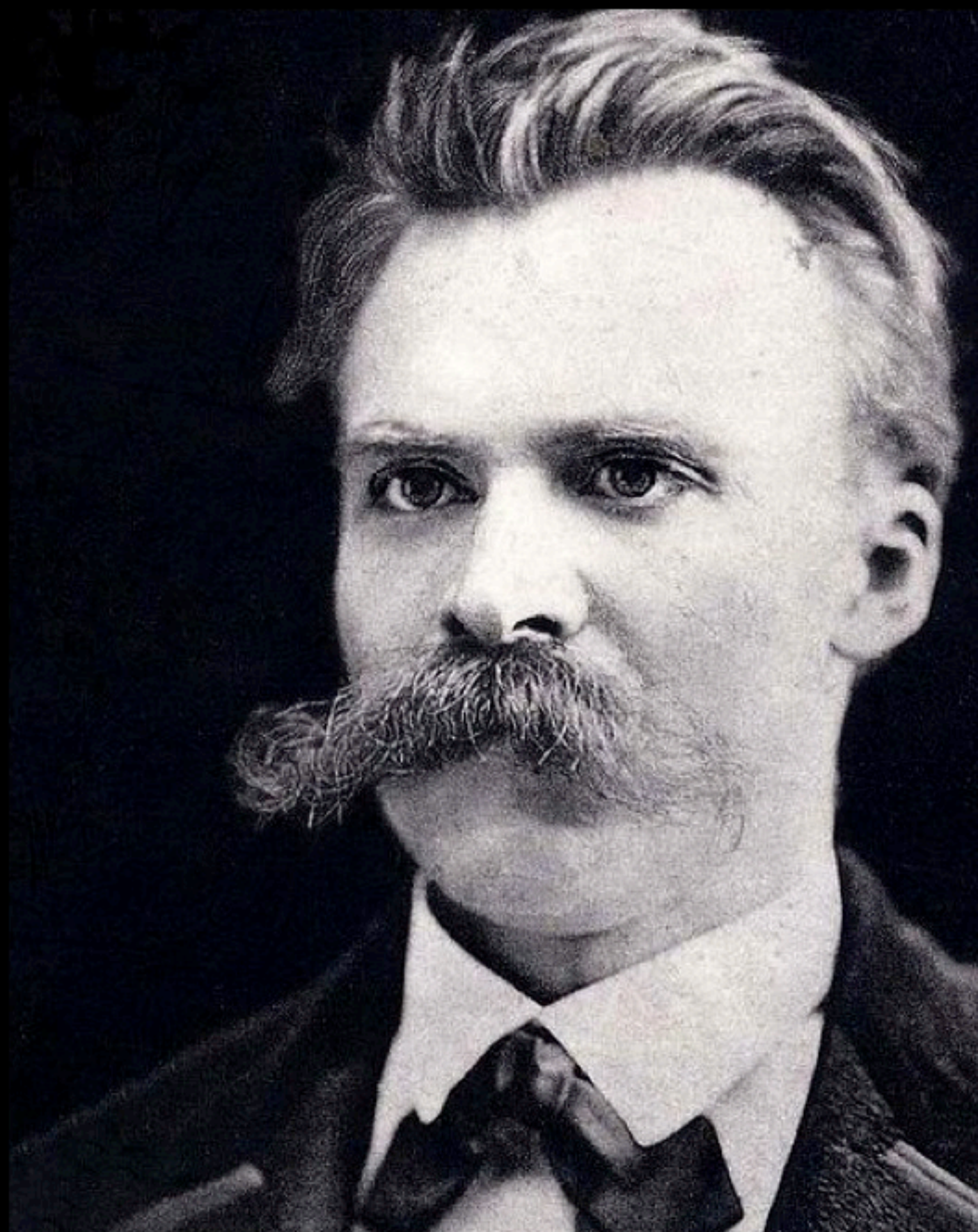
The figures
don't lie?

“It's not
the figures lying,
it's the
liars figuring”

But numbers DO lie!

“For the invention
of the laws of numbers
was made on
the basis of the error,
dominant even from
the earliest times,
that there are
identical things

(but in fact
nothing is identical
with anything else) ...



... The assumption
of plurality
always presupposes
the existence of
something that occurs
more than once:
but precisely here
error already holds sway,
here already we are
fabricating beings,
unities
which do not exist.”





Infinity

“is abstract nonsense”

Doron Zeilberger

the number of even positive integers
= the number of odd positive integers
= the number of positive integers

ABSURD!

$$\infty + 1 = \infty \quad \infty \times 2 = \infty \quad \text{but} \quad 1 \div \infty = 0$$

ABSURD!

... BUT USEFUL

An Answer but no Solution

$$S = 1 - 1 + 1 - 1 + 1 - 1 + 1 - 1 + 1 - 1 + 1 \dots\dots\dots$$

$$S = \quad 1 - 1 + 1 - 1 + 1 - 1 + 1 - 1 + 1 - 1 \dots\dots\dots$$

adding these two lines together we get

$$2S = 1 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 \dots\dots\dots$$

$$2S=1 \quad \text{and} \quad \text{hence } S=1/2$$

Paradox: a sum of integers is a fraction!

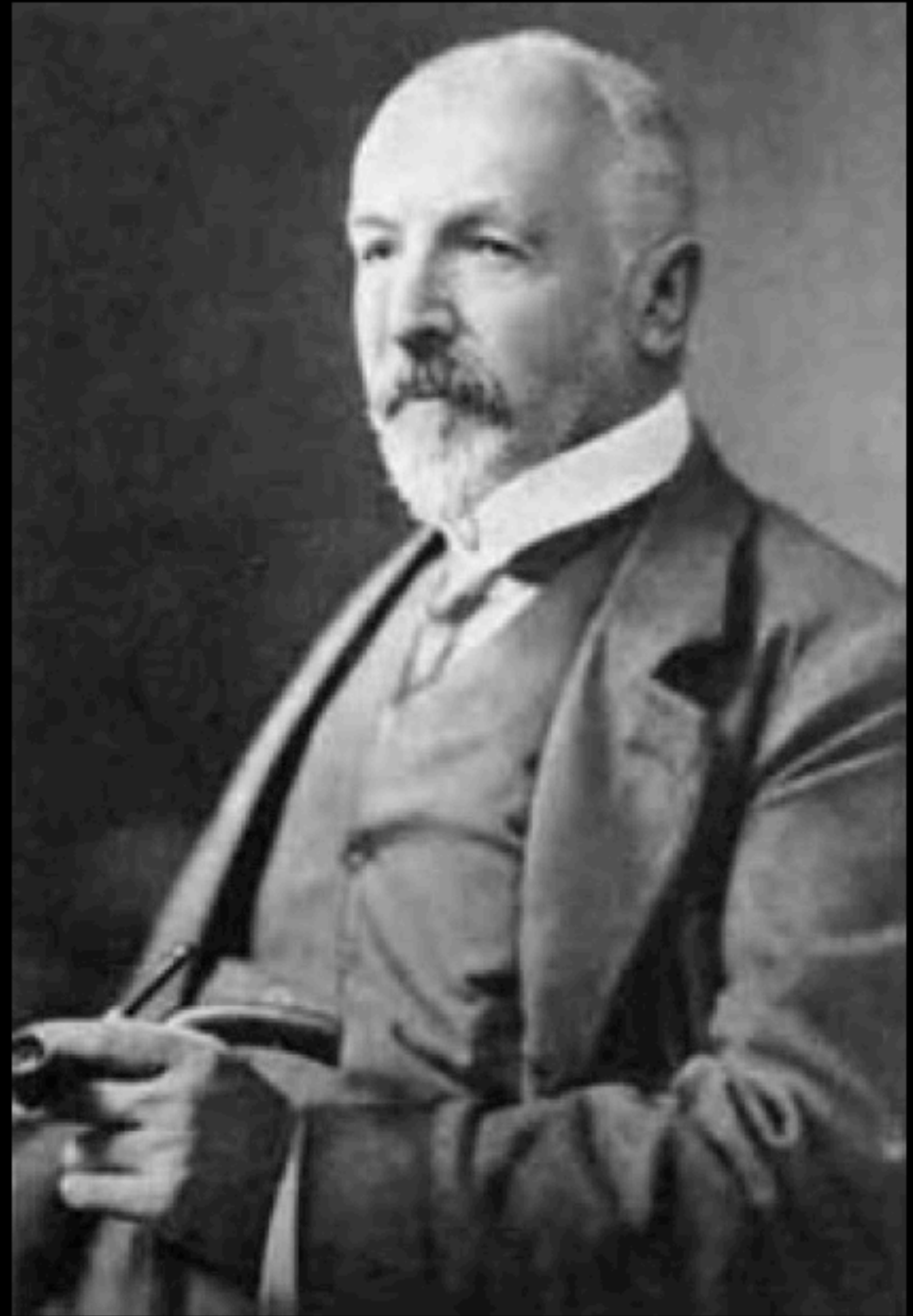
“In mathematics you
don’t understand
things. You just get
used to them”

John von Neumann



How big is infinity?

Georg Cantor





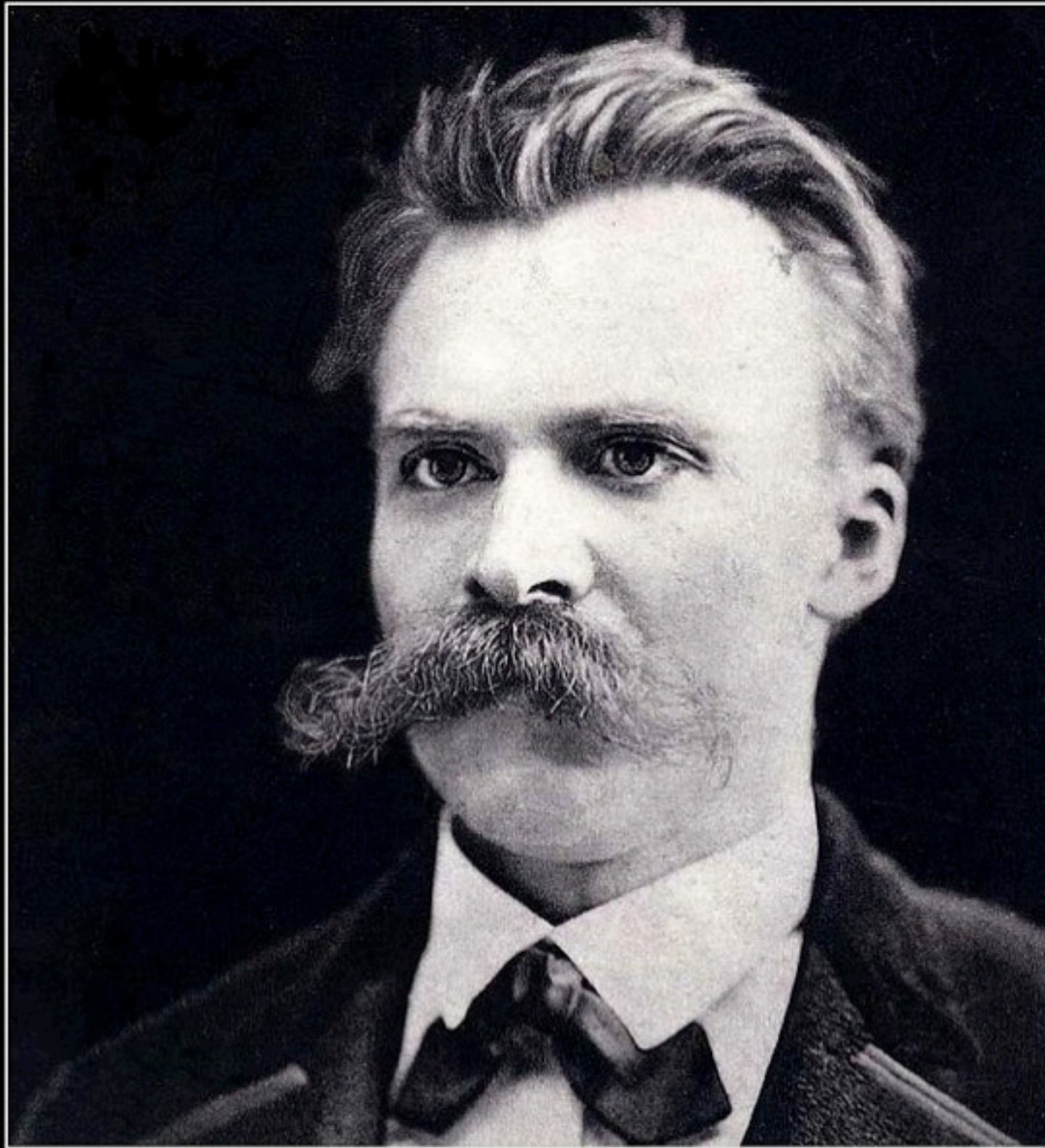
‘set theory is a disease from which
mathematics will one day recover’

Jules Henri Poincaré

$1/\infty=0$... ZERO

the something that is not
OR the nothing that is

the absence of a particular something
OR the presence of nothing?



Human,
All too Human

“What convinces us is
not necessarily true,
it is merely convincing”
(Nietzsche)

“... our fundamental tendency is to assert that the falsest judgements (to which synthetic *a priori* judgements belong) are the most indispensable to us, that without granting as true the fictions of logic, without measuring reality against the purely invented world of the unconditional and self-identical, without a continual falsification of the world by means of numbers, mankind could not live - that to renounce false judgments would be to renounce life, would be to deny life [...]”
(Nietzsche).

“mathematics,
which would certainly not have originated
if it had been known from the beginning
that there is no exactly straight line in nature,
no real circle, no absolute measure”
(Nietzsche)

We can never leave three-dimensions

The point and line paradoxes

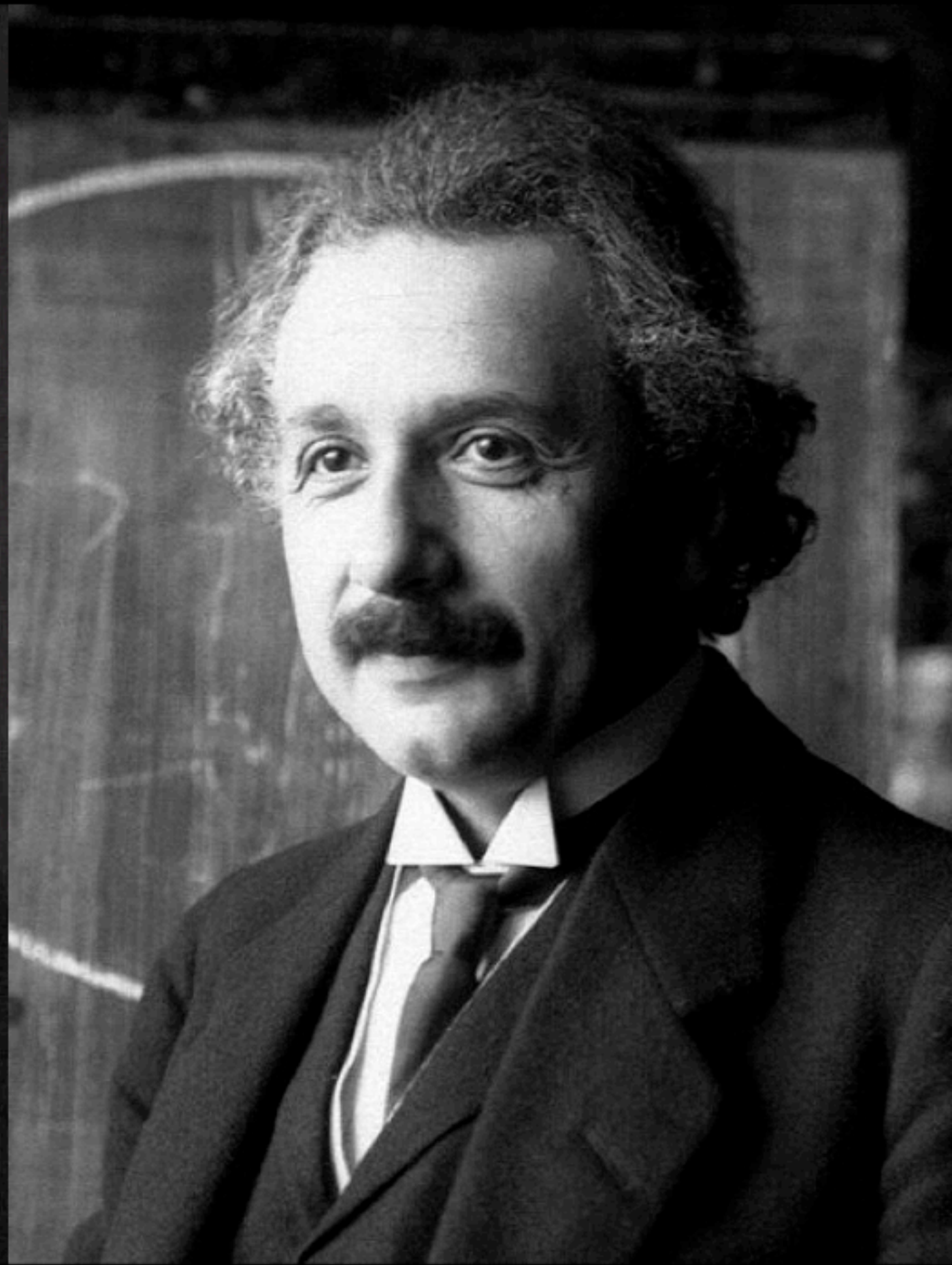
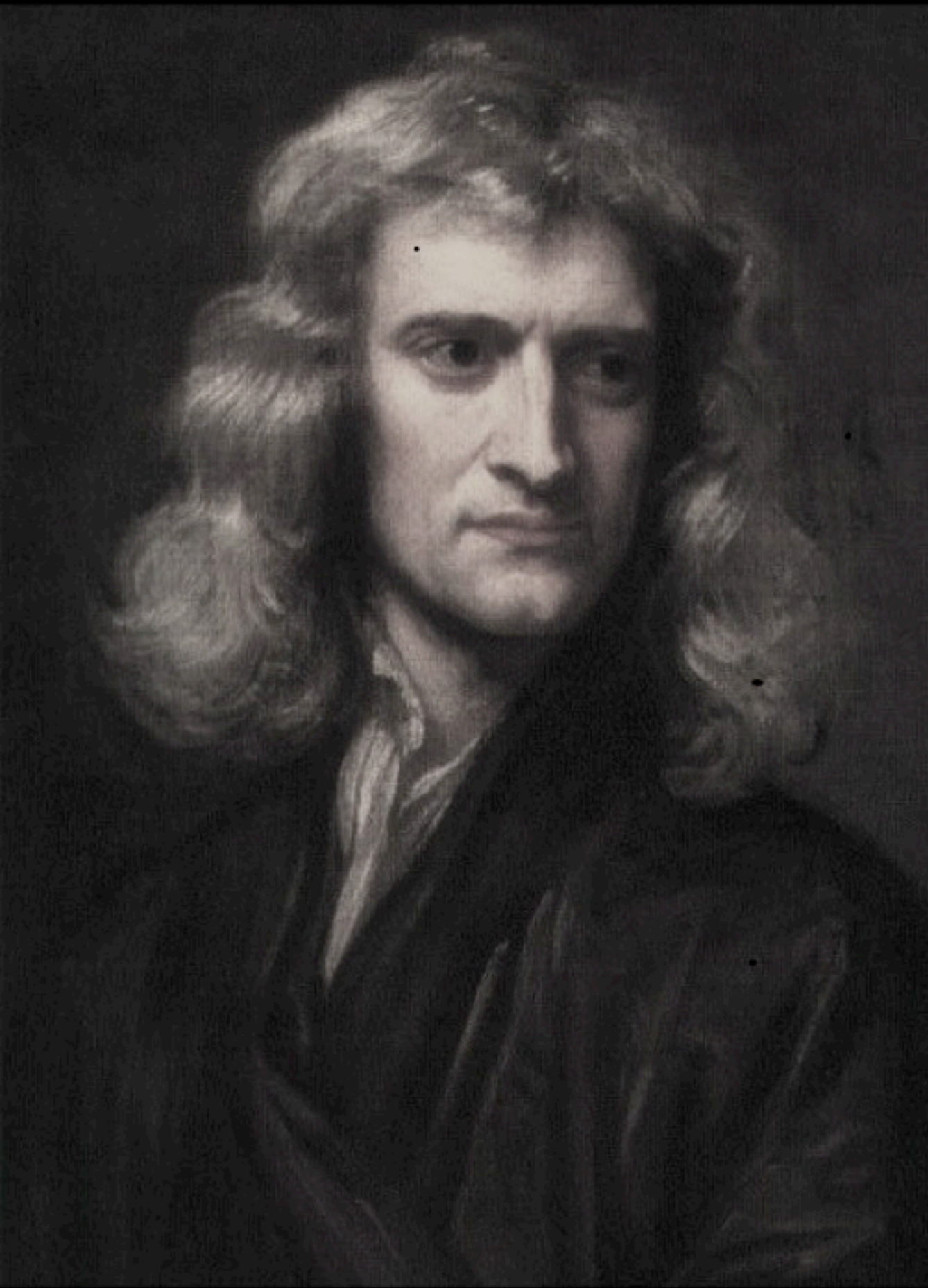
the difference between
 $(0,1]$ and $[0,1]$

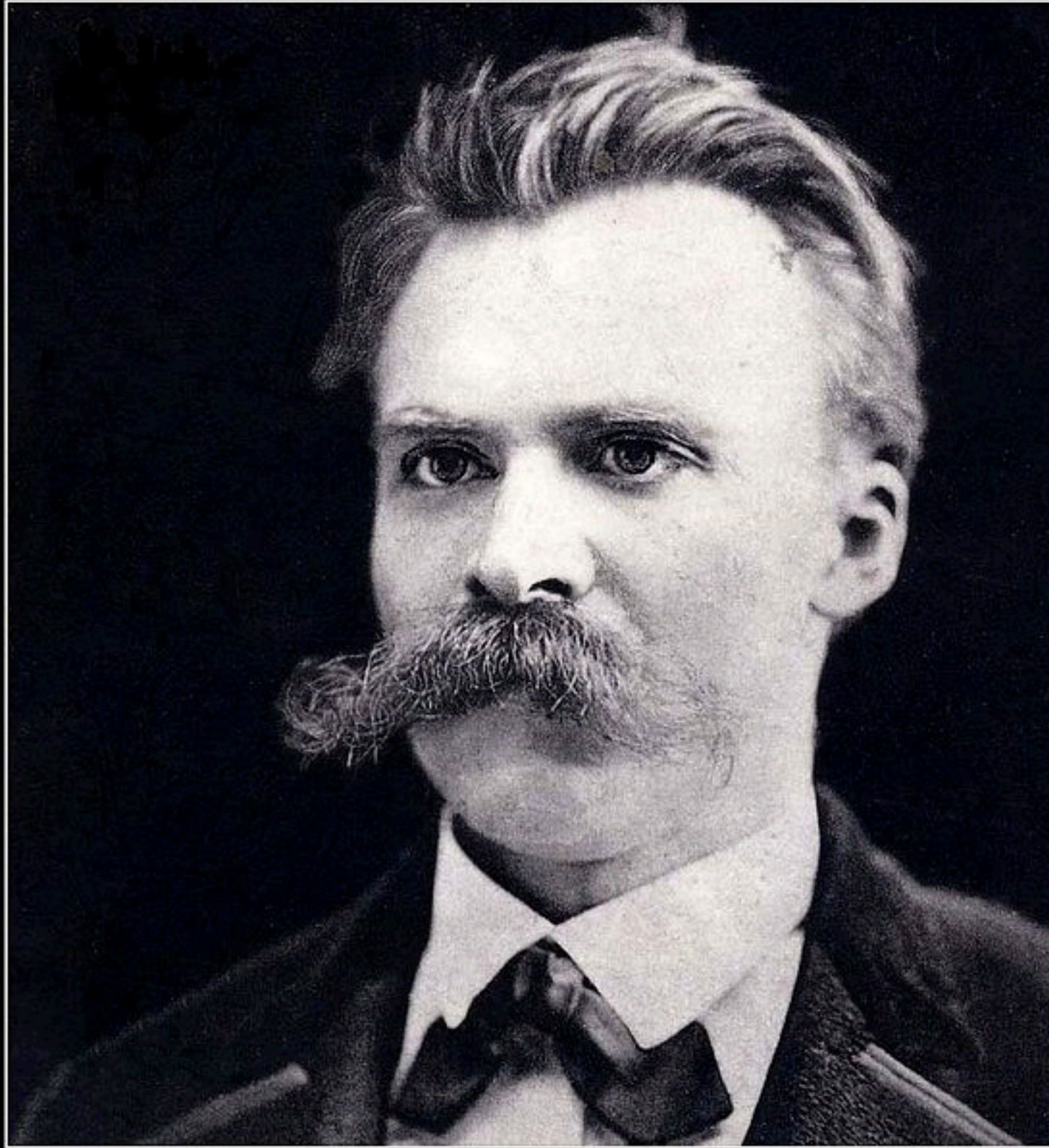
Richard Feynman

“mathematics is not a science
from our point of view, in the
sense that it is not a
natural science...
the test of its validity is not
experiment”

an epistemological paradox:
Science is created upon
a non-science







‘When one rows,
it is not the rowing
that moves the ship;
rather rowing is simply a
magical ceremony
by which one compels a
demon to move it’
(Nietzsche)

“It was a shocking discovery, of course, that Newton’s laws are wrong, after all the years in which they seemed to be accurate.

Of course it is clear, not that the experiments were wrong, but that they were done over only a limited range of velocities, so small that the relativistic effects would not have been evident. But nevertheless, we now have a much more humble point of view of our physical laws – everything *can* be wrong!”



Richard Feynman

What sort of reality exists
that allows for
the concurrent production of
similar yet different representations?

Surely the very possibility of
drawing different distinctions for
the so-called concept of gravity
negates the intrinsic objectivity that
the descriptions are supposed to encapsulate.

How is this paradox to be resolved?

In Physics, totally artificial
and thus unnatural linear expectations
become incorporated into the discipline itself
without raising a single quizzical eyebrow,
just so that the paradoxes in theories
may be suppressed.

However, these paradoxes remain,
and go on to influence the way
the theory and the discipline evolve.

Bizarre!

Particles in Physics

Elementary	Fermions	Quarks	u · d · c · s · t · b		
		Leptons	e [−] · e ⁺ · μ [−] · μ ⁺ · τ [−] · τ ⁺ · ν _e · ν̄ _e · ν _μ · ν̄ _μ · ν _τ · ν̄ _τ		
	Bosons	Gauge	γ · g · W [±] · Z		
	Others	Ghosts			
	Hypothetical	Superpartners	Gauginos	Gluino · Gravitino	
			Others	Axino · Bosino · Chargino · Higgsino · Neutralino · Sfermion	
		Others	A ⁰ · Dilaton · G · H ⁰ · J · Tachyon · X · Y · W' · Z' · Sterile neutrino		
Composite	Hadrons	Baryons / Hyperons	N (p · n) · Δ · Λ · Σ · Ξ · Ω		
		Mesons / Quarkonia	π · ρ · η · η' · φ · ω · J/ψ · Υ · θ · K · B · D · T		
	Others	Atomic nuclei · Atoms · Exotic atoms (Positronium · Muonium · Onia) · Molecules			
	Hypothetical	Exotic hadrons	Exotic baryons	Dibaryon · Pentaquark	
			Exotic mesons	Glueball · Tetraquark	
		Others	Mesonic molecule · Pomeron		
	Quasiparticles	Davydov soliton · Exciton · Magnon · Phonon · Plasmon · Polariton · Polaron · Roton			

Solutions always ‘multiply, proliferate, disperse, circulate, diversify, diffuse the original problem’ (Rossbach).

October 18, 2009

A particle God doesn't want us to discover

Could the Large Hadron Collider be sabotaging itself from the future, as some physicists say

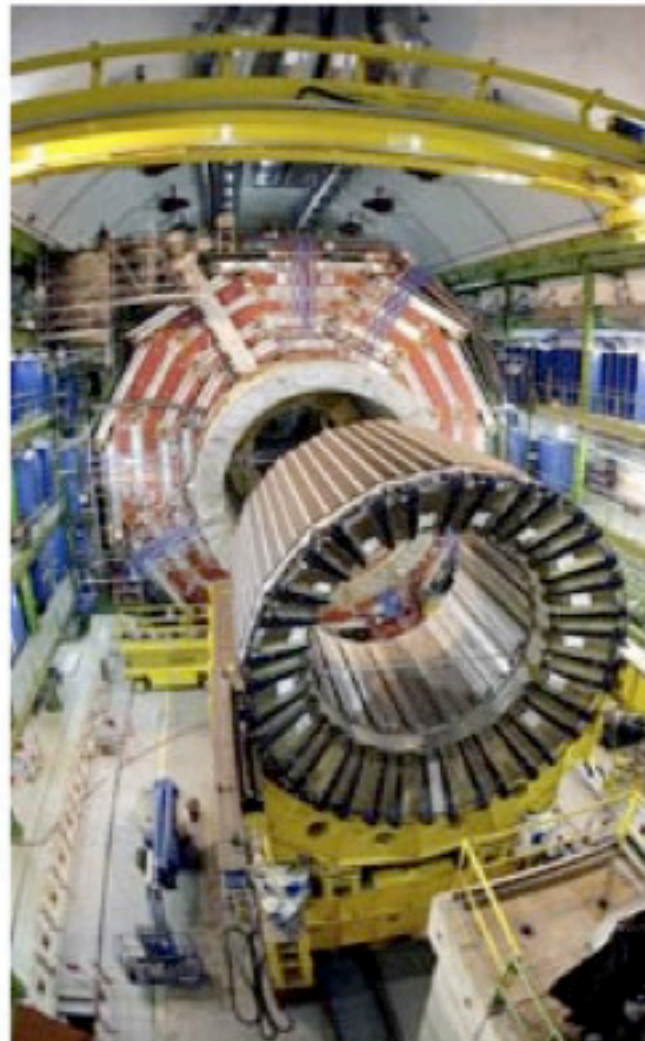
Jonathan Leake

208 COMMENTS | RECOMMEND? (144)

Explosions, scientists arrested for alleged terrorism, mysterious breakdowns — recently Cern's Large Hadron Collider (LHC) has begun to look like the world's most ill-fated experiment.

Is it really nothing more than bad luck or is there something weirder at work? Such speculation generally belongs to the lunatic fringe, but serious scientists have begun to suggest that the frequency of Cern's accidents and problems is far more than a coincidence.

The LHC, they suggest, may be sabotaging itself from the future — twisting time to generate a series of scientific setbacks that will prevent the machine fulfilling its destiny.



TIMES RECOMMENDS

- How a gift horse revived Island race
- The collective art of doing it on the cheap
- Helena Bonham Carter: 'I'm not a dirty person'

EXPLORE SCIENCE

- EUREKA
- BIOLOGY AND EVOLUTION
- EARTH AND ENVIRONMENT
- GENETICS
- LIVING
- MEDICINE
- PHYSICS
- POLITICS
- SPACE
- EUREKA ZONE



From Times Online Website



Photo: Bernd-Kowalzik

Moondog:

“What I say of science here,
I say without condition,
that Science is the latest,
and the greatest superstition”

“Refined ignorance” = Absurdity

Planck length
($\cong 1.616252 \times 10^{-35}$ metres)
the smallest meaningful length

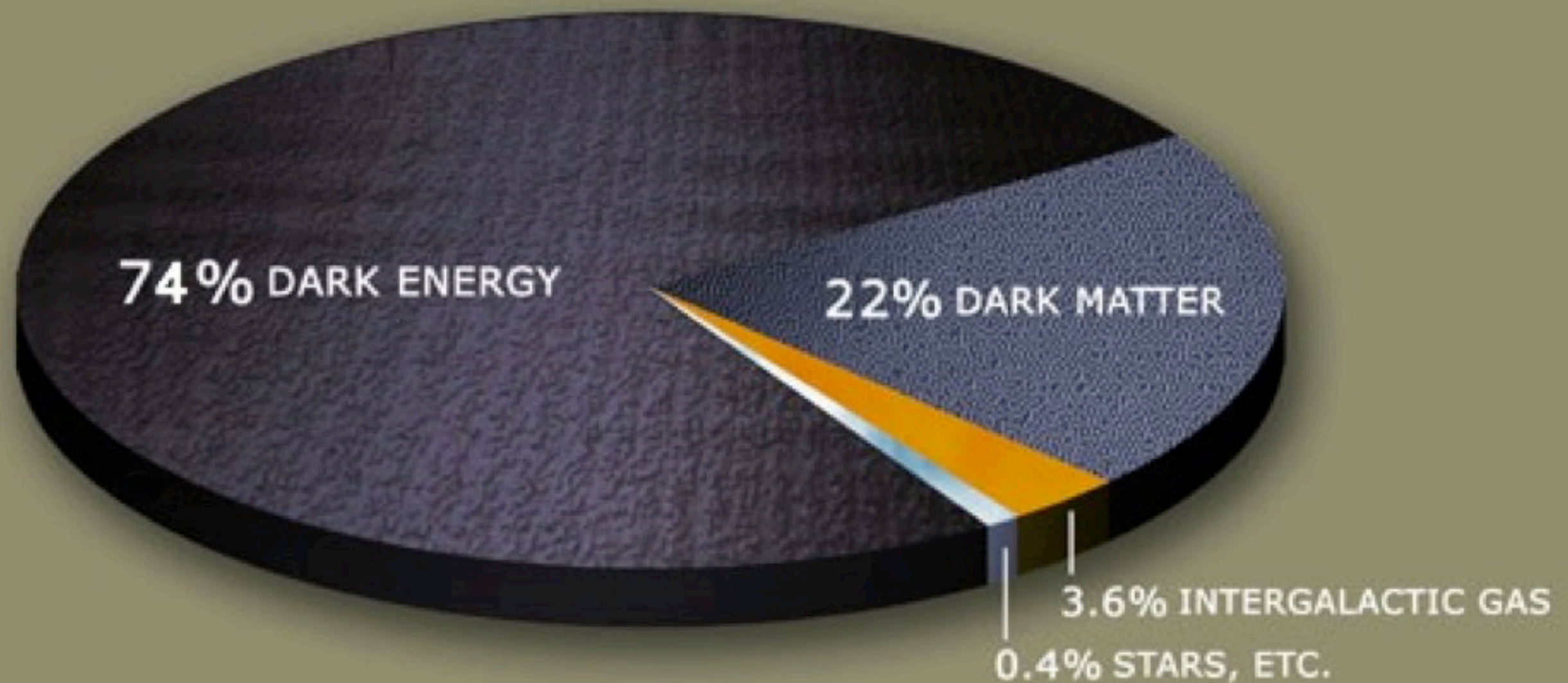
“any device that tries to beat the limit
will be crushed into a black hole of its own making”



“When a lot of different
remedies are proposed
for a disease,
that means the disease
can't be cured”

Chekhov, 1904
The Cherry Orchard

Dark Energy and Dark Matter!



Classification of Mathematical Problems * **and Their Ease of Solution By Analytical Methods**

After Franks, 1967

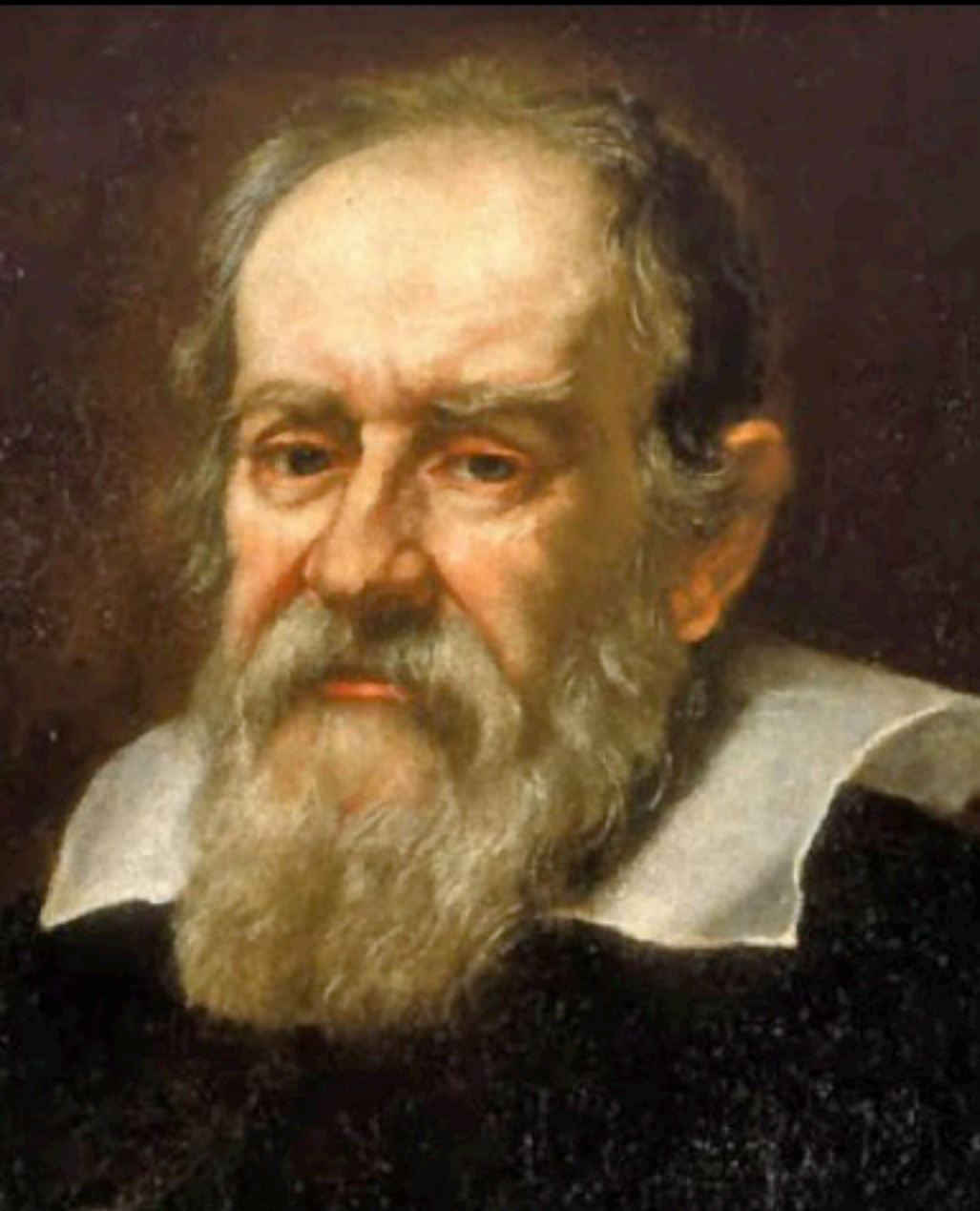
Equation Type:	<u>Linear</u>			<u>Nonlinear</u>		
	<u>One Equation</u>	<u>Several Equations</u>	<u>Many Equations</u>	<u>One Equation</u>	<u>Several Equations</u>	<u>Many Equations</u>
Algebraic	Trivial	Easy	Essentially Impossible	Very Difficult	Very Difficult	Impossible
Ordinary Differential	Easy	Difficult		Essentially Impossible	Impossible	Impossible
Partial Differential	Difficult	Essentially Impossible		Impossible	Impossible	Impossible



Les Pains de Picasso, 1952, photo by Robert Doisneau

Pablo Picasso
“Computers are useless,
they only give you
Answers!!!!”

how well does
mathematics/computation
solve problems?



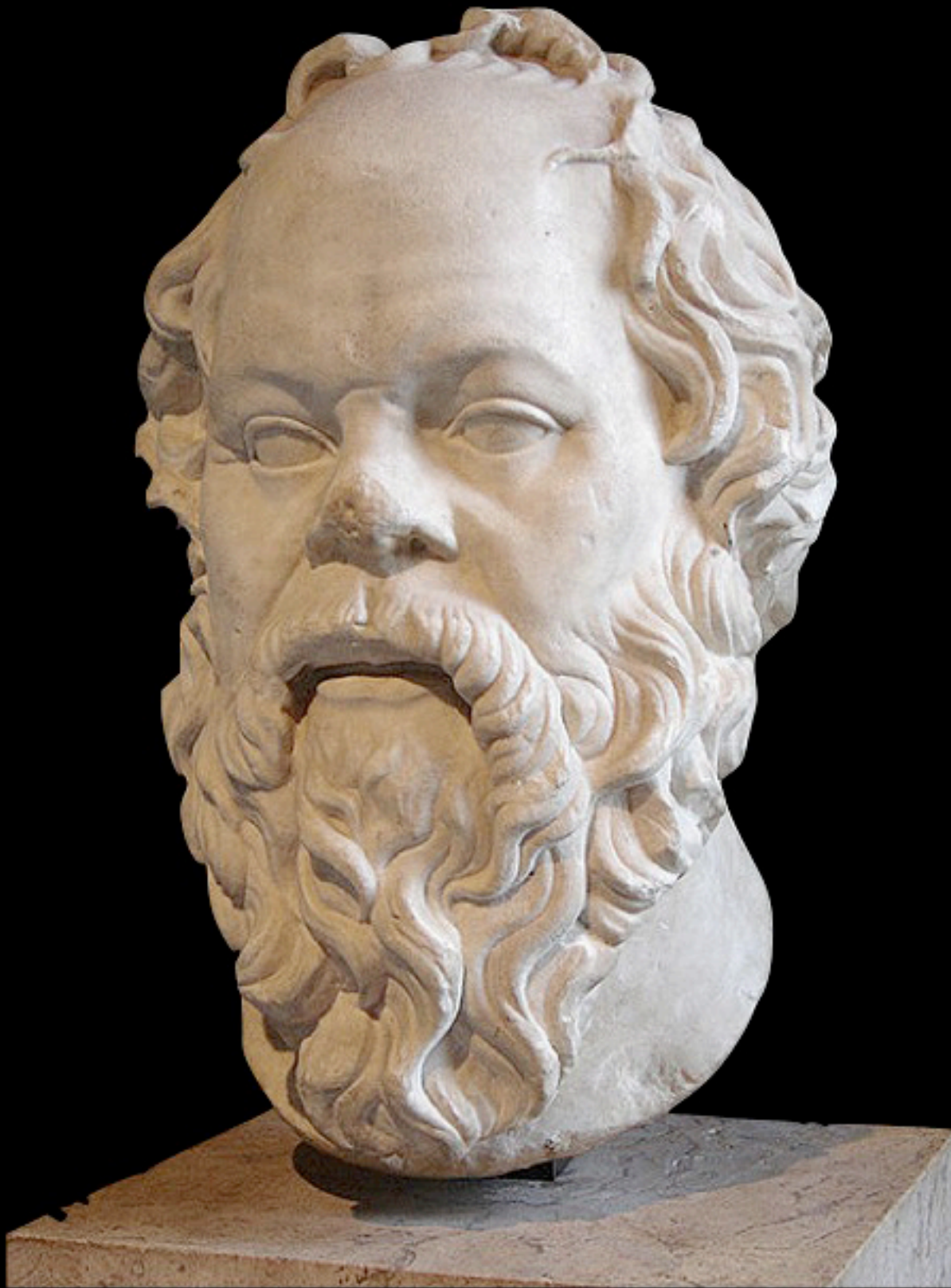
Galileo Galilei

the Inquisition insisted
that Galileo's theories
weren't the truth,
but simply delusions
that were appropriate
in calculating apparent
planetary motion

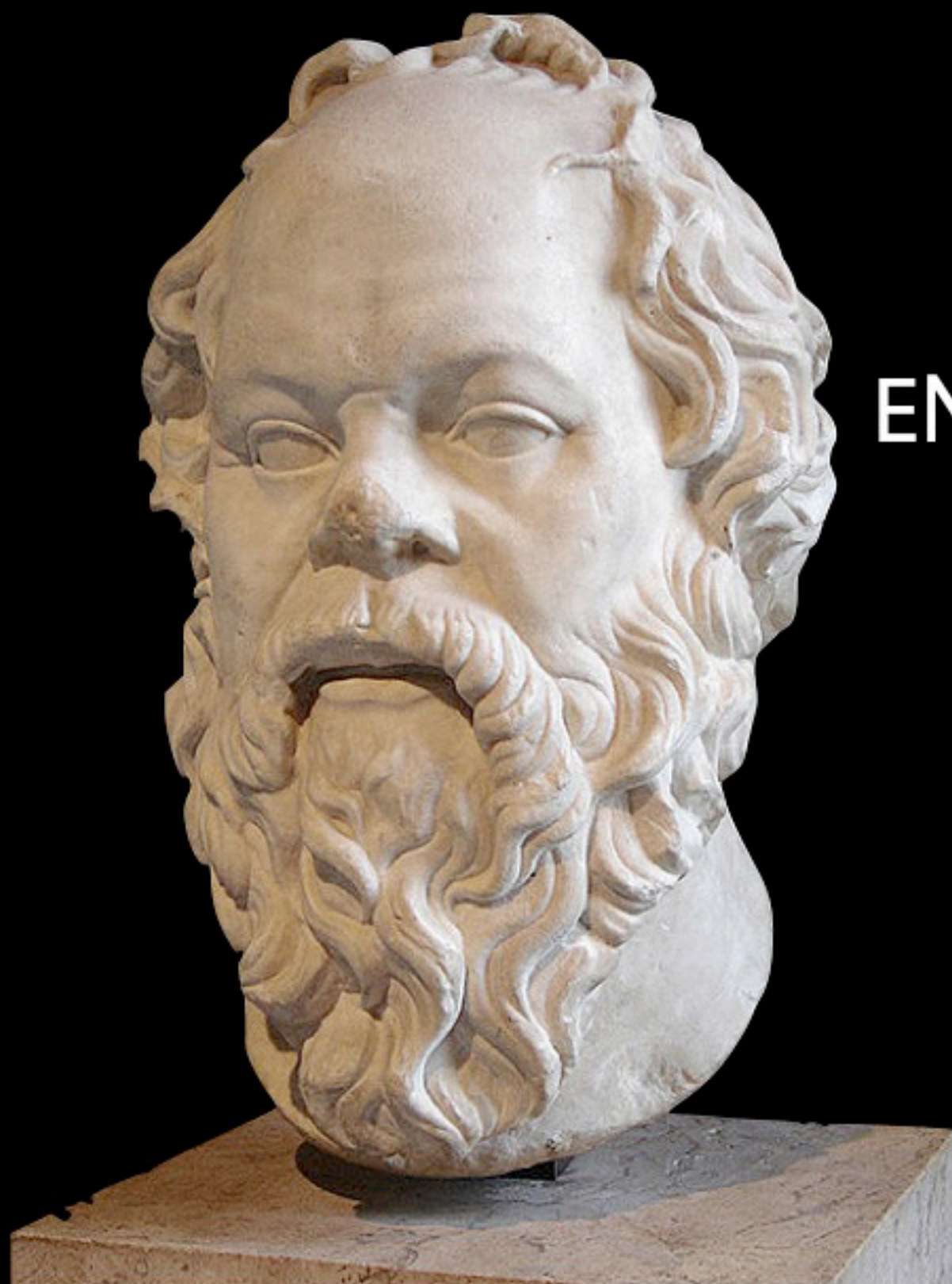
Plato's Cave

Is it possible for
an enlightened individual
go out of the cave
into the sunshine,
and see the marvel
that is reality?

Truth is a formal tautology;
a 'suitably falsified world'
of 'refined ignorance';
consistency within
a system of self-reference.



Socrates



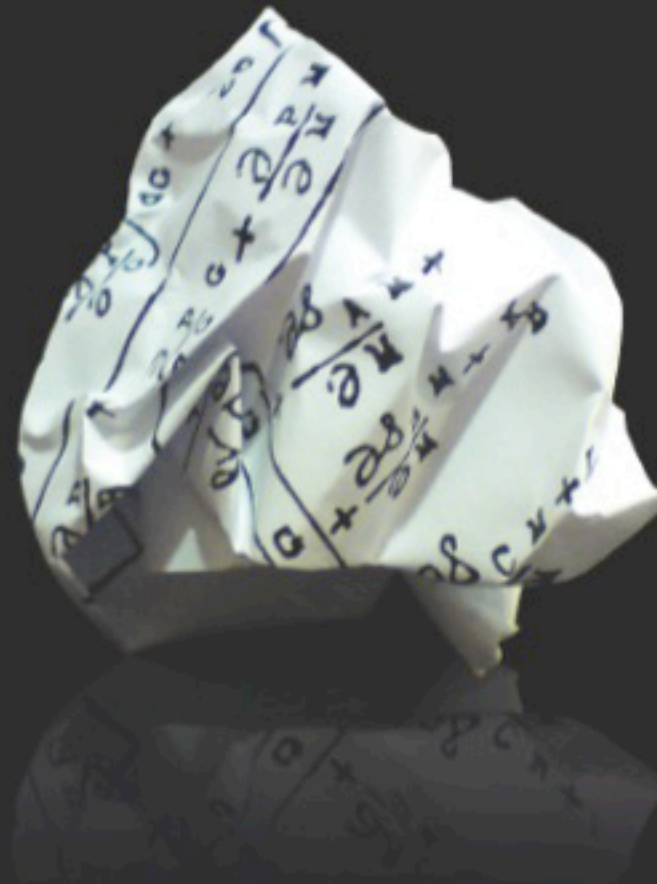
ΕΝ ΟΙΔΑ ΟΤΙ ΟΥΔΕΝ ΟΙΔΑ

“all that I know
is that I know nothing”

Socrates

Science's FIRST MISTAKE

DELUSIONS IN PURSUIT OF THEORY



Ian O. Angell &
Dionysios S. Demetis

B L O O M S B U R Y

<http://www.sciencesfirstmistake.com>