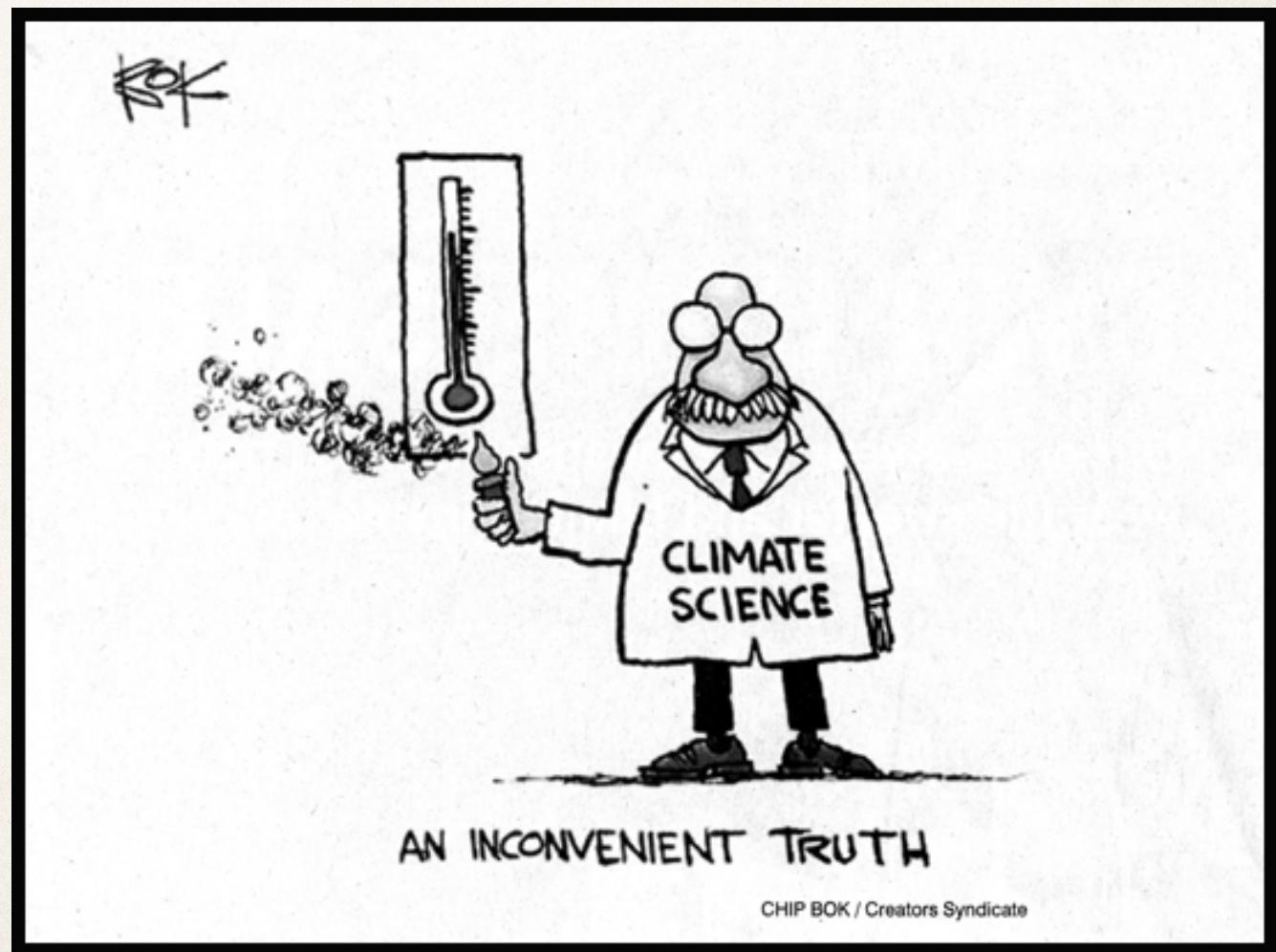


Beliefs and Skepticism

How do we
justify our beliefs?

Can we doubt all
our beliefs? Can
everything we
believe be false?



Some Definitions

Belief is
a proposition
that we hold true

Skepticism is
the attitude of
doubting some
or all our beliefs

A piece of
knowledge is
a belief that is true
and adequately
justified by
evidence and
reason

Examples:

- Lehman is in the Bronx
- Obama is American
- We are alive
- God exists
(or God does not exist)
- Etc.

(1) How Do We Justify Our Beliefs?

Think, for example, how we justify the belief that *smoking increases the risk of lung cancer*.

We justify this belief **a posteriori** through

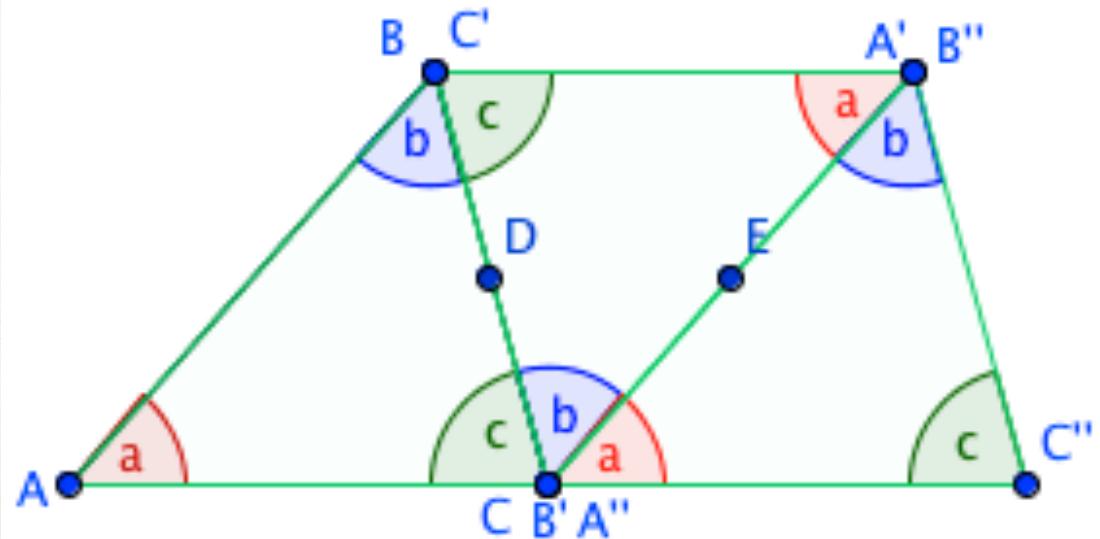
- sensory data;
- science experiments;
- observations;
- measurements;
- data collection.

But we cannot conduct the measurements and observations ourselves, so we must rely on the **testimony of others** who have conducted the measurements and observations.

(2) How Do We Justify Our Beliefs?

Think, for example, how we justify the belief that *the sum of the internal angles of every triangle is equal to 180 degrees*.

We justify this belief through a mathematical proof. This proof is *a priori* in the sense that it does not rely on sensory data but on reasoning and thinking alone.



Three Sources of Justification

A posteriori through

- sensory data;
- science experiments;
- observations;
- measurements;
- data collection.

Testimony of others who

have conducted measurements, observations, experiments, etc

A priori through

reasoning and thinking alone without relying on experience, observations, measurements, etc.

Knowledge versus Belief

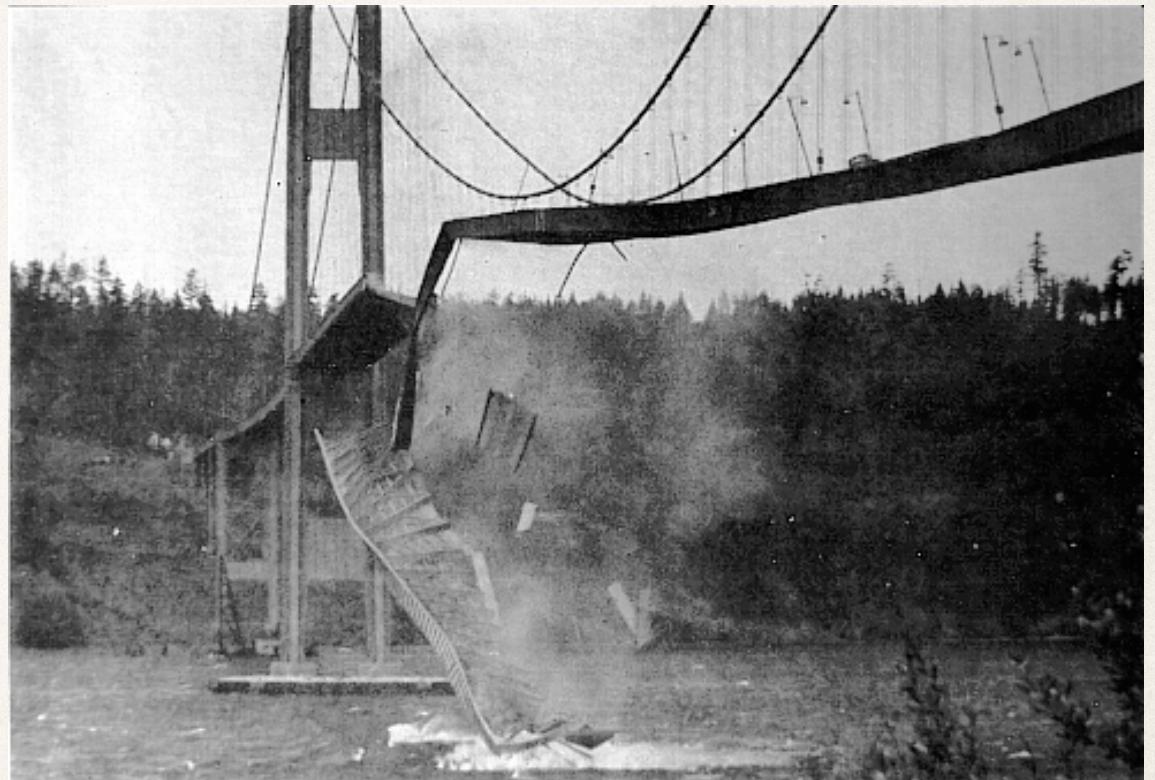
Why Care About
Knowledge in Addition to
Mere Truth Belief?

Suppose You Want to Build a Bridge



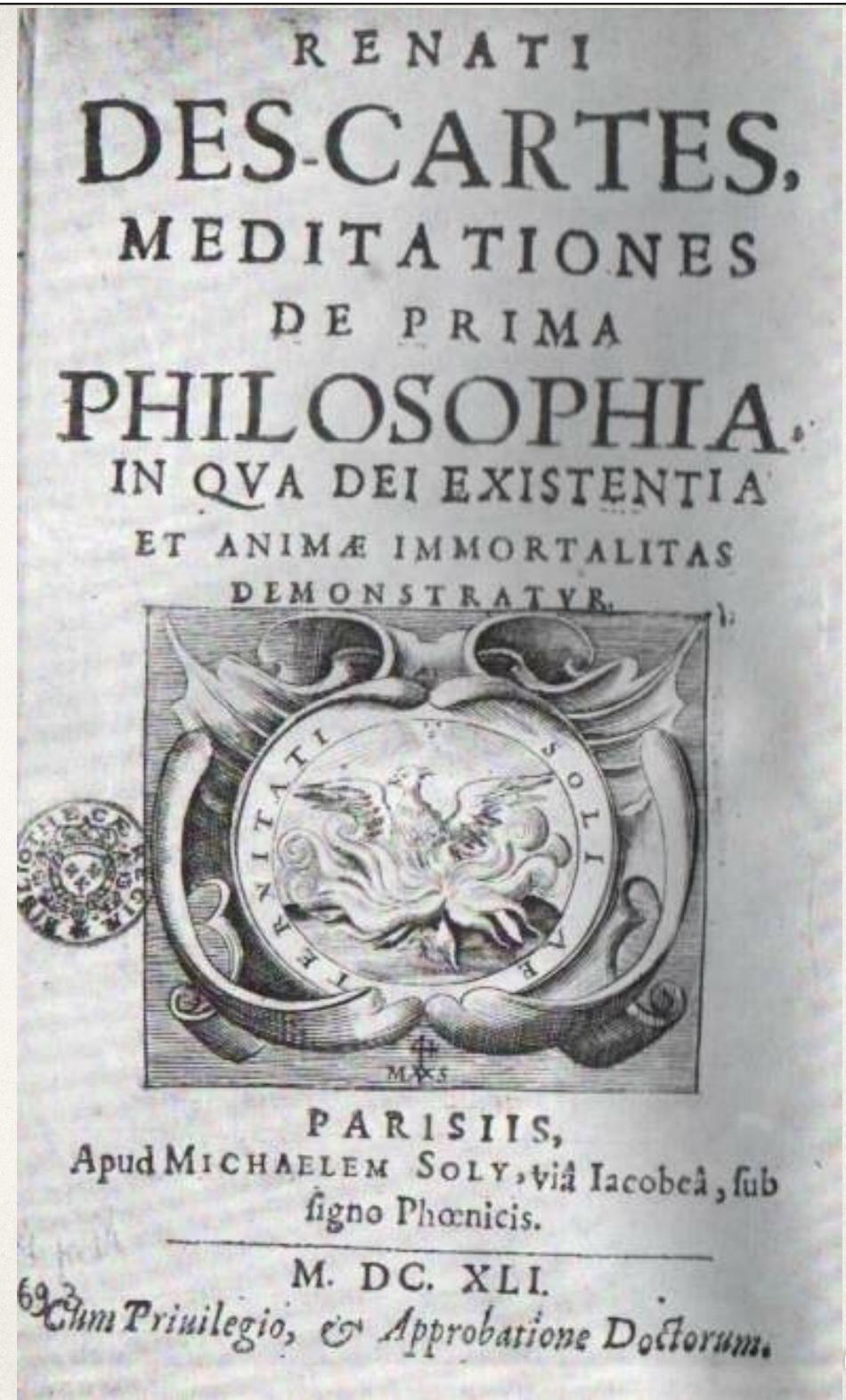
The Skeptical Worry in Bridge Construction

What if some of (or all) your observations, reasoning and thinking, and the testimony from others you relied upon are false? What could happen to the bridge and the people using it?

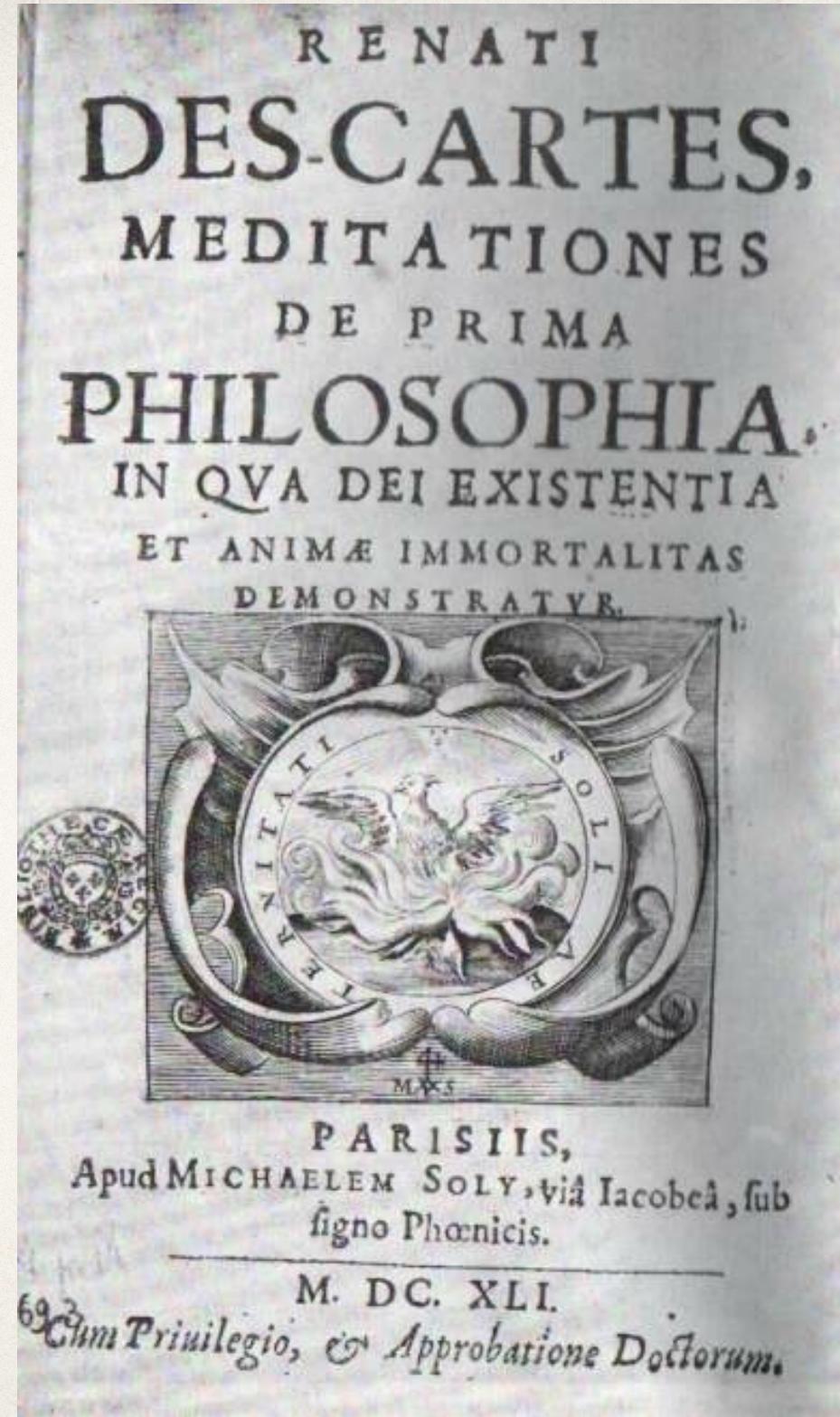


Tacoma Narrows Bridge Collapse, 1940, Washington
<https://www.youtube.com/watch?v=XggxeuFDaDU>

Descartes' Answer to Skepticism



Meditations on First Philosophy (1641)



Six Meditations in Six Days

- There are six meditations in total.
- We will only read two.
- Ideally, each meditation should occupy an entire day of thinking and reflecting.

First Meditation — First Day

“Whatever I have accepted until now as most true has come to me through my senses. But occasionally I have found that they have deceived me, and it is unwise to trust completely those who have deceived us even once.”

—Descartes, Meditation I

Sometimes
the Senses
Deceive Us...

<http://www.youtube.com/watch?v=lvvcRdwNhGM>



But the Senses Aren't Always Wrong!

“Yet although the senses sometimes deceive us about objects that are very small or distant, that doesn’t apply to my belief that I am here, sitting by the fire, wearing a winter dressing-gown, holding this piece of paper in my hands, and so on. It seems to be quite impossible to doubt beliefs like these, which come from the senses.”

—Descartes, Meditation I



What if I Am Dreaming?

“What a brilliant piece of reasoning! As if I were not a man who sleeps at night and often has all the same experiences while asleep as madmen do when awake—indeed sometimes even more improbable ones.

Often in my dreams I am convinced of just such familiar events— that I am sitting by the fire in my dressing-gown—when in fact I am lying undressed in bed!”

—Descartes, Meditation I

But the Truths
of Arithmetic
and Geometry
Are Special,
Because They
Remain the
Same Even in
One's Dreams

"arithmetic, geometry and other studies of the simplest and most general things—whether they really exist in nature or not—contain something certain and indubitable. For whether I am awake or asleep, two plus three makes five, and a square has only four sides. It seems impossible to suspect that such obvious truths might be false."

—Descartes, Meditation I

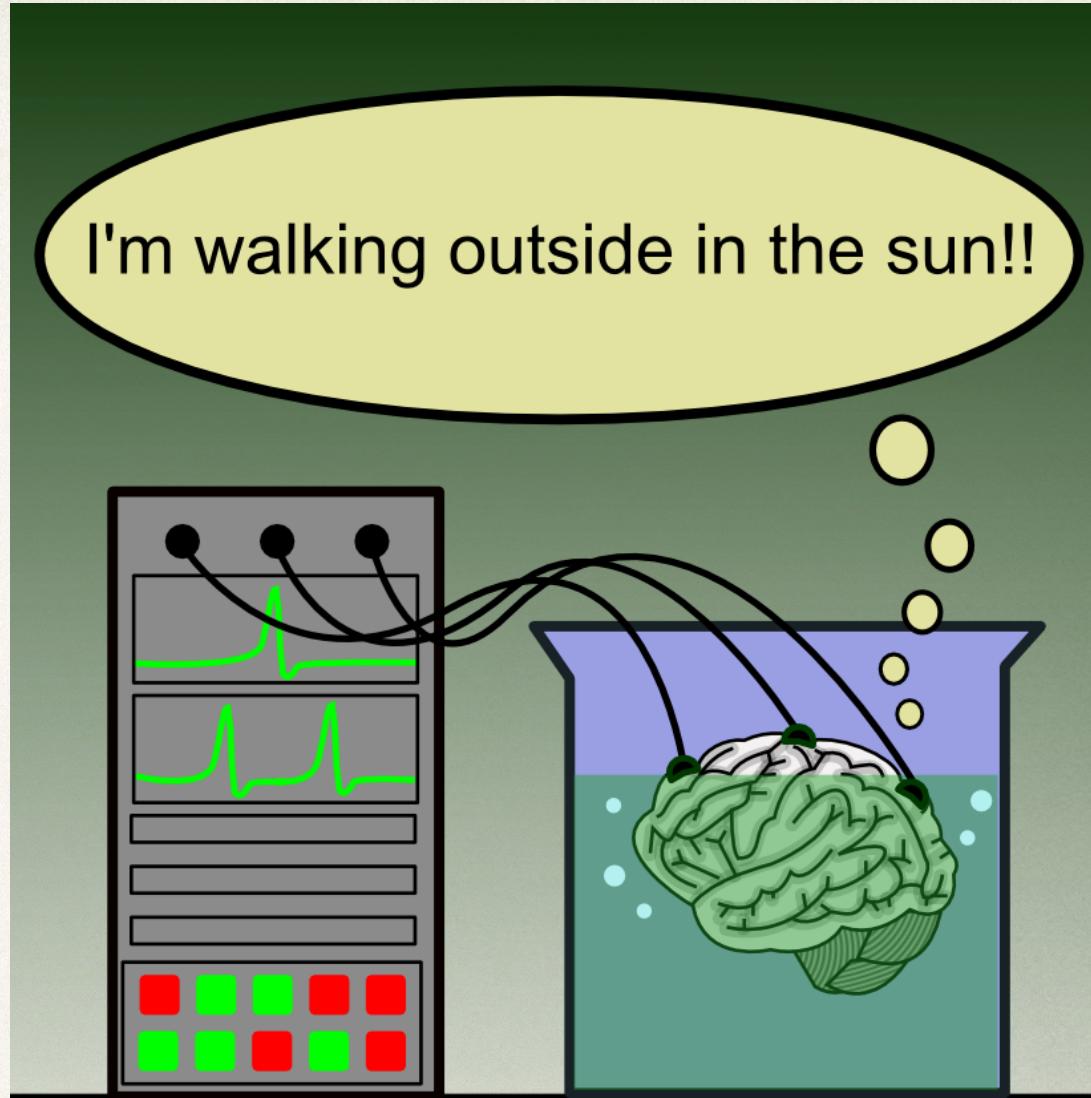
Malignant Genius Hypothesis

“so how do I know that I myself don’t go wrong every time I add two and three or count the sides of a square? Well, you might say, God would not let me be deceived like that, because he is said to be supremely good. But, I reply, if God’s goodness would stop him from letting me be deceived all the time, you would expect it to stop him from allowing me to be deceived even occasionally; yet clearly I sometimes *am* deceived.

[...] So I shall suppose that some malicious, powerful, cunning **demon** has done all he can to deceive me [...]”

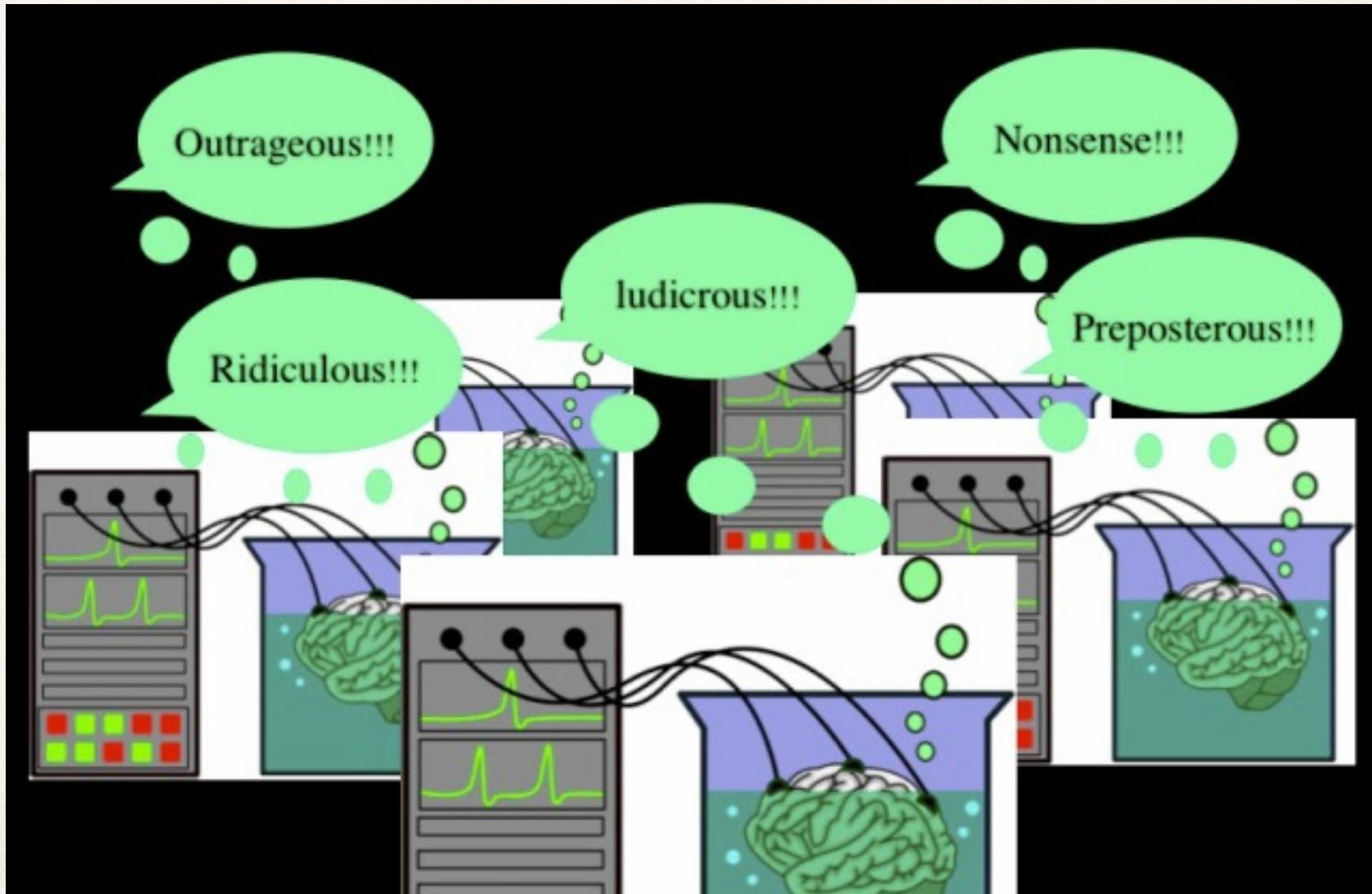
—*Descartes, Meditation I*

The Malignant Genius Hypothesis (or the Brain in a Vat Hypothesis)



Instead of being manipulated and deceived by a malignant genius, we might be deceived and manipulated by an evil supercomputer.

How Do You Know We Are Not Just Like The Idiots Below Thinking That We Are Not Brains in a Vat?



Three Stages of Doubt

1.Doubting what the senses tell us

At this **first** stage, we doubt what the senses tell us, but we do not doubt that we have a body or that we are here in this place at this moment.

2.Imagining that we are dreaming

At this **second** stage, we doubt that we have a body and that we are here, but we do not doubt the truths of arithmetic and geometry.

3.Malignant Genius Hypothesis (or Brain in a Vat Hypothesis)

At this **third** stage, everything is put into question.

Nothing is immune from doubt...

What To Do Now?

- How can we answer the tremendous challenge posed by the “malignant genius” hypothesis?
- Descartes thinks he has a conclusive answer to the challenge

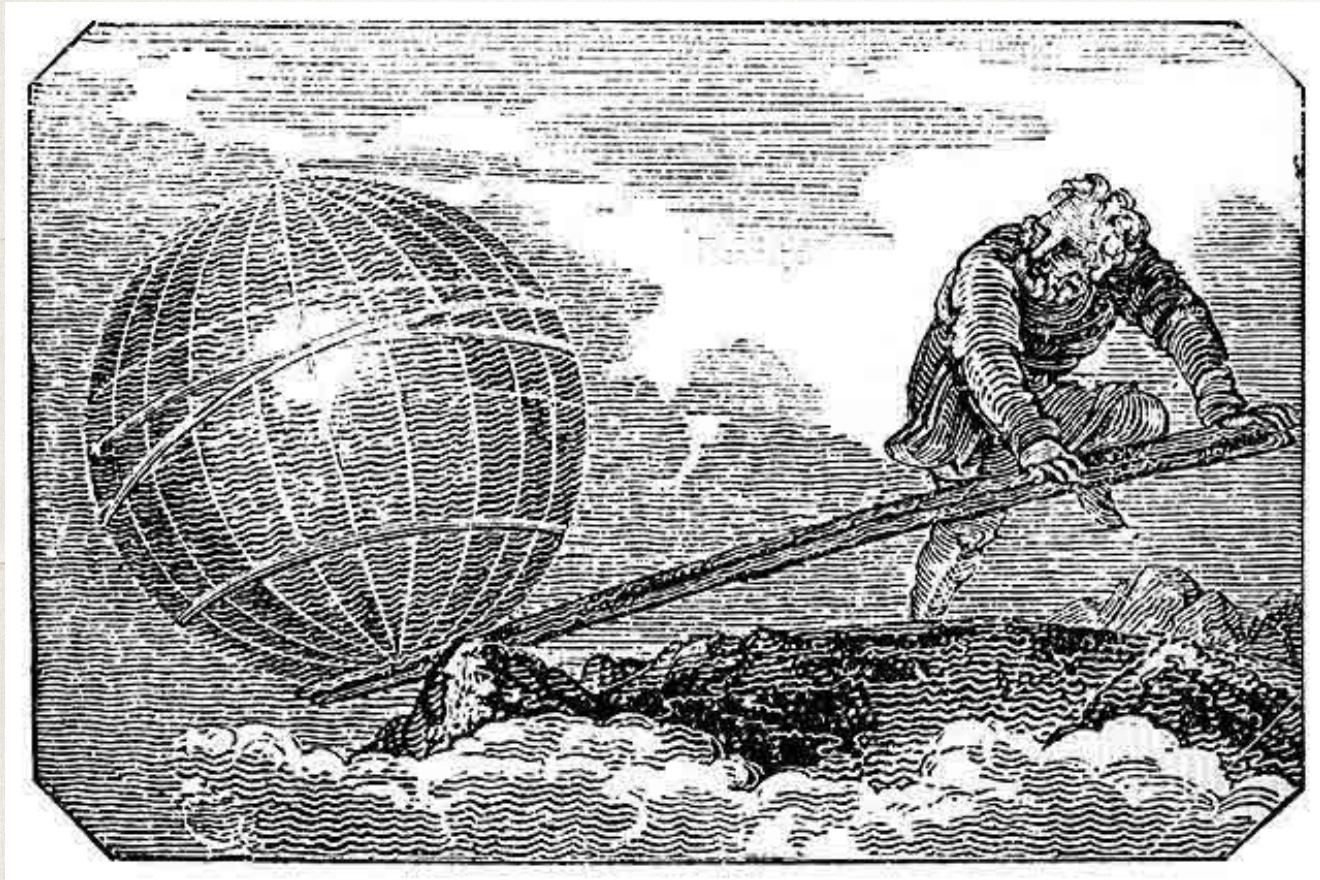
Second Meditation — Second Day

Descartes is Drowning in Doubt

“Yesterday’s meditation raised doubts
—ones that are too serious to be
ignored—which I can see no way of
resolving. I feel like someone who is
suddenly dropped into a deep
whirlpool that tumbles him around so
that he can neither stand on the
bottom nor swim to the top.
However, I shall force my way up.”

— *Descartes, Meditation II*

“I will set aside anything that admits of the slightest doubt, treating it as though I had found it to be outright false; and I will carry on like that until I find something certain”



“Archimedes said that if he had one firm and immovable point he could lift the world with a long enough lever; so I too can hope for great things if I manage to find just one little thing that is certain.”

– *Descartes, Meditation II*

Archimedes' Lever Principle



So, What Can Remain Certain After One Doubts Everything?

“ I will suppose, then, that everything I see is fictitious. I will believe that my memory tells me nothing but lies. I have no senses. Body, shape, extension, movement and place are illusions. So what remains true? Perhaps just the one fact —that nothing is certain!”

— *Descartes, Meditation II*

Can I Doubt That I Exist?

“...I have just said that I have no senses and no body, and I am so bound up with a body and with senses that one would think that I can’t exist without them. Now that I have convinced myself that there is nothing in the world—no sky, no earth, no minds, no bodies—does it follow that I don’t exist either?

No it does not follow; for if I convinced myself of something, then I certainly existed.”

– Descartes, Meditation II

I Think, I Exist...

“ But there is a supremely powerful and cunning deceiver who deliberately deceives me all the time!

Even then, if he is deceiving me I undoubtedly exist: let him deceive me all he can, he will never bring it about that I am nothing while I think I am something. So after thoroughly thinking the matter through I conclude that this proposition, **I am, I exist, must be true whenever I assert it or think it.**”

—Descartes, Meditation II

Descartes' Argument

- Either I am not deceived or I am deceived
 - If I am not deceived, then I exist.
 - If I am deceived, then I exist. (*why?*)
 - If I'm deceived, there is something being deceived, namely myself.
 - If there is something being deceived, namely myself, I must exist.
 - So, If I am deceived, then I exist.
- Either way I exist.

St. Augustine Came Up With a Similar Argument

“If I am mistaken, I am.”

(St. Augustine, *The City of God*, Book XI, 26)

“By not positively affirming that they are alive, the skeptics ward off the appearance of error in themselves, yet they do make errors simply by showing themselves alive; one cannot err who is not alive. **That we live is therefore not only true, but it is altogether certain as well.**”

(St. Augustine, *Enchiridion*, Chapter 7 section 20).

Descartes' Reasoning

- Either I am not deceived or I am deceived
 - If I am not deceived, then I exist.
 - If I am deceived, then I exist. (*why?*)
 - If I'm deceived, there is something being deceived, namely myself.
 - If there is something being deceived, namely myself, I must exist.
 - So, If I am deceived, then I exist.
- Either way I exist.

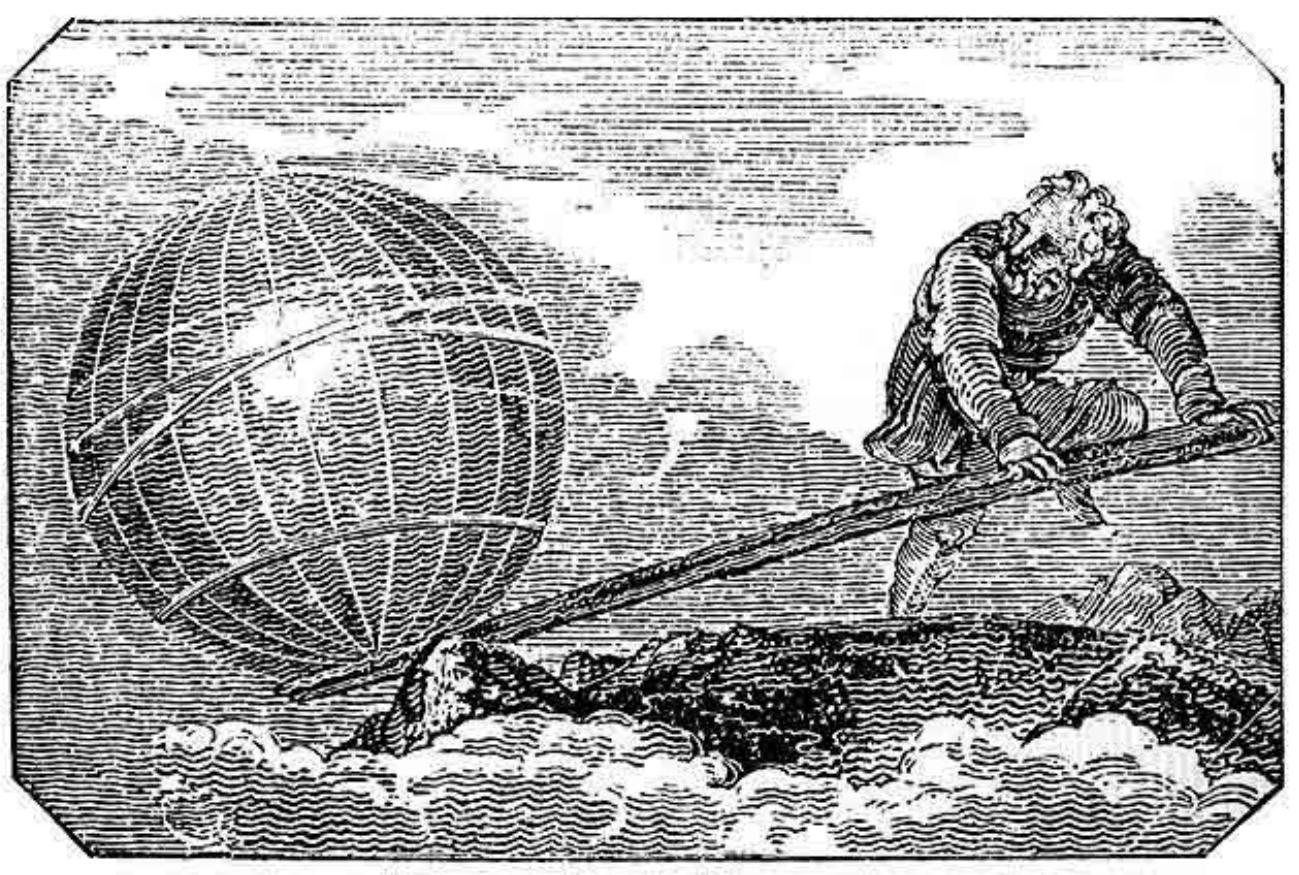
I (You, We) can Doubt As Much as I Like, but There is One Thing I cannot Doubt

— *That I Exist*

But how is “I exist” an answer to skepticism? The skeptic can still doubt many other things.

The indubitable nature of “I exist” is the first step against skepticism

“I think” Is the Archimedean Point



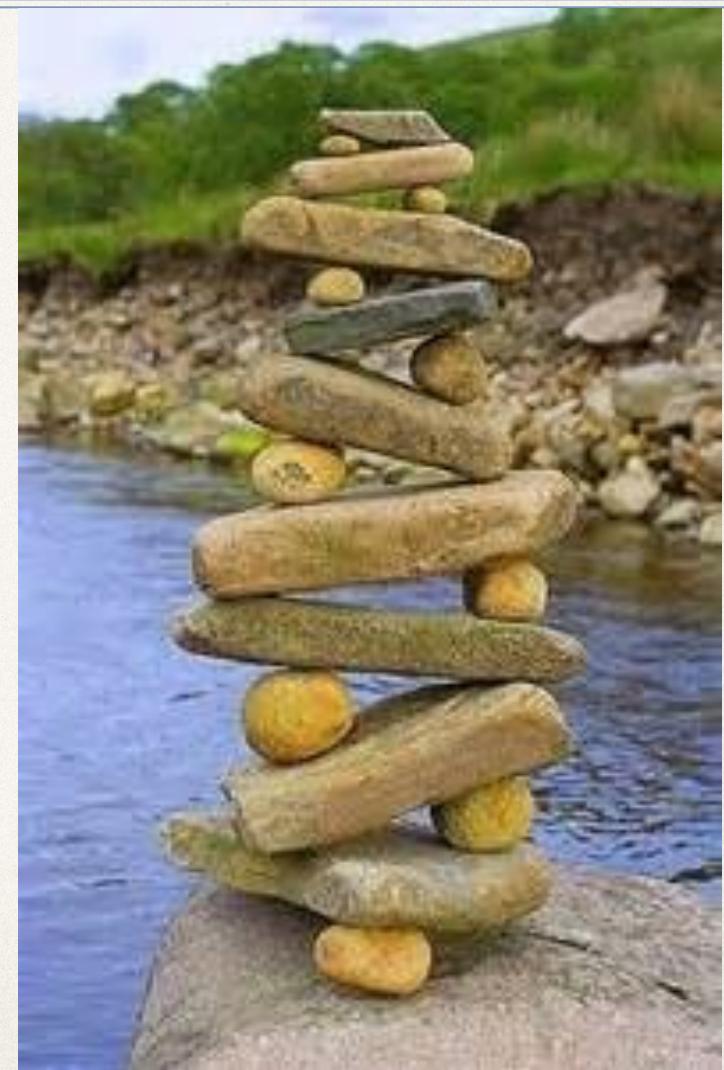
“Archimedes said that if he had one firm and immovable point he could lift the world with a long enough lever; so I too can hope for great things if I manage to find just one little thing that is certain.”

Descartes' Large Philosophical Project in the Meditations

- **Med I:** Everything is being doubted
- **Med II:** First certainty—that *I exist* and *I am a thinking thing*
- **Med III:** Second certainty — that “God exists and is good”
- **Med IV-V:** Third Certainty — that we are deceived only when our free will trespasses its limits
- **Med VI:** Final certainty — that the external world exists

Descartes' Foundationalism

- Begin by justifying with absolute certainty some basic beliefs, for example “I exist” and “I am a thinking thing”
- Next, justify other more complex beliefs, for example, “God exists”, on the basis of the basic beliefs.
- Next, justify more and more complex beliefs on the basis of beliefs previously justified.
- And so on...



Is Descartes' Foundationalism Successful as an Answer to Skepticism?

Objections to Descartes “I Exist” Argument

Grammar v. Reality

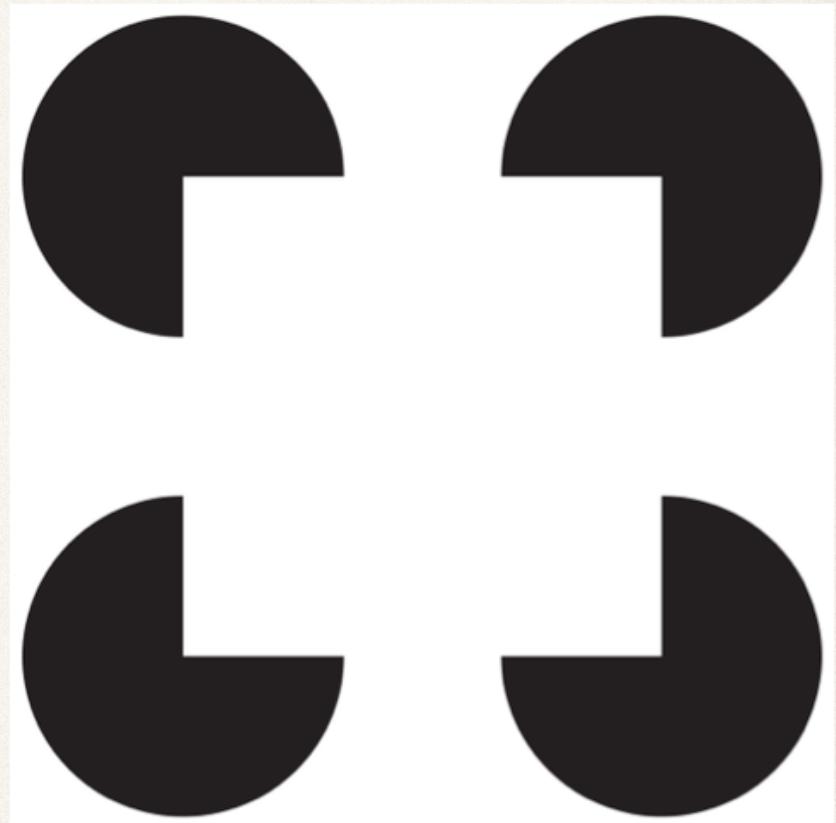
“What, from Descartes’ own point of view, he should profess to know is not ‘*I think, I exist,*’ but ‘*there is thinking/there is existence/there is something*’ . . . Descartes was justified in feeling sure that there was a certain occurrence, concerning which doubt was impossible; but he was not justified in bringing in the word ‘I’ in describing this occurrence.”

“Descartes . . . thought that there could not be . . . thinking unless someone thought. No doubt most people would still hold this view; but in fact it springs from a notion—usually unconscious—that the categories of grammar are the categories of reality.”

Bertrand Russell, An Outline of Philosophy (1927)

The “I” Isn’t Certain at All

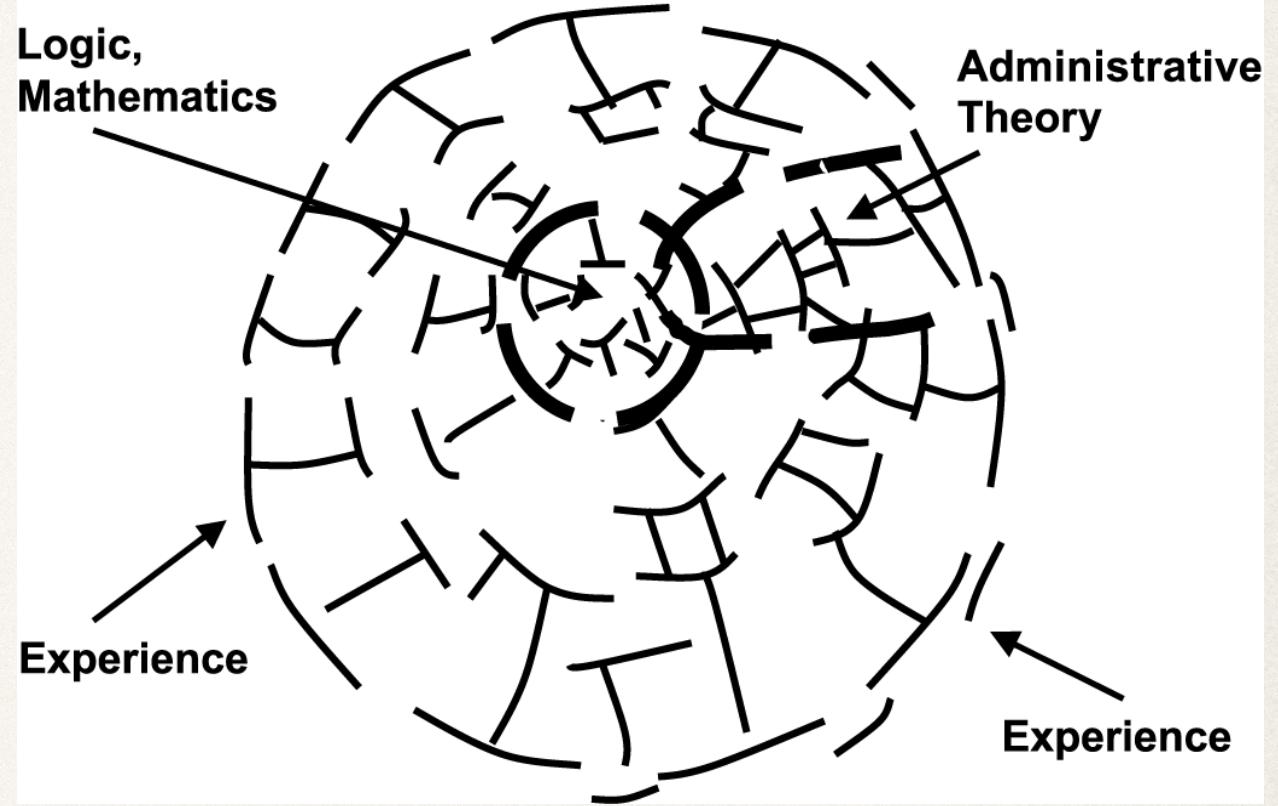
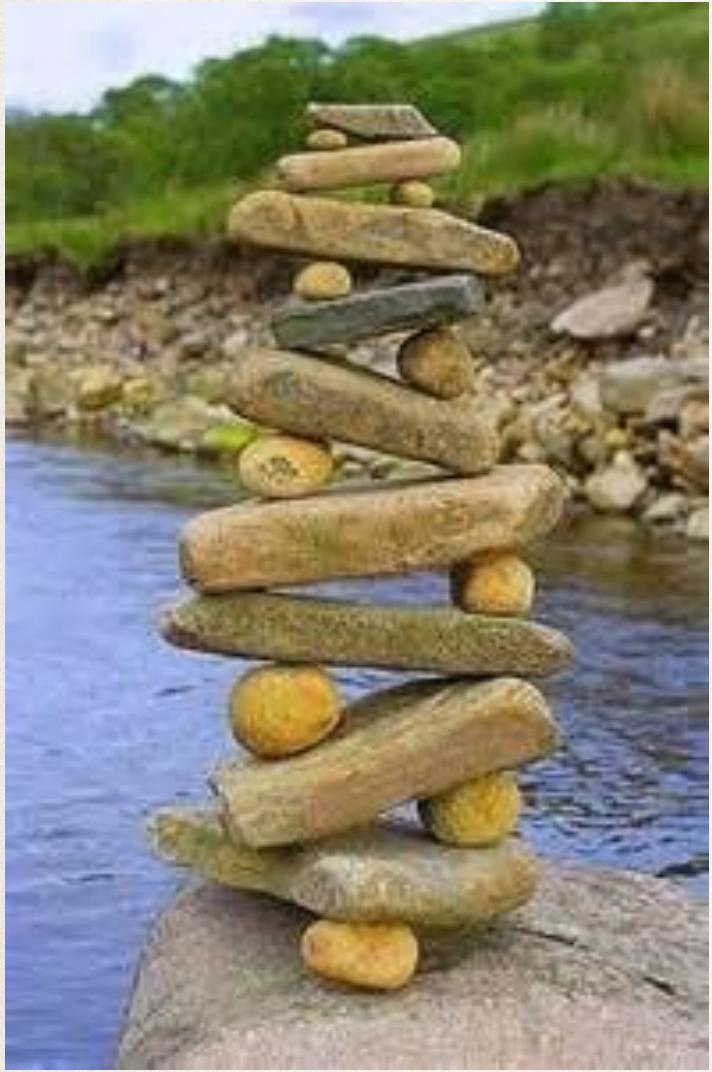
“. . . that it is I who think, that there must necessarily be something that thinks, that thinking is an activity and operation on the part of a being who is thought of as a cause, that there is an “ego” . . . In short, **the assertion ‘I think, I exist’ assumes that I compare my state at the present moment with other states of myself which I know, in order to determine what it is; thus, the assertion ‘I think, I exist’ has no immediate certainty for me.”**



Nietzsche, *Beyond Good and Evil*

Finding One Proposition Which Cannot Be Doubted Is Hard

from Foundationalism to the “Web of Beliefs”



Web of Beliefs: There is no sure / certain proposition on which everything else rests. Rather, our beliefs are connected with one another as a web, without any of them being certain. It is the “working together” of different beliefs that makes them justified.

Ludwig Wittgenstein (1889-1951)



Can One Be Wrong About Everything?

“67. Could we imagine a man who keeps on making mistakes where we regard a mistake as ruled out, and in fact never encounter one? E.g. he says he lives in such and such a place, is so and so old, comes from such and such a city, and he speaks with the same certainty (giving all the tokens of it) as I do, but he is wrong. But what is his relation to this error? What am I to suppose?

69. I should like to say: “If I am wrong about this, I have no guarantee that anything I say is true.””

—Wittgenstein, On Certainty

Wait — What Does it Mean to Be Wrong in The First Place?

“75. Would this be correct: If I merely believed wrongly that there is a table here in front of me, this might still be a mistake; but if I believe wrongly that I have seen this table, or one like it, every day for several months past, and have regularly used it, that isn’t a mistake?”

—Wittgenstein, On Certainty

There Are Some Statements For Which It Makes No Sense for Me to Be Wrong

“79. That I am a man and not a woman can be verified, but if I were to say I was a woman, and then tried to explain the error by saying I hadn’t checked the statement, the explanation would not be accepted.

80. The truth of my statements is the test of my understanding of these statements.

81. That is to say: if I make certain false statements, it becomes uncertain whether I understand them.”

—Wittgenstein, On Certainty

Certainty Is Needed for Doubt

“114. If you are not certain of any fact, you cannot be certain of the meaning of your words either.

115. If you tried to doubt everything, you would not get as far as doubting anything. The game of doubting itself presupposes certainty.”

—Wittgenstein, On Certainty

Understanding, Meaning and Doubting

“26. I am not more certain of the meaning of my words than I am of certain judgments. Can I doubt that this colour is called “blue”?

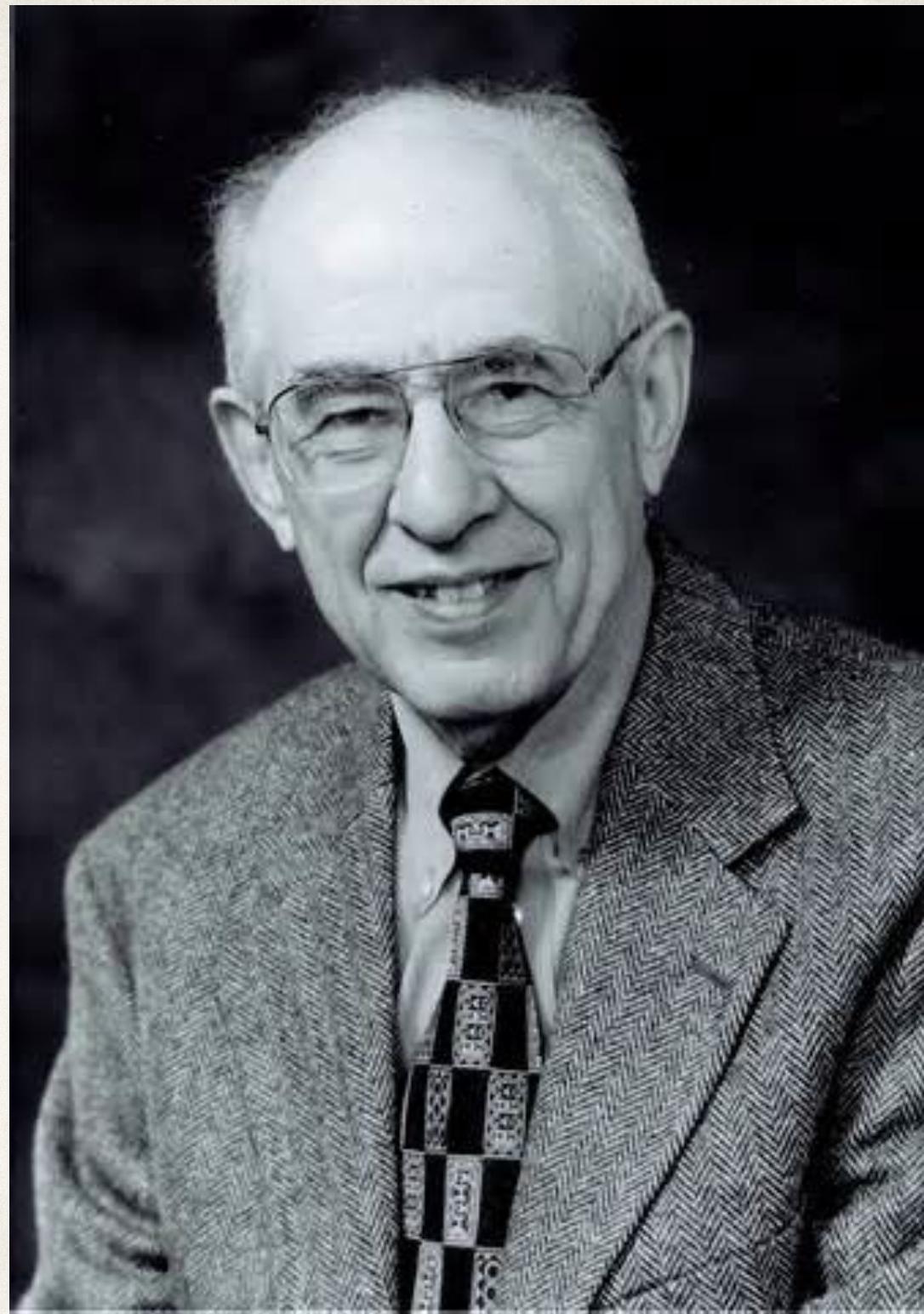
(My) doubts form a system.

127. For how do I know that someone is in doubt? How do I know that he uses the words “I doubt it” as I do?
”

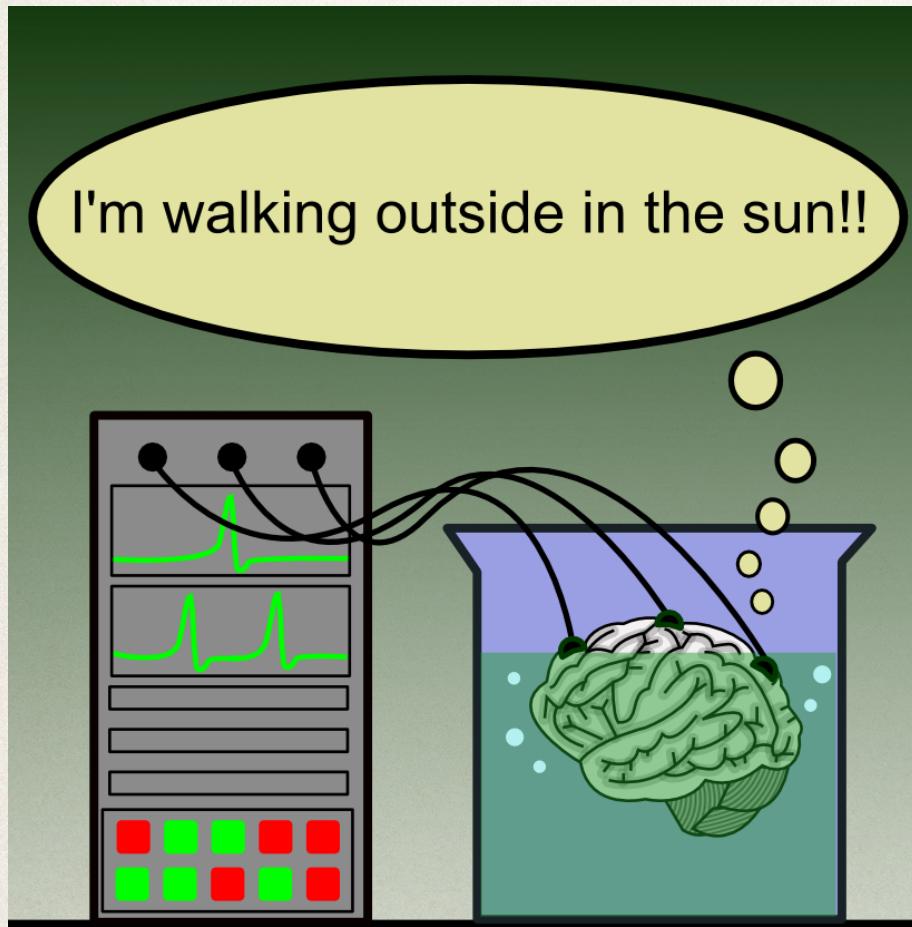
–Wittgenstein, On Certainty

Can You Meaningfully Assert That You are a Brain in a Vat?

Hilary Putnam (1926-)



Suppose We Were Brains in a Vat



- If we were brains a vat, the words we use to communicate what we mean would not mean what we they ordinarily mean.
- In a world populated with brains in a vat, there would be no tables, ice creams, the sun, etc. There would be electrochemical stimuli that make us believe that there are such things.
- So, if we were just brains in a vat, words such as “table”, “ice cream”, “sun” etc. would mean, or refer to, the electrochemical stimuli created by a supercomputer.

(A Variation on) Putnam's Brain in a Vat Argument

1. If I were a brain in a vat, the words “brain” and “vat” would not refer to what they ordinarily refer to. They would refer to electrochemical stimuli of the brain.
2. If I were a brain in a vat, the sentence “I am a brain in a vat” would have a different meaning from its ordinary meaning.
3. If I were a brain in a vat and asserted “I am a brain in a vat”, I would not be able to assert what we ordinarily intend by the sentence “I am a brain in a vat”.
4. So, if I were a brain in a vat, I couldn’t truly say I was a brain in a vat.

The Groundless of Our Beliefs

“Giving grounds, however, justifying the evidence, comes to an end; but the end is not certain propositions’ striking us immediately as true, i.e. it is not a kind of seeing on our part; it is our acting.

205. If the true is what is grounded, then the ground is not true, not yet false.”

—Wittgenstein, On Certainty

