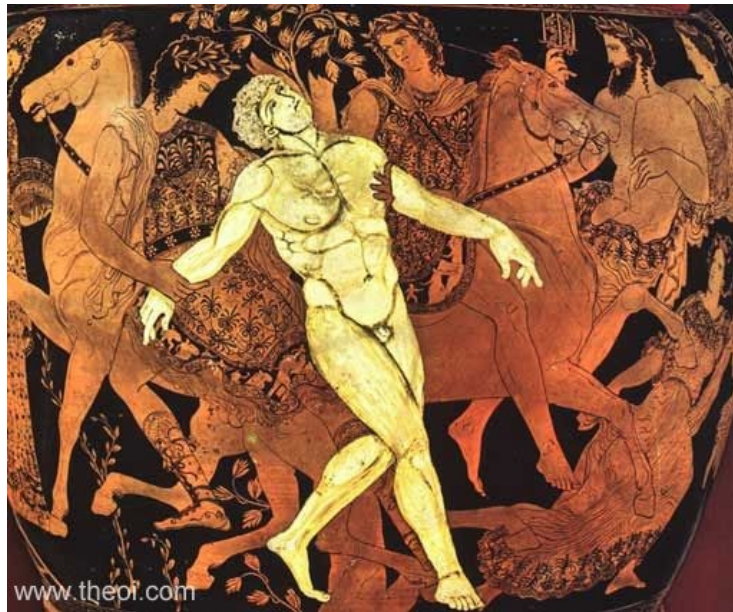# The Philosophy of Artificial Intelligence

George Konidaris
gdk@cs.brown.edu

Fall 2021

AI: The Very Idea

For as long as people have made machines, they have wondered whether machines could be made intelligent.
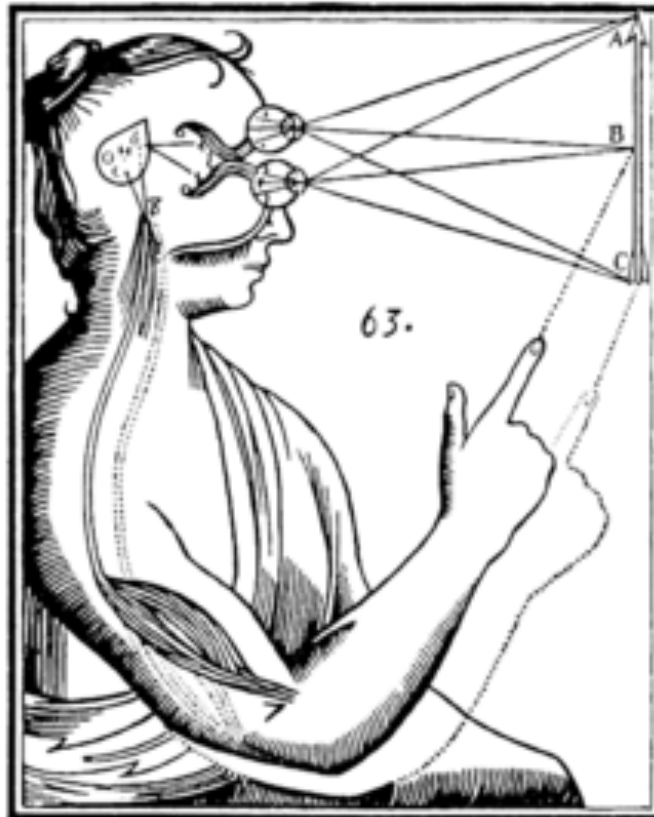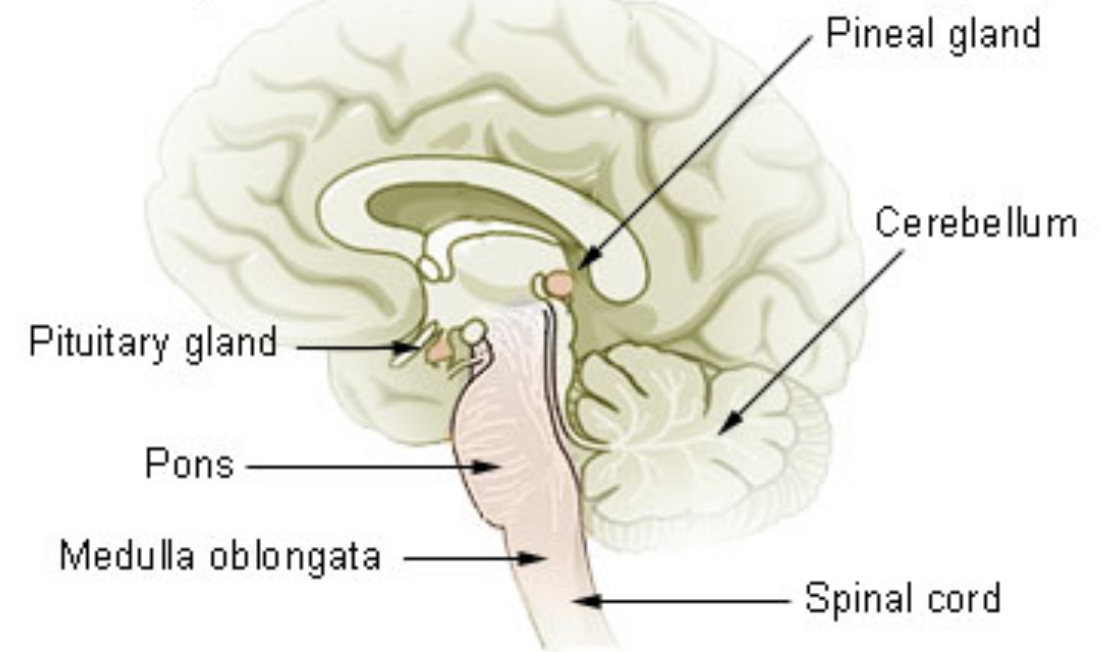

(pictures: Wikipedia)

The Mind-Body Problem

What Are Minds Made Of?

Dualism

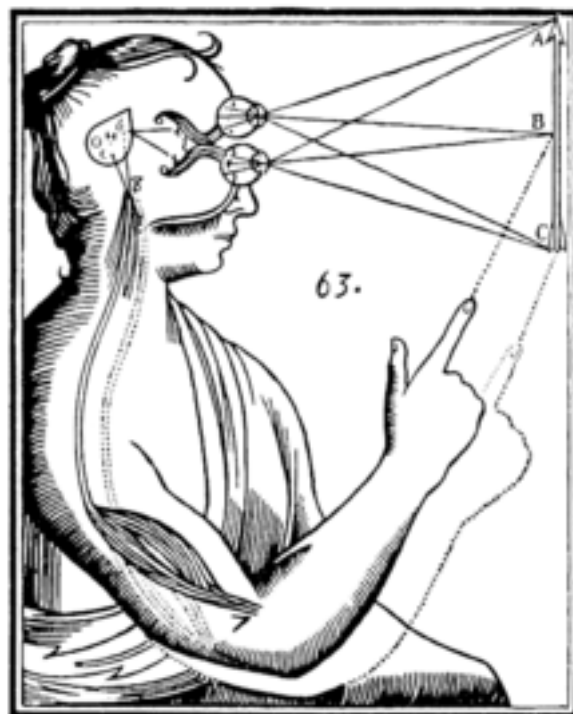- Mind and body are two different things
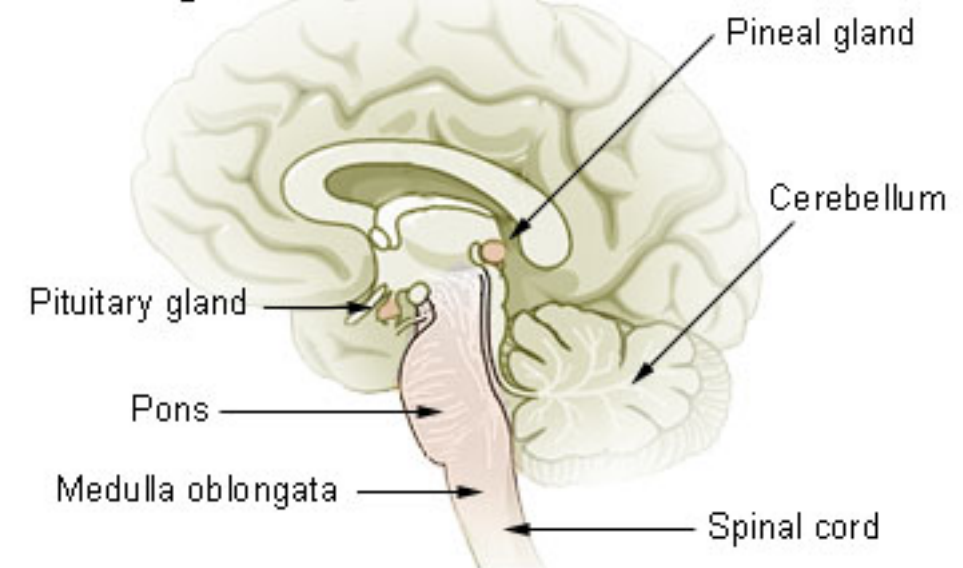- Mind non-physical

What Are Minds Made Of?

Materialism

- Only material objects exist
- Mental states are physical states

"Brains cause minds"

- Because of what they are: *Biological naturalism*
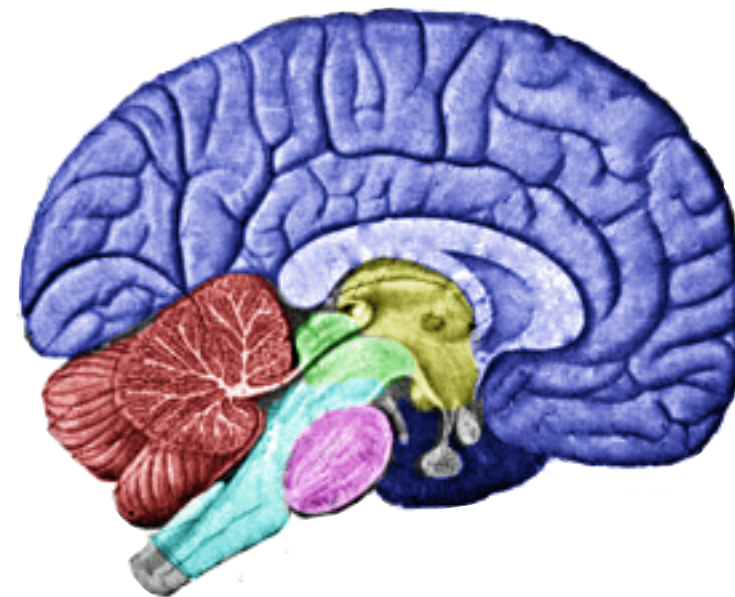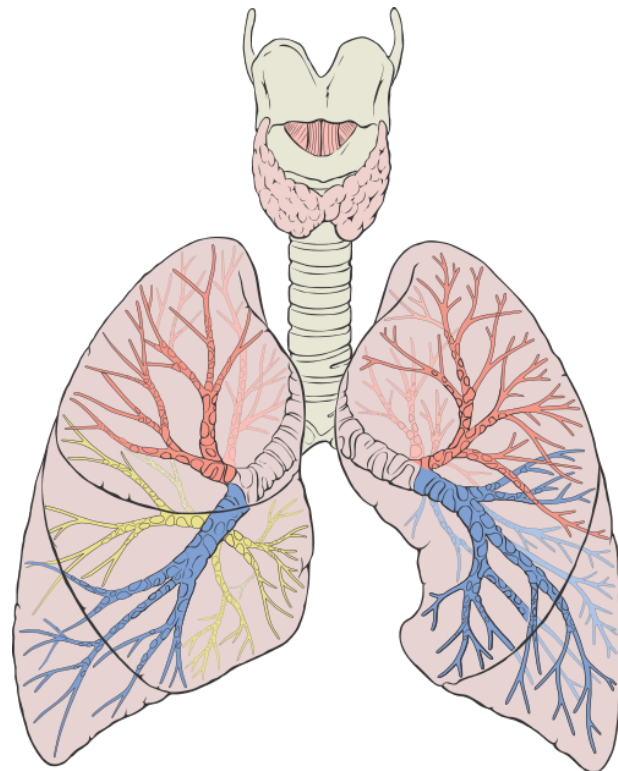- Because of what they do: *Functionalism*

Computation

What is computation?

Information processing process.

- Symbols and rules for operating on symbols.
- The symbols and the rules matter.
- The physical substrate doesn't matter.

Core AI Hypothesis

"The brain is a computer."

=

(picture: Wikipedia)

The Weak AI Hypothesis

Weak AI Hypothesis:

- A computer program can be built that acts as intelligently as a human.

- This is about *behavior*.
- It makes no claim about *minds* or even *thought.*

- Not even about practicality: asks *whether it can be done in principle*.
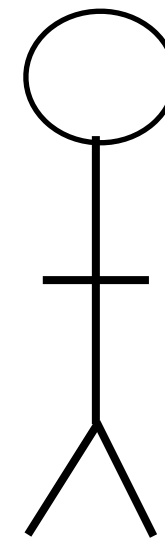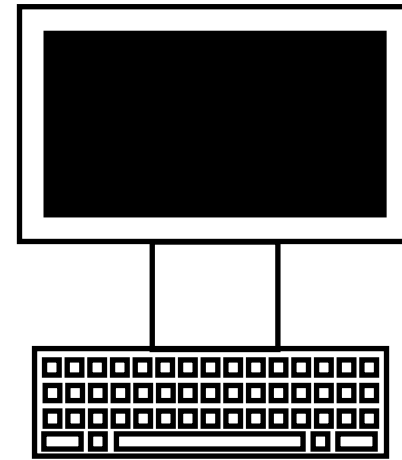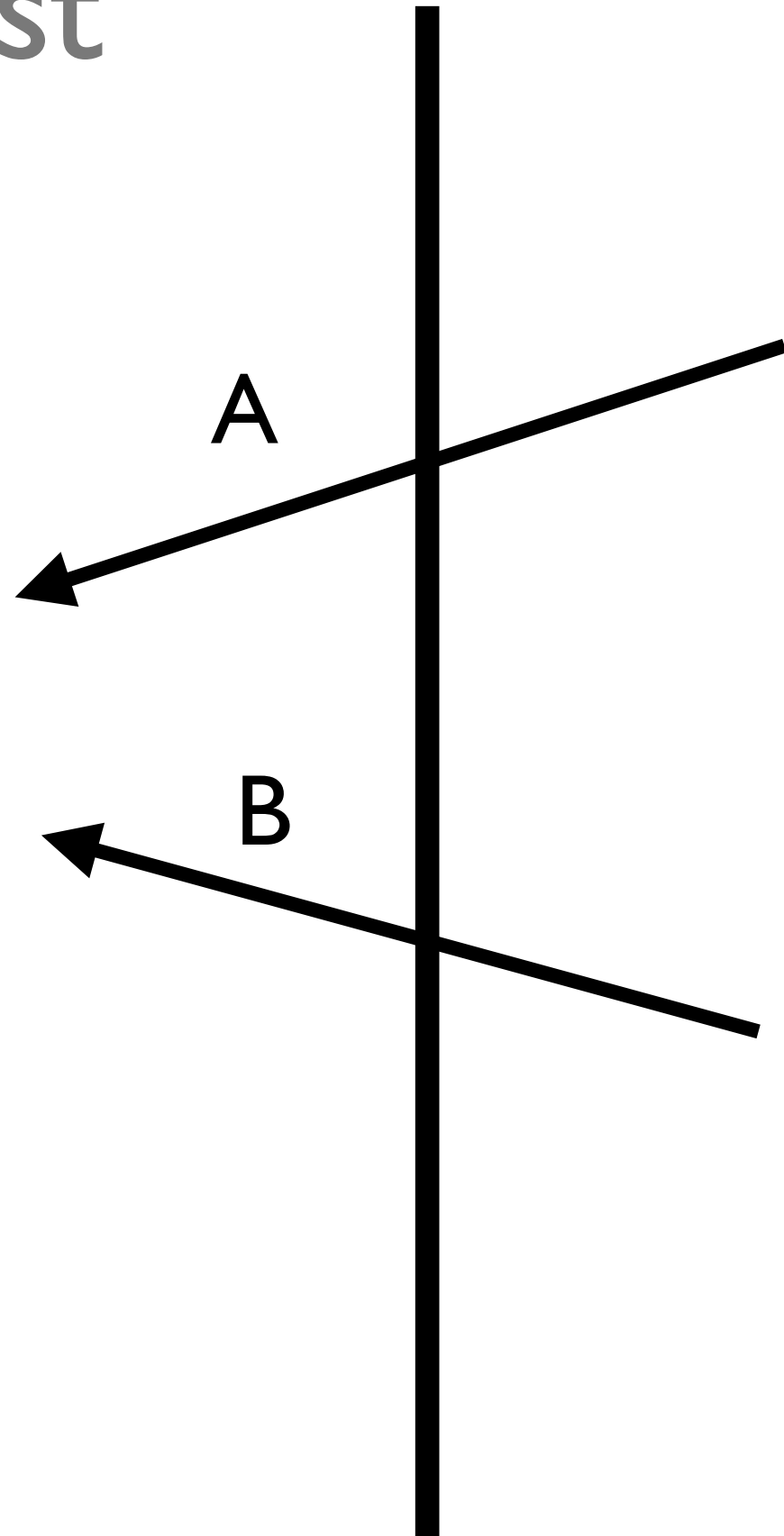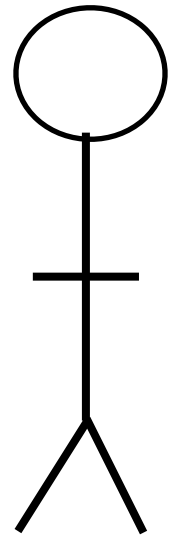
c.f. rational agent.

Turing

Computing machinery and intelligence. *Mind*, October 1950.

"Can machines think?"

(picture: Wikipedia)

Turing Test

A

B

Objections

The Theological Objection

The Mathematical Objection

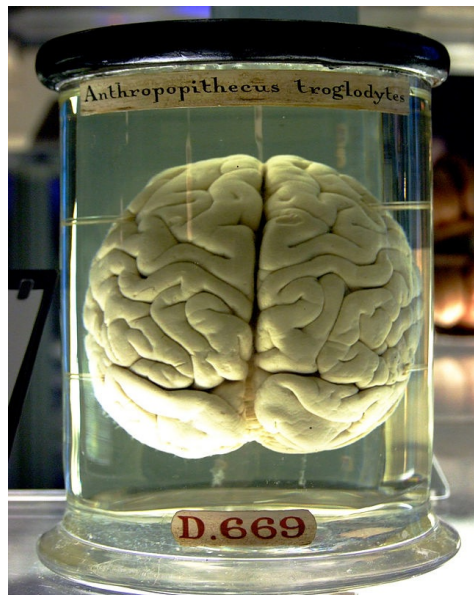The Argument from Consciousness

The Argument from Various Disabilities

The Strong AI Hypothesis

Strong AI Hypothesis:

- A machine that behaves as intelligently as a human has a mind and is thinking.

- Takes the Weak AI hypothesis as a given.
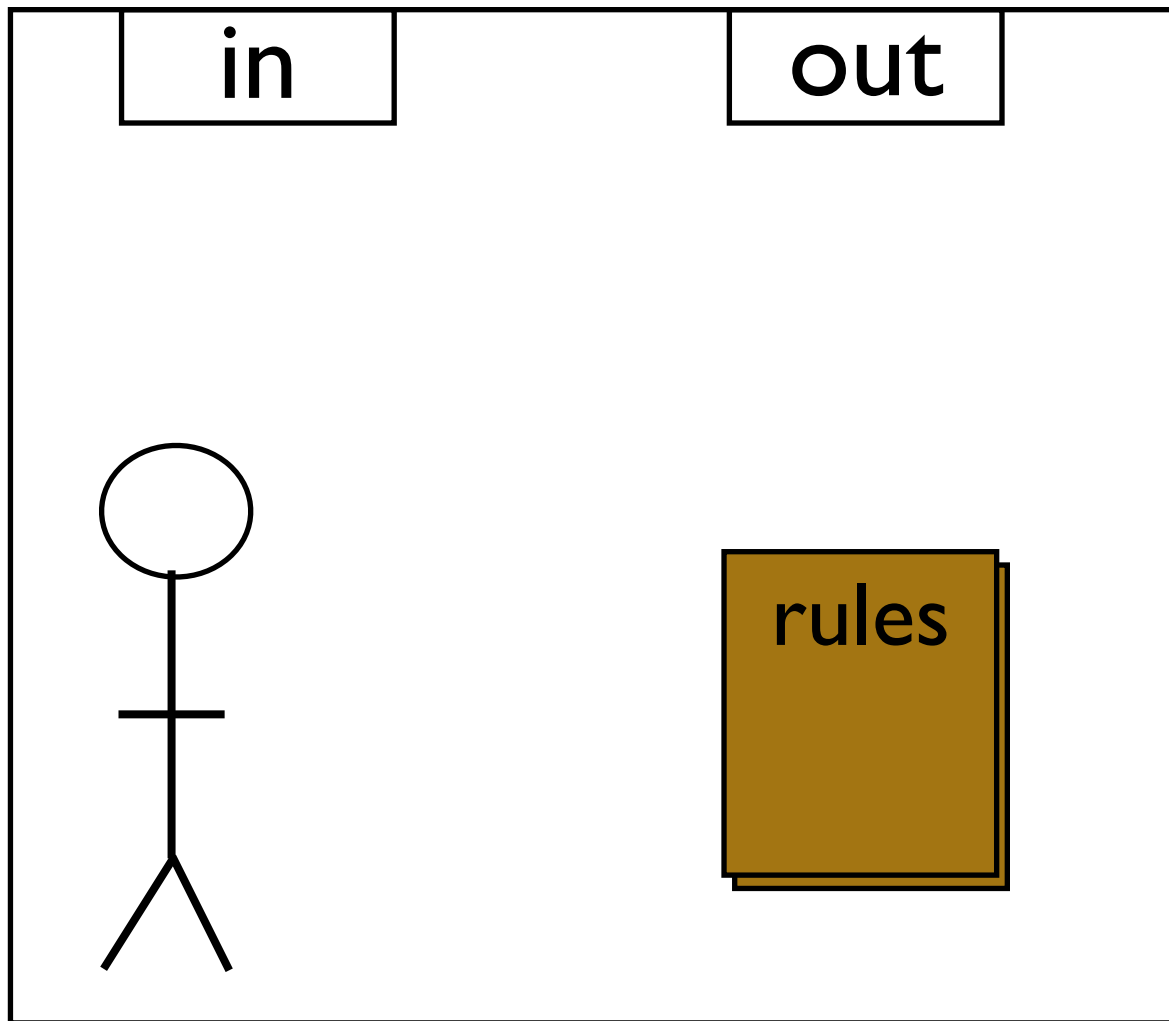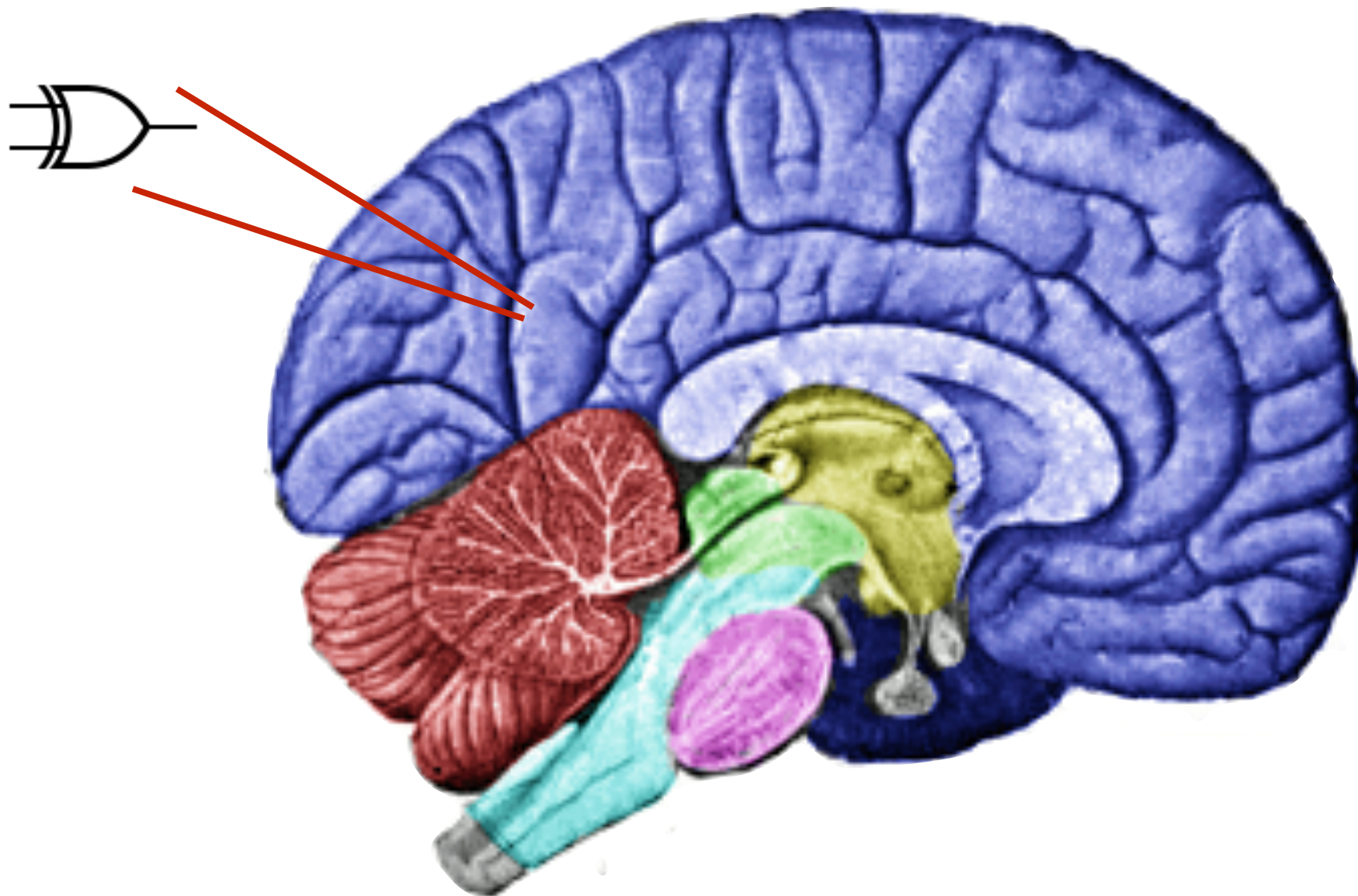- This is a claim about *minds* and *thought*.
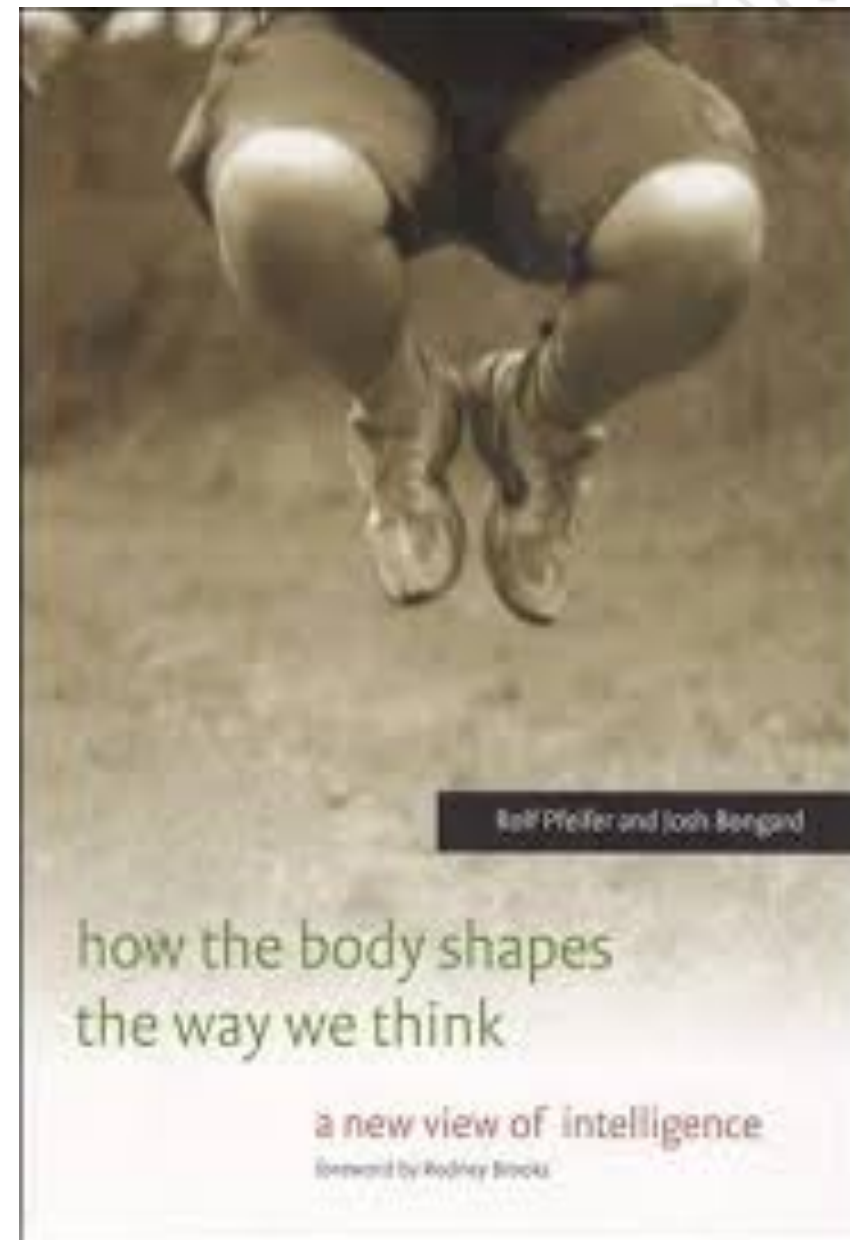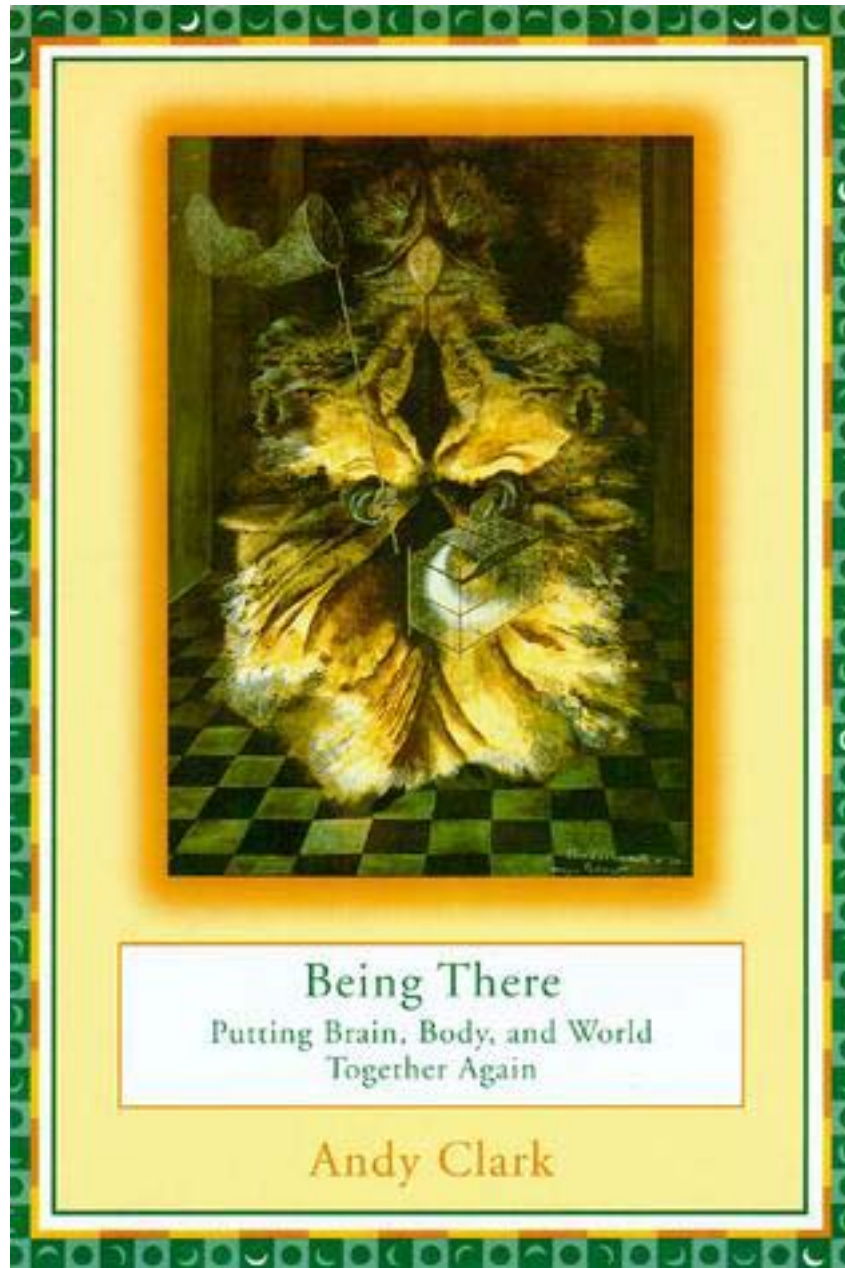
The Chinese Room

Where's the mind / understanding / consciousness?

The Brain Replacement Experiment

Embodied Intelligence

Being There
Putting Brain, Body, and World Together Again
Andy Clark

Rolf Pfeifer and Josh Bongard

how the body shapes the way we think

a new view of intelligence
foreword by Rodney Brooks

Collective Intelligence
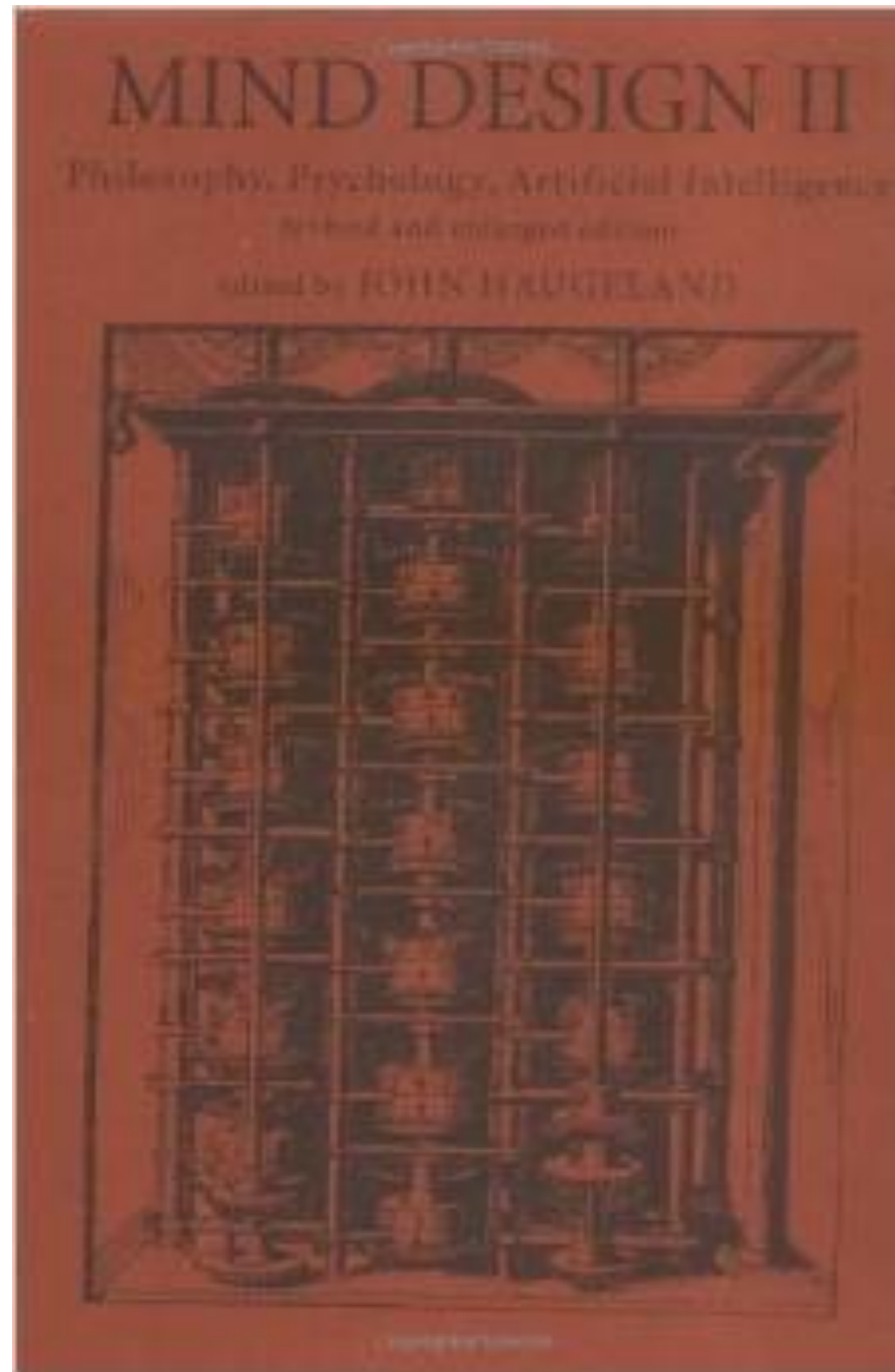
Questions

What do we mean by:

- Mind
- Consciousness
- Thought
- Intelligence

How can we explain or define subjective experience?
Is it susceptible to objective analysis or definition?

Can it be reproduced by a computer program?

Highly Recommended (but dated)

Highly Recommended (but dated)