

The “**HARD**” problem of consciousness

Chalmers

The explanatory **GAP**

Levine

To explain the “raw feel” of experience?

Nagel: “Something it is like to be”



● THEATRE

The
Hard
Problem
a new play
by Tom Stoppard

***THE HARD PROBLEM:
DODGING THE
BIG QUESTIONS***

PATRICK MARMION
WRITER AND CRITIC

Tom Stoppard's latest play is an insubstantial pageant of artful materialism.



Leading neuroscientists and Buddhists agree: “Consciousness is everywhere”

<http://www.lionsroar.com/christof-koch-unites-buddhist-neuroscience-universal-nature-mind/#>

The “HARD” problem of consciousness

Chalmers

The explanatory GAP

Levine

“What conceivable connection exists between definite movements of definite atoms in my brain on the one hand, and on the other hand such primordial, indefinable, undeniable facts as these: I feel pain or pleasure; I taste something sweet, or smell a rose, or hear an organ, or see something red, and the certainty that immediately follows: Therefore I am?”.

Emil Du Bois-Reymond, “The Limits of Science” keynote address to the Congress of German Scientists and Physicians in Leipzig (14 August 1872)



The “hard problem” follows a simple syllogism:

Major premise: *Science advances **third** person descriptions of reality*

Minor premise: *Consciousness is a **first** person experience*

therefore:

*Consciousness **cannot** be described by science.*

The “hard problem” follows a simple syllogism:

Major premise: *Science advances **third** person descriptions of reality*

Minor premise: *Consciousness is a **first** person experience*

therefore:

*Consciousness **cannot** be described by science.*

This is why panpsychism looks like the only alternative

**Science appears
(for now) to have
eliminated Free Will**

4 The unconscious:
We do not - necessarily -
consciously “know” what moves
us

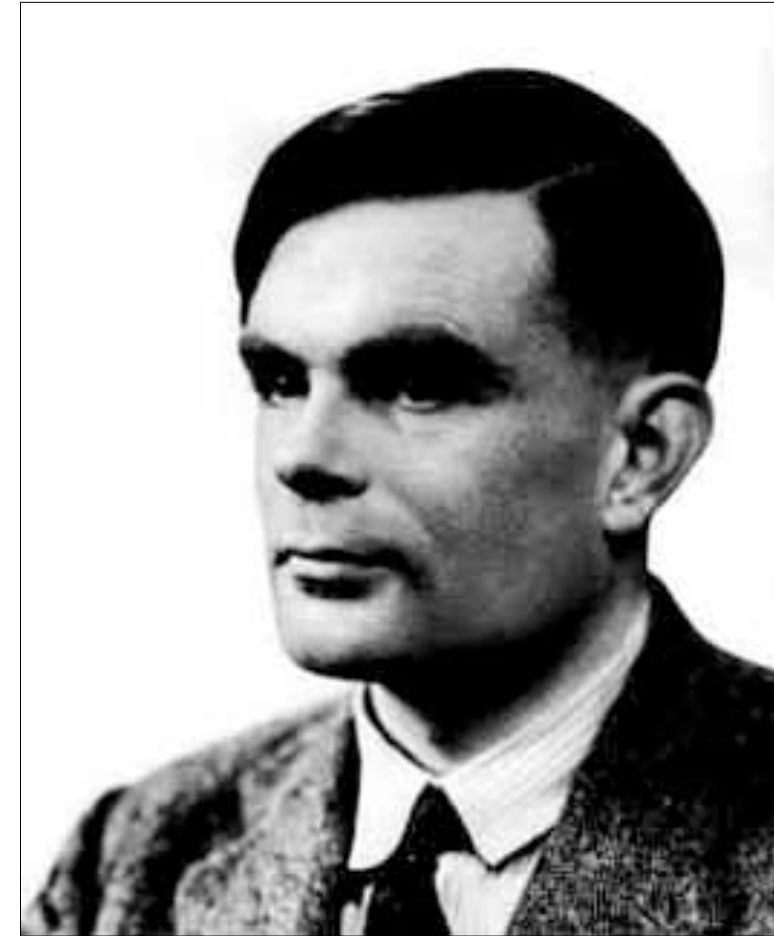
Computing machinery

Breaking the enigma code

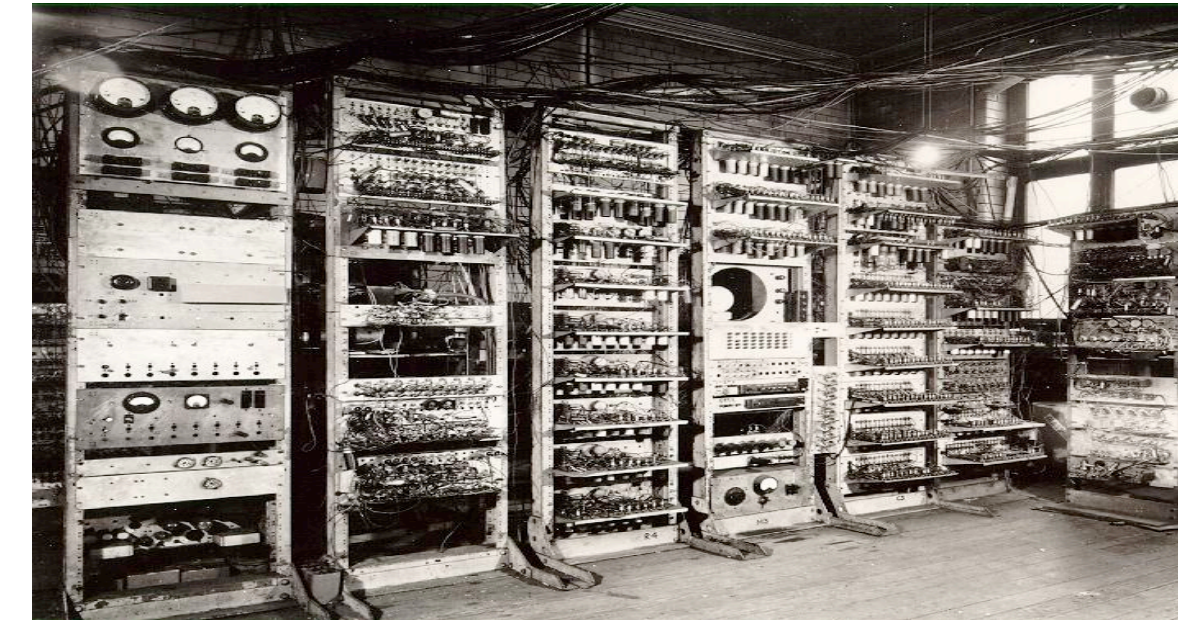


Enigma: 1918 Arthur Scherbius

CSIM



Alan M. Turing (1912–1954)

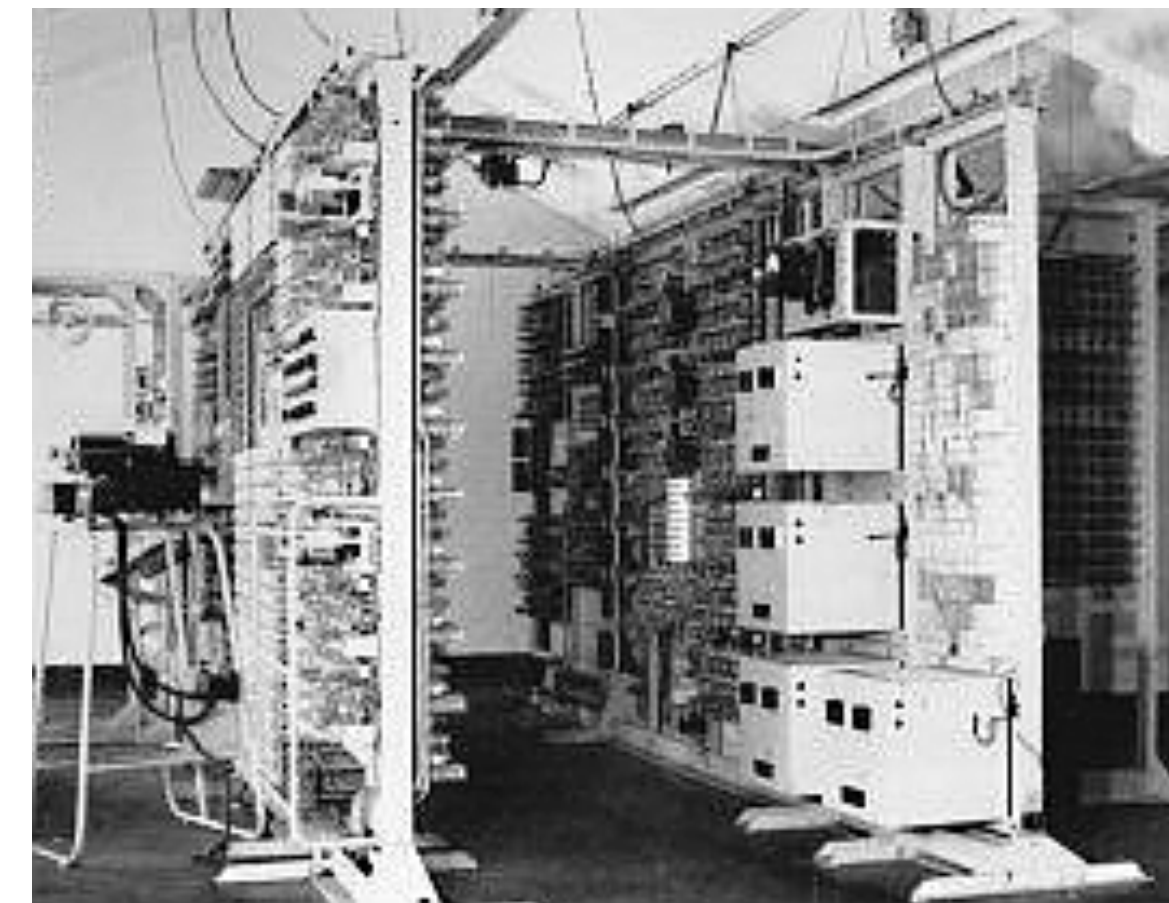


Manchester Mark 1



Bletchley park

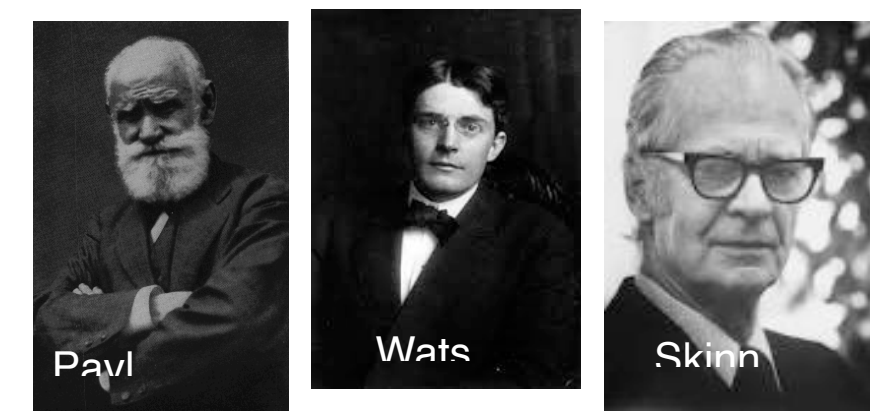
specs-lab.com



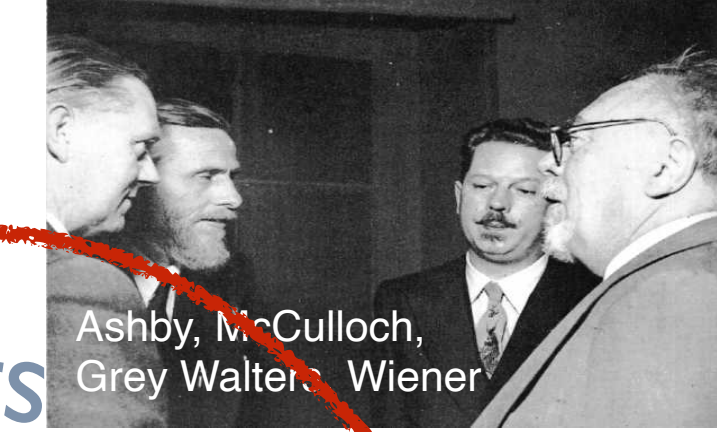
“Bombs”

Paul Verschure

Mind/Brain/Behavior Cycle



Behaviorism



Cybernetics



Behavior;
the *empty organism*

Control;
embodied action

1945

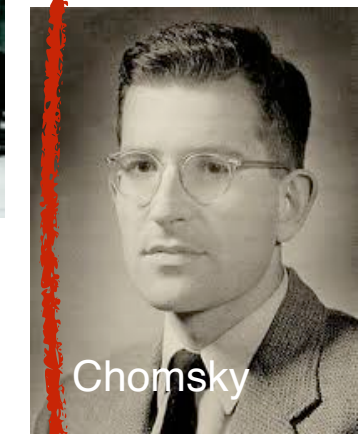


Structuralism

1915

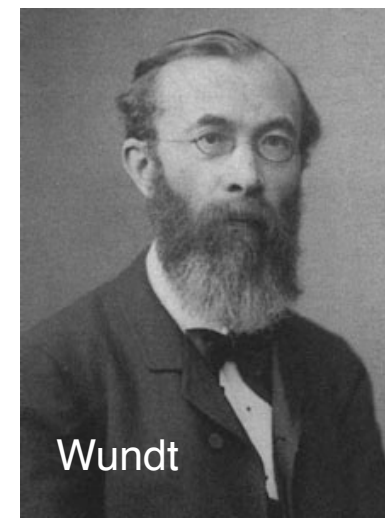


1950



Cognitivism

Reason;
the *disembodied mind*



Consciousness

1880

Metaphorical Biology;
the *mindless body*



1850

1990



NOW

1990

Connectionism

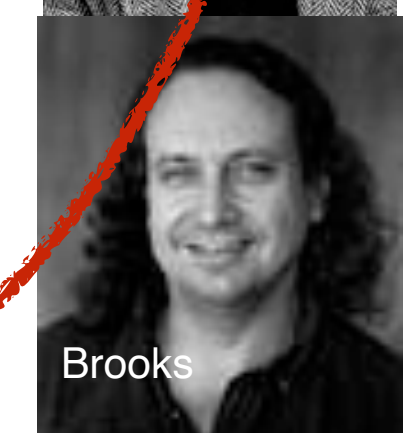
Brain

New AI

Artificial

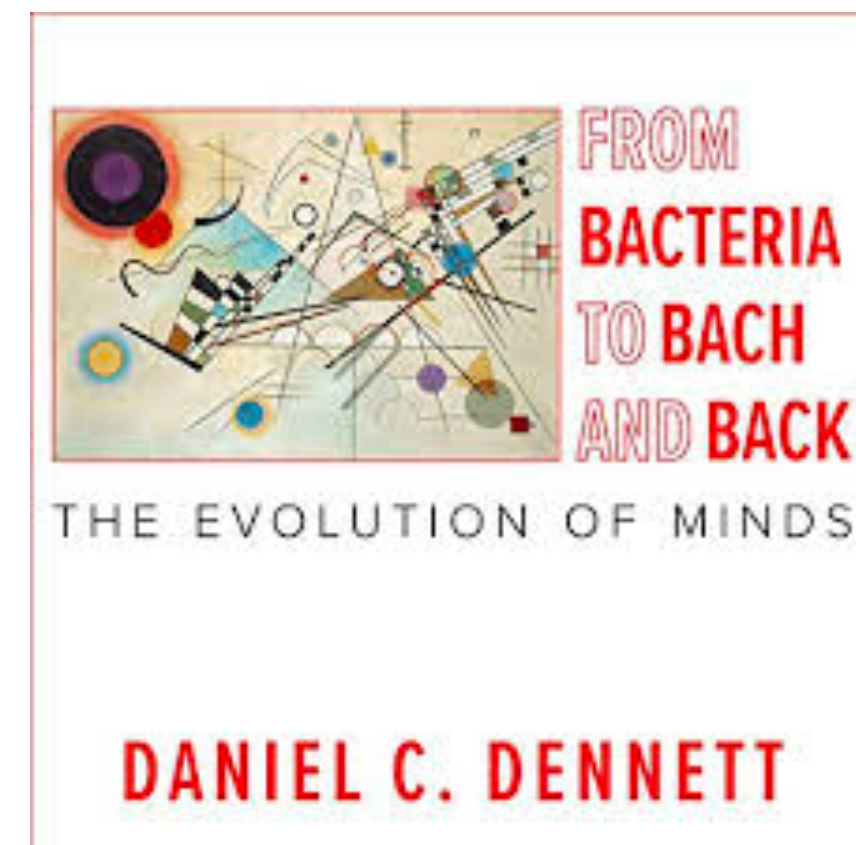
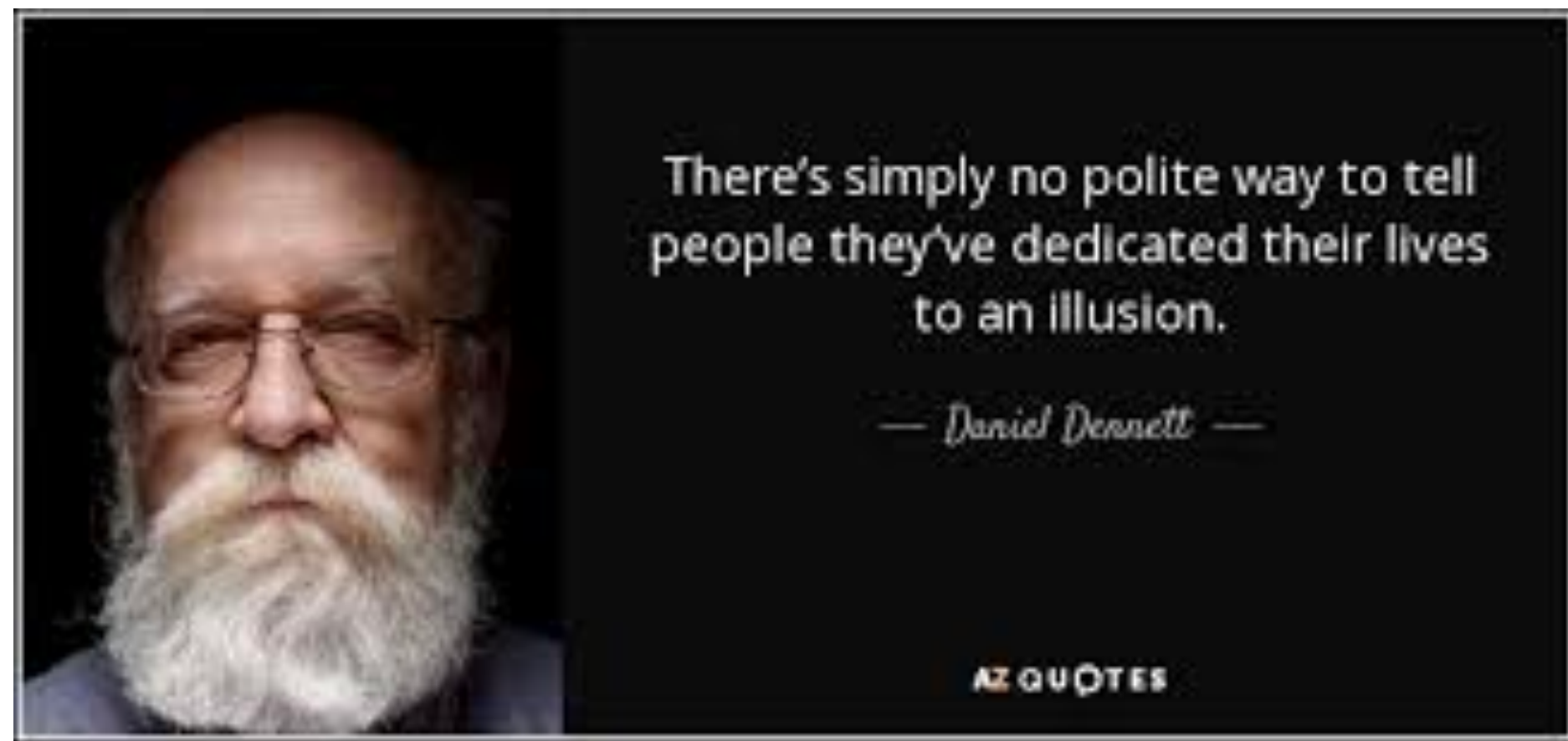
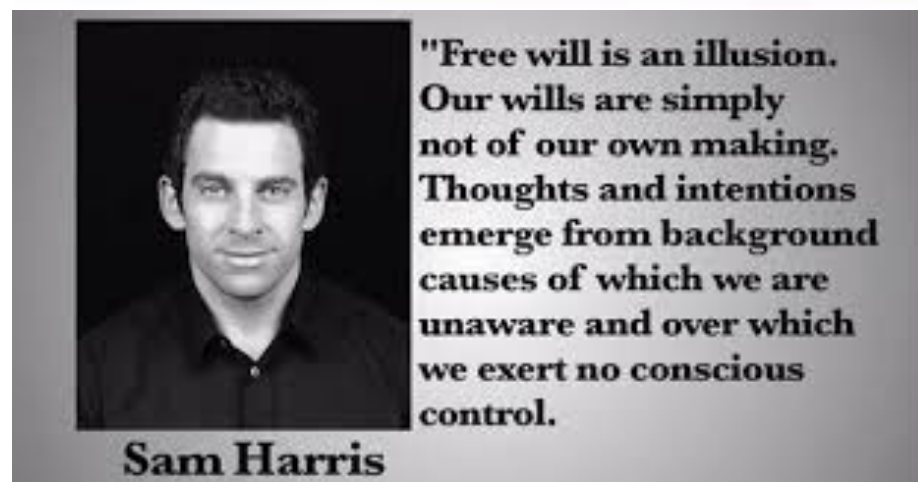
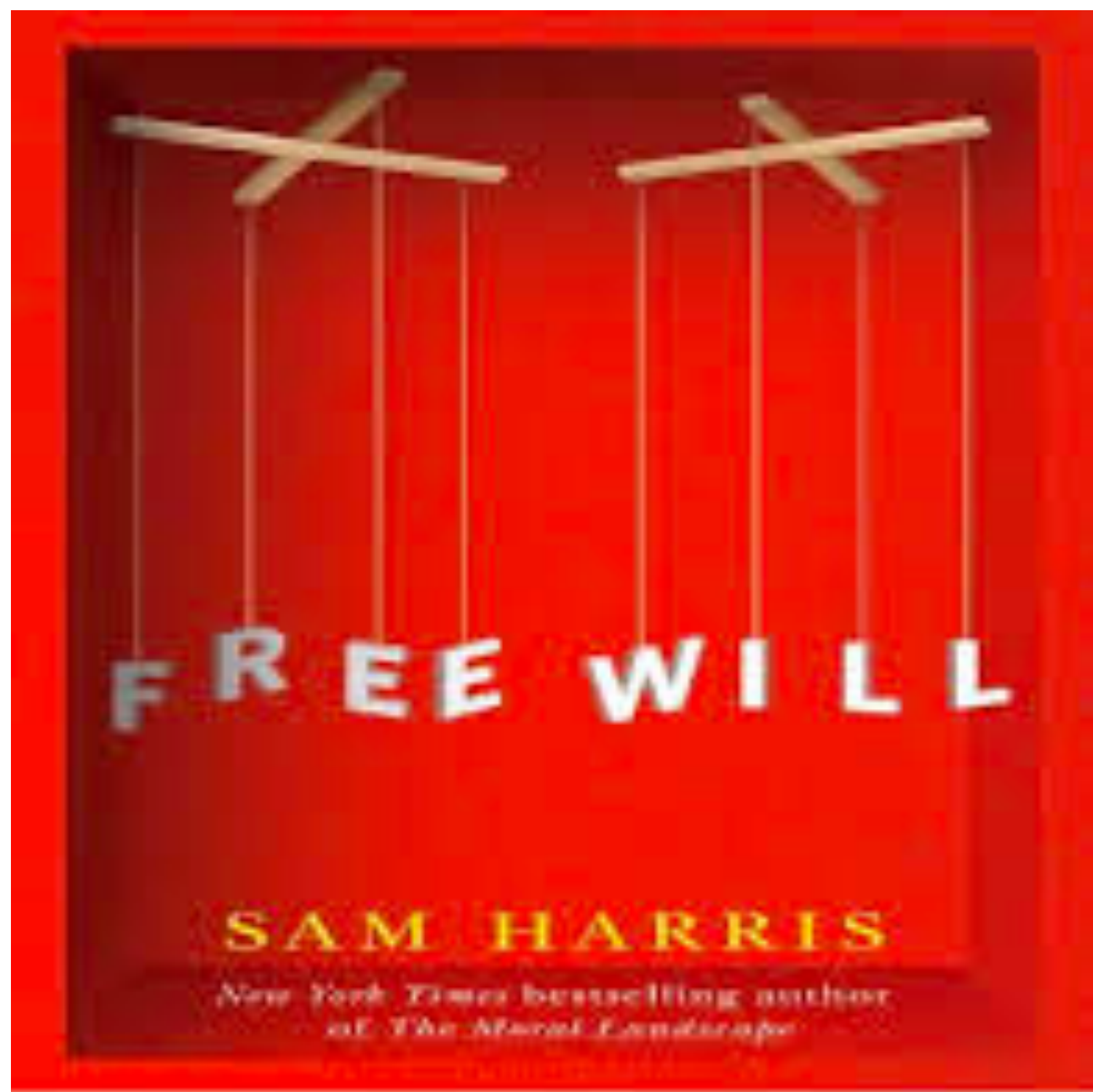


Big Data
DL/ML



5 We are not the only information processing systems in the universe

Evolution has no goal





Science

Technology

Humanities

Arts

Science

Technology

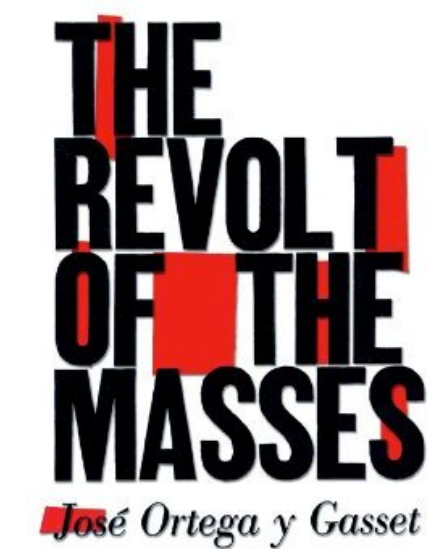
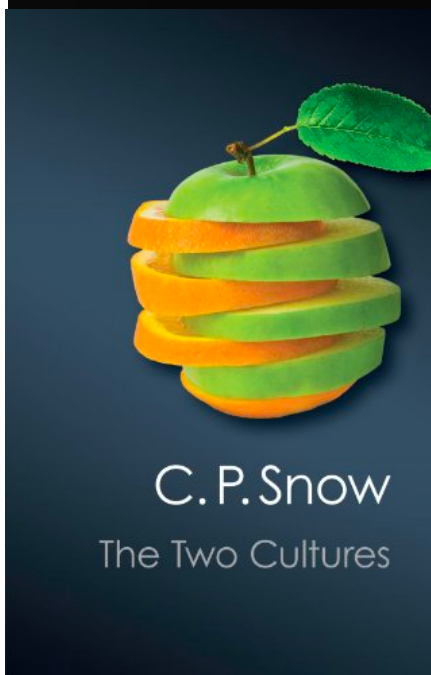
The Science War

Humanities

Arts

2 cultures

Learned Ignorati



A cultural challenge: “The Barbarism of Specialization” or Jose Ortega Y Gasset's Condemnation of Learned Ignorance (1930)

Physical and biological sciences shows increasing specialisation losing contact with other branches of science, with [the] integral interpretation of the universe....

For the purpose of innumerable investigations it is possible to divide science into small sections, to enclose oneself in one of these, and to leave out of consideration all of the rest.

The solidity and exactitude of the methods allow for this temporary but quite real disarticulation of knowledge (scientism)

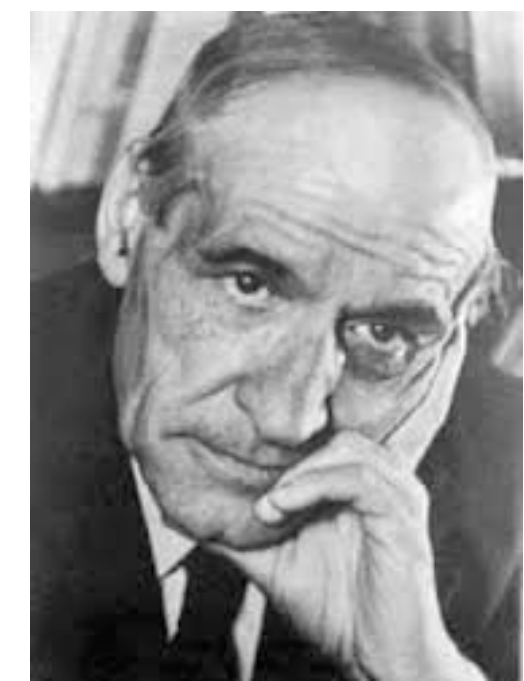
But this creates an extraordinarily strange type of man. The investigator who has discovered a new fact of nature must necessarily experience a feeling of power and self-assurance. With a certain apparent justice he will look upon himself as "a man who knows." ...

The specialist "knows" very well his own tiny corner of the universe; he is radically ignorant of all the rest.

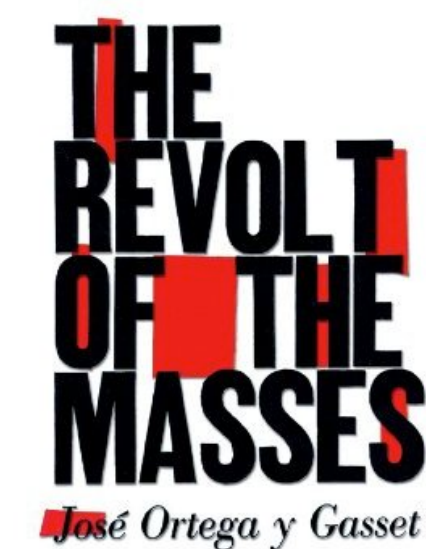
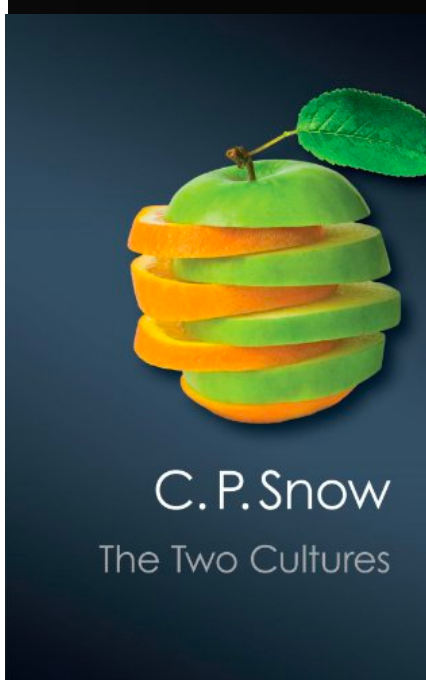
He a learned ignoramus

And such in fact is the behavior of the specialist. In politics, in art, in social usages, in the other sciences, he will adopt the attitude of primitive, ignorant man; but he will adopt them forcefully and with self-sufficiency, and will not admit of—and this is the paradox—specialists in those matters.... [T]his very inner feeling of dominance and worth will induce him to wish to predominate outside his specialty.

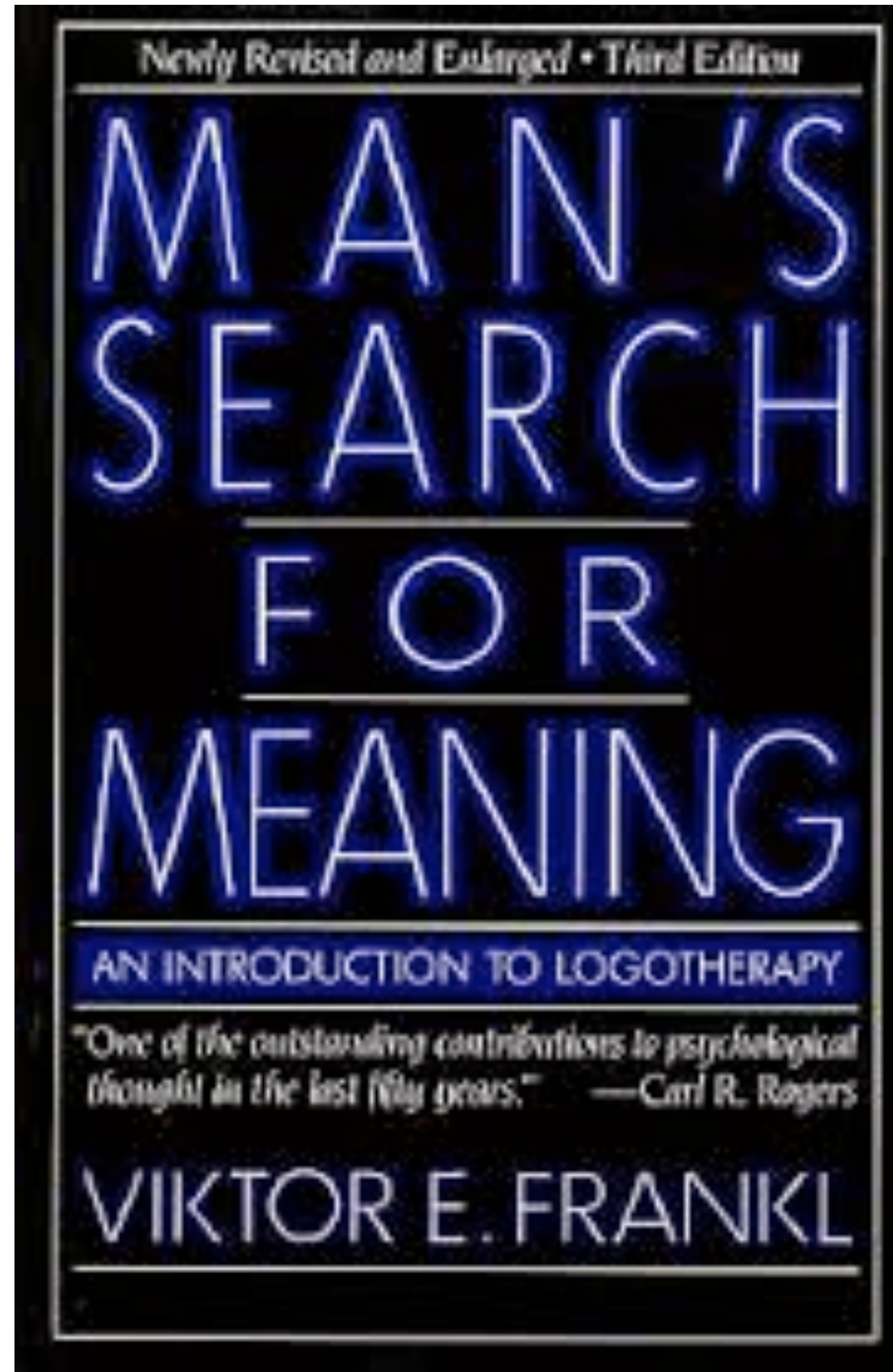
Jose Ortega y Gasset, *The Revolt of the Masses* (1930; Norton, 1957).



How to overcome the conflict between science & humanities?

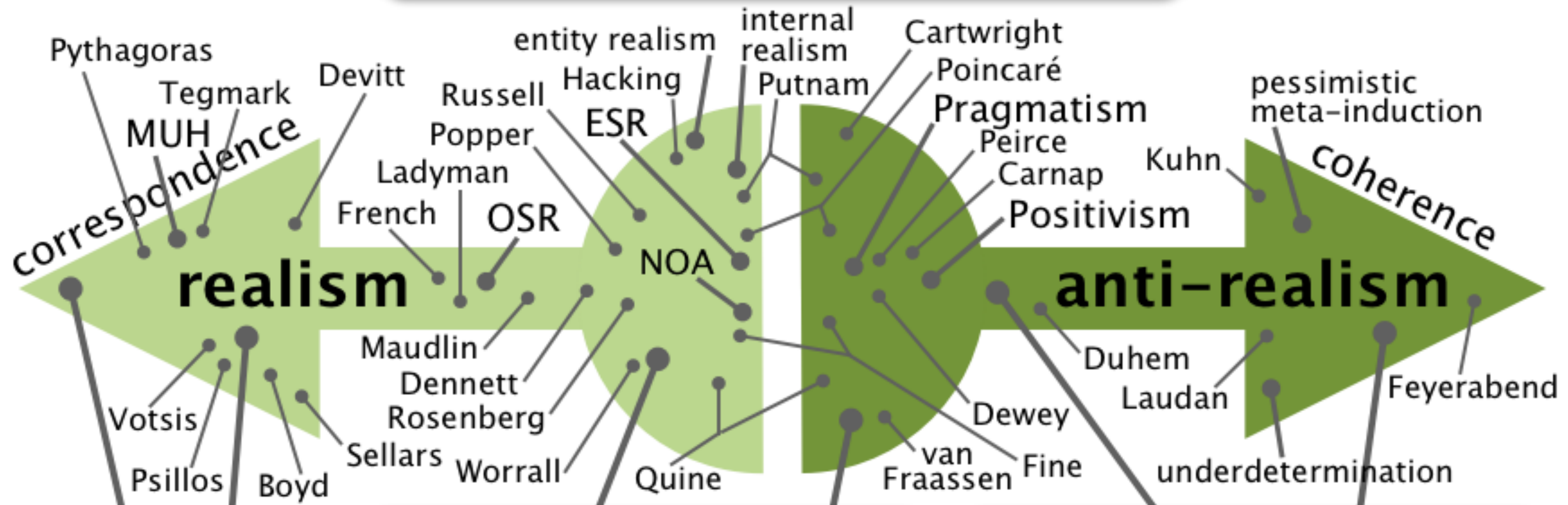


Minds seek *meaning* (not *bits*)



Viktor Frankl
1905-1997

philosophy of science



Naive Realism

The world I see is real. What are you all arguing about?

Structural Realism

Science has identified real patterns, relationships, and structures (at least within a regime) in nature.

Instrumentalism

Theoretical concepts may have use in predicting observations, but we have no ontological commitments to them.

Scientific Realism

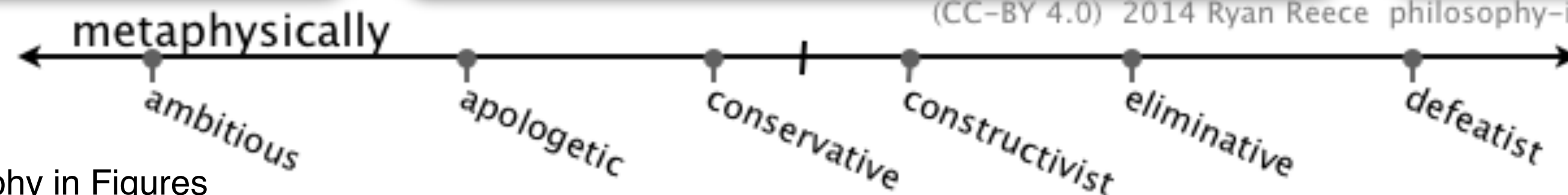
Science makes real progress in describing real features of the world.

Constructive Empiricism

Science aims to give us theories which are empirically adequate, but does not justify metaphysical claims about reality.

Relativism

Social constructivism. Epistemological anarchism.



(CC-BY 4.0) 2014 Ryan Reece philosophy-in-figures.tumblr.com

Danger of *Scientism*

In *Counter-Revolution*:

Physical sciences: the persistent effort of modern Science has been to get down to "objective facts," to cease studying what men thought about nature or regard concepts as true images of the real world, and, above all, to discard all theories which pretended to explain phenomena by imputing to them a directing mind; its main task became to revise and reconstruct the concepts formed from ordinary experience on the basis of a systematic testing of the phenomena, so as to recognize the particular as an instance of a general rule. (II: The Problem and the Method of the Natural Sciences)

Humanities: The social sciences in the narrower sense, i.e., those which used to be described as the moral sciences, are concerned with man's conscious actions where a person can be said to choose between various courses open to him, and here the situation is essentially different. The external stimulus which causes or occasions such actions can of course also be defined in purely physical terms. But if we tried to do so for the purposes of explaining human action, we would reduce ourselves to less than we know about the situation. (III: The Subjective Character of the Data of the Social Sciences)

Scientism = dogmatically applying the scientific method to phenomena that are not suitable for it



Friedrich von Hayek
1899-1992

The Counter-Revolution of Science - 1952

6 Meaning vs Matter - Science vs Existentialism

The 5 conceptual revolutions that put humans in their place

1 Humans (and their Gods) do
not constitute the centre of the
universe/reality

2 Mind in Reality: res cogitans vs res extensa

3 Humans are animals

4 The unconscious:
We do not - necessarily -
consciously “know” what moves
us

5 We are not the only information processing systems in the universe

A grand, ornate library interior. The room features high ceilings with intricate painted decorations, including a large central dome. The walls are lined with tall, dark wood bookshelves filled with books. The floor is a checkered tile pattern. In the foreground, there are several globes on ornate stands, a large decorative clock, and a large, ornate metal structure. The lighting is warm and focused, highlighting the architectural details.

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About the new approach
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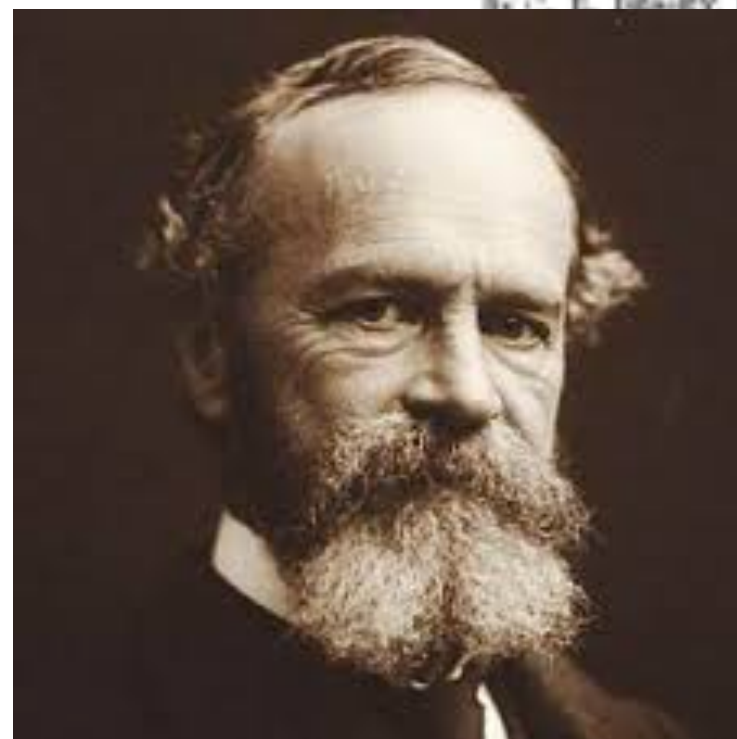
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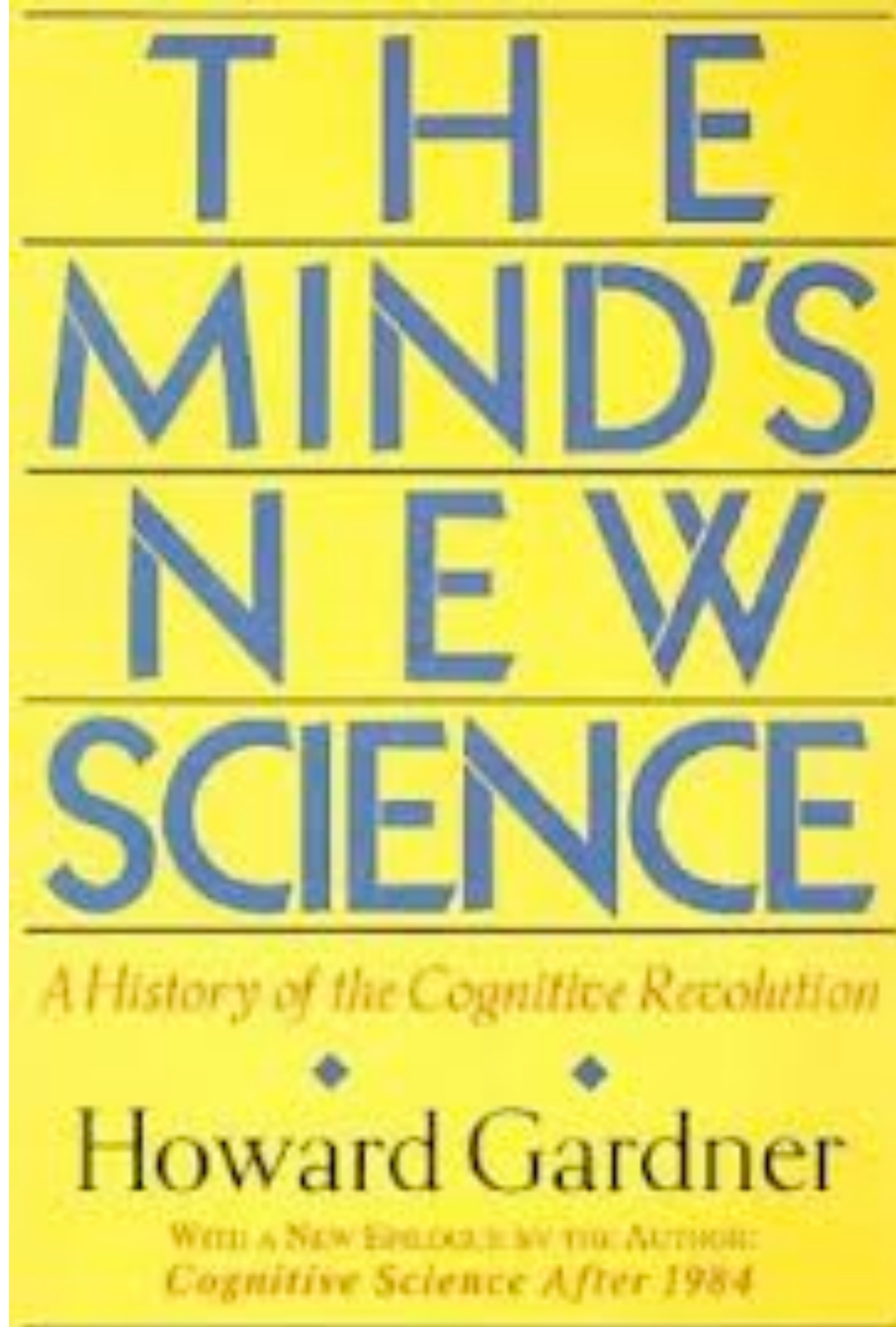
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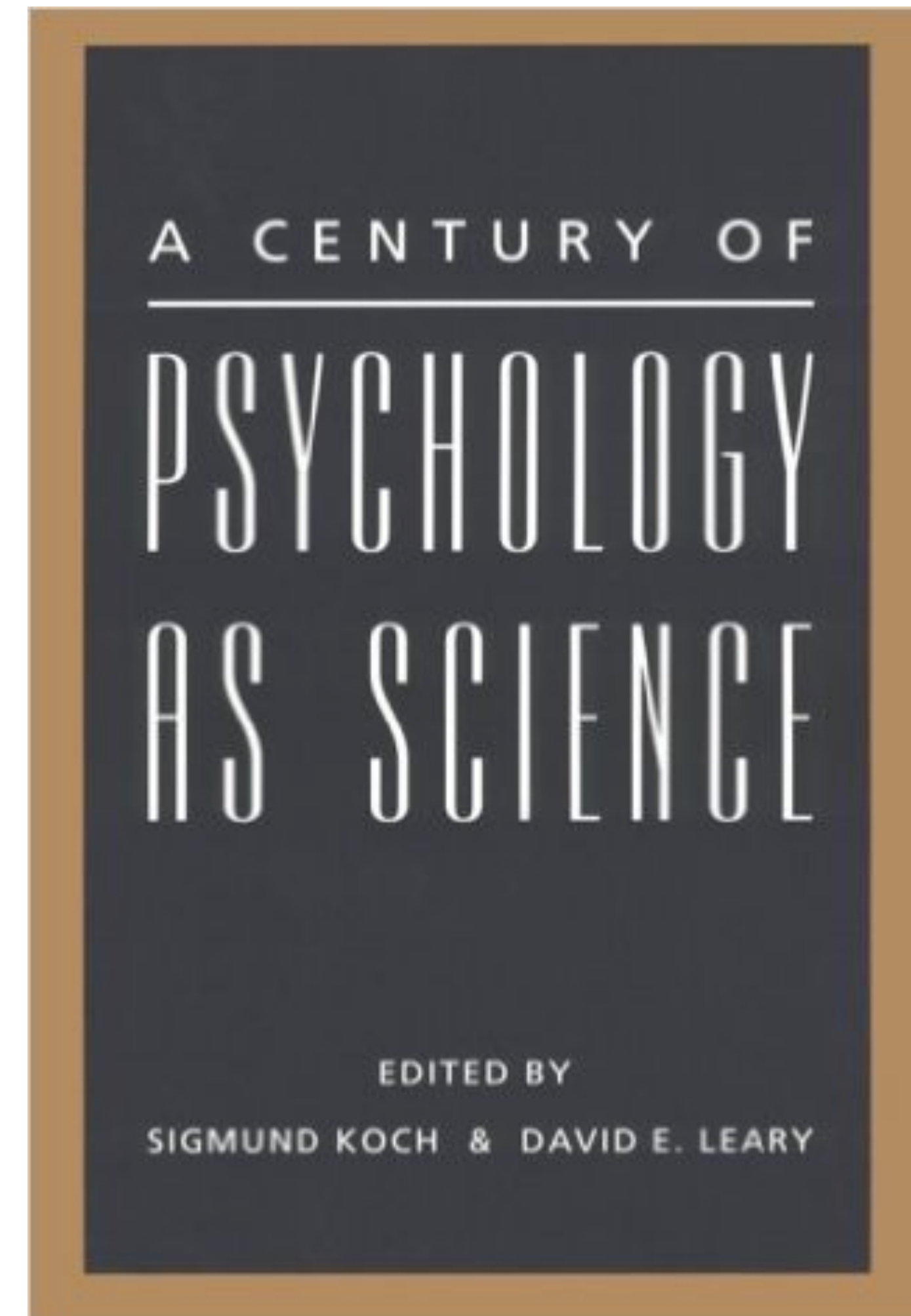
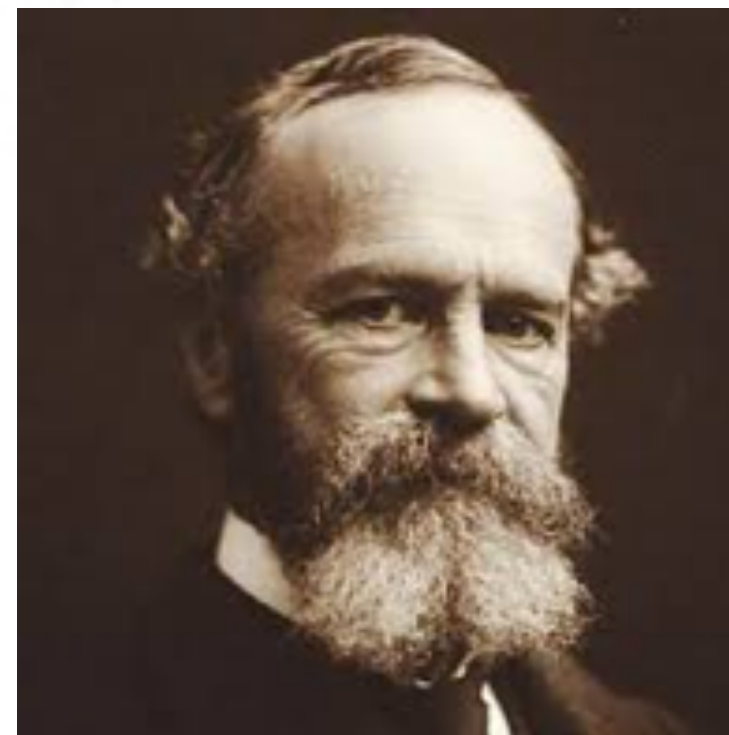
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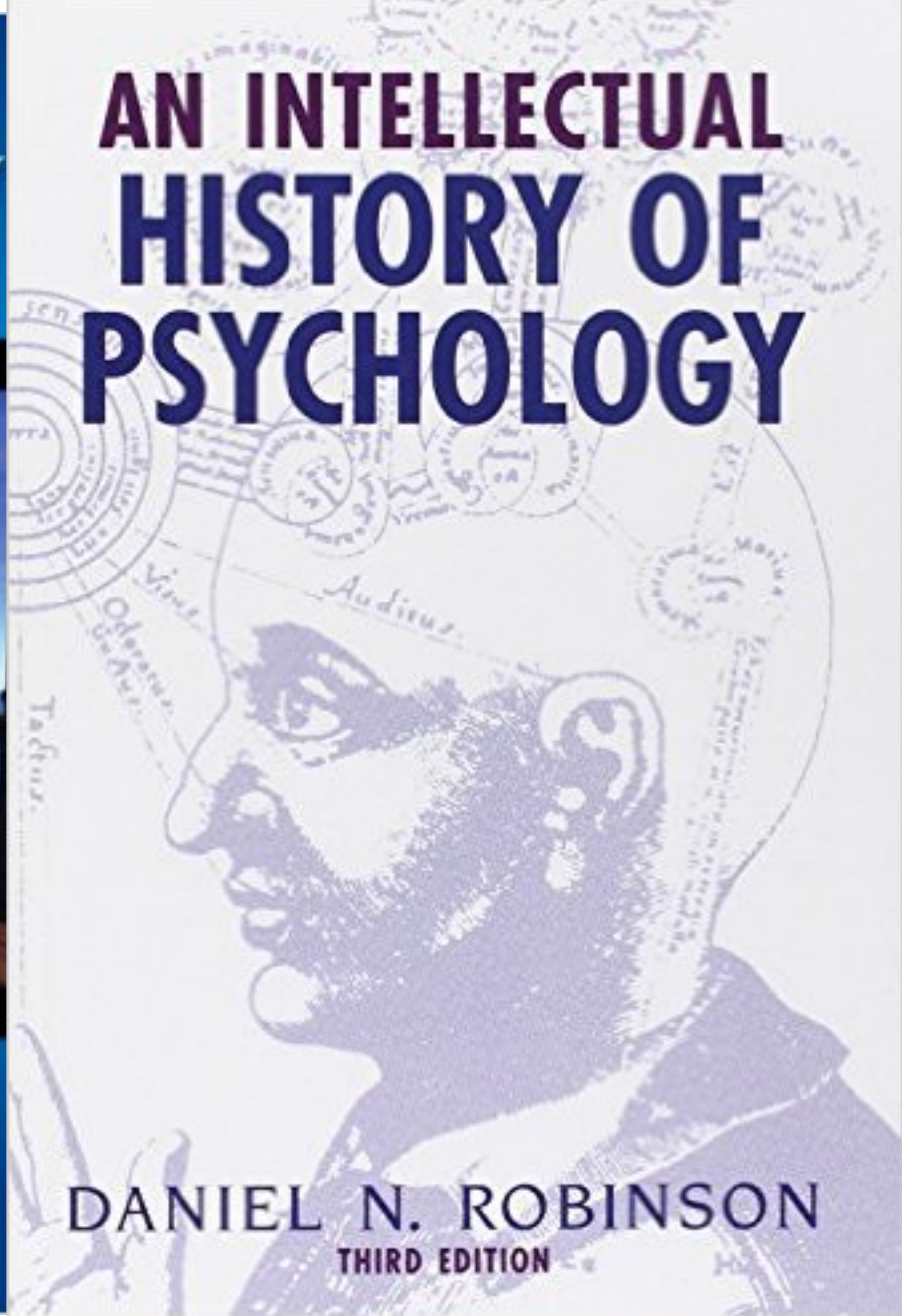


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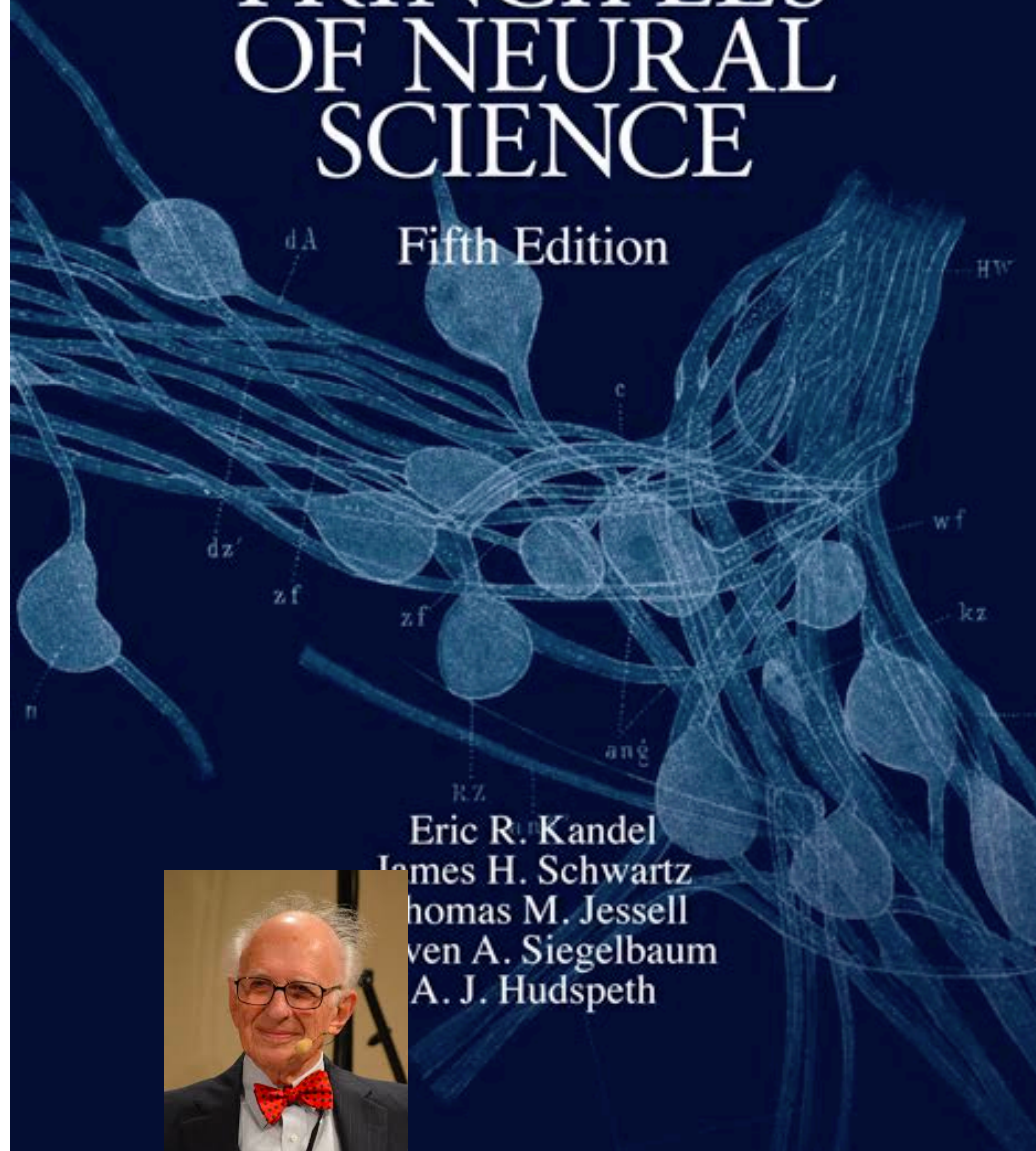


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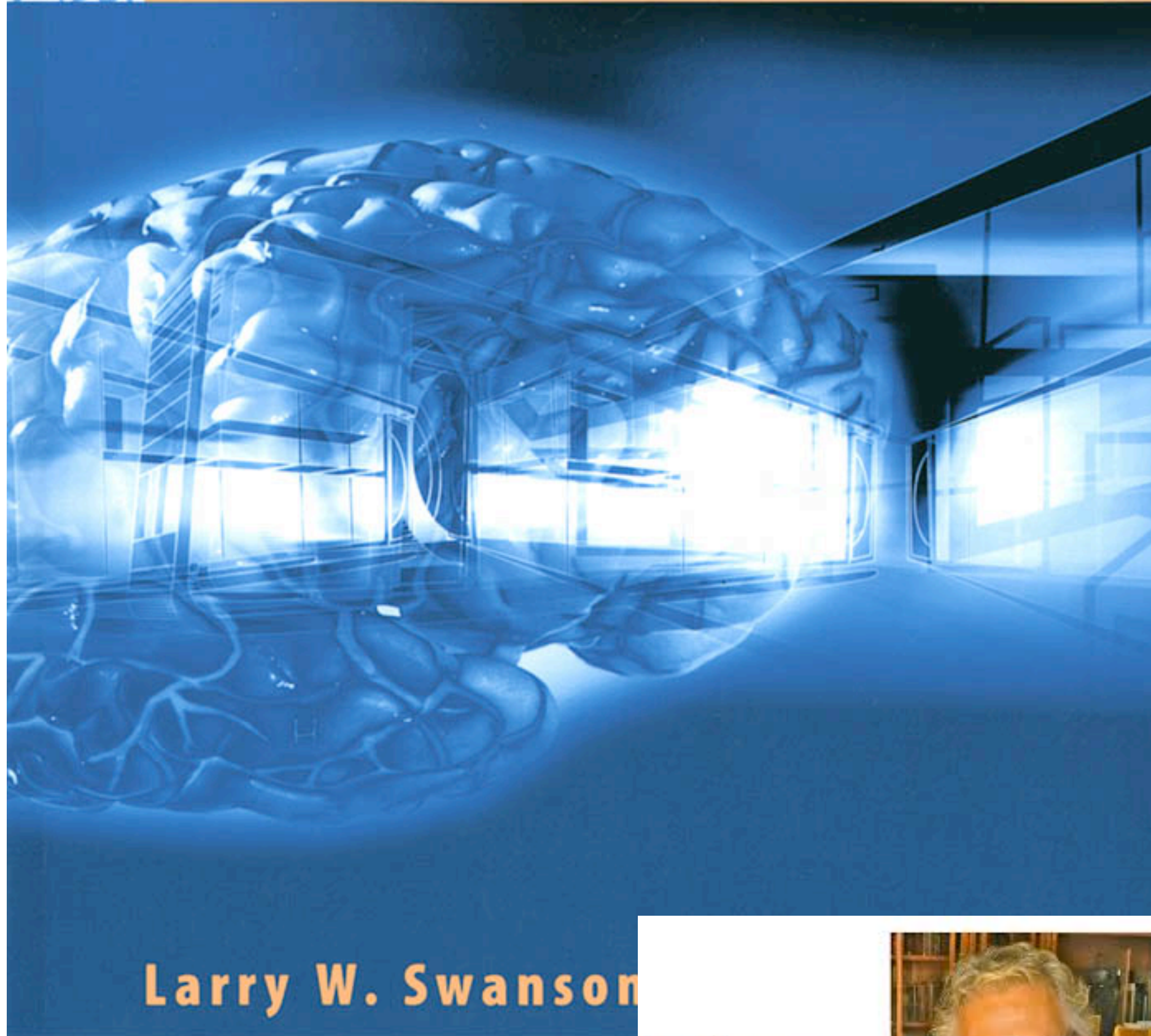
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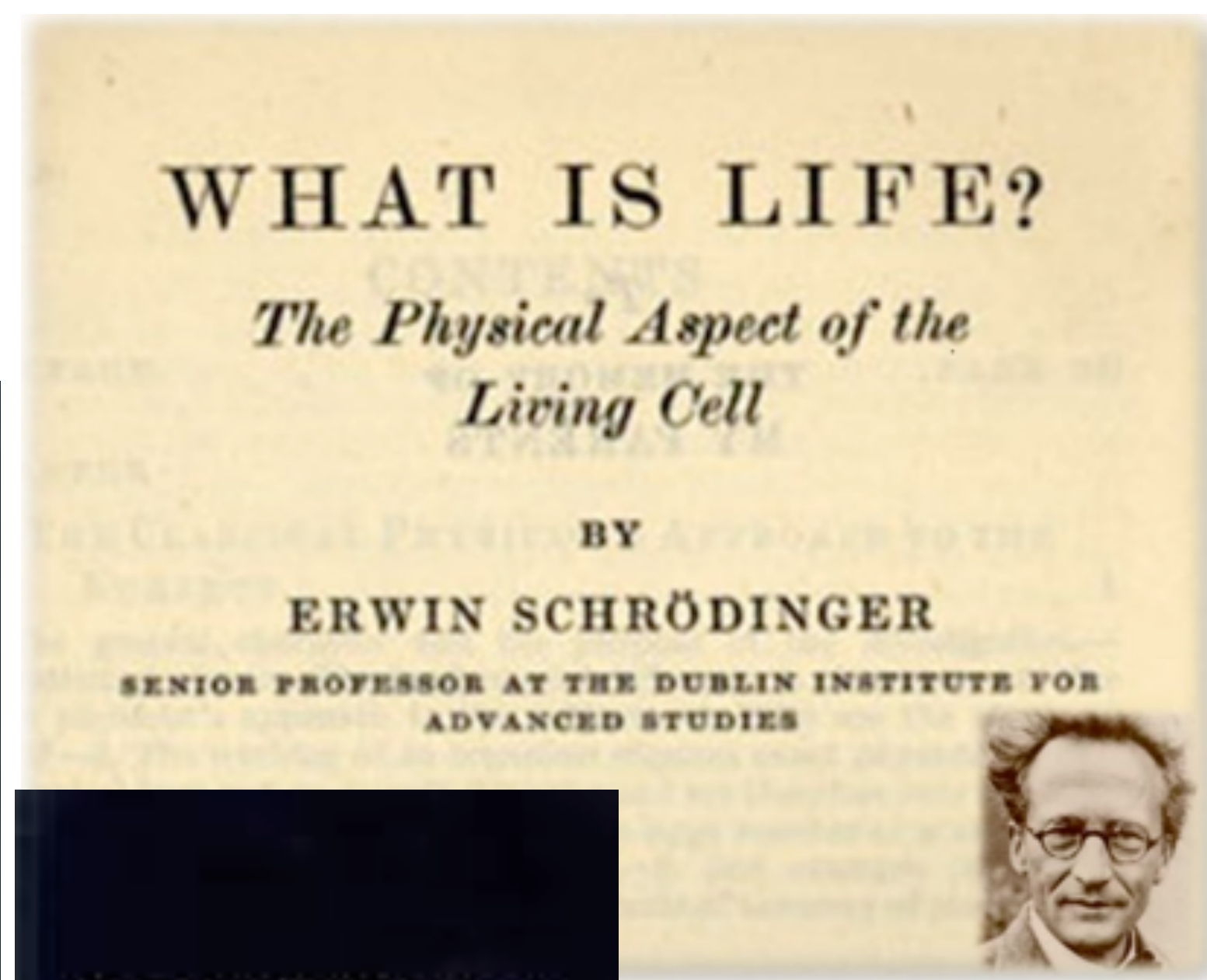
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Larry W. Swanson

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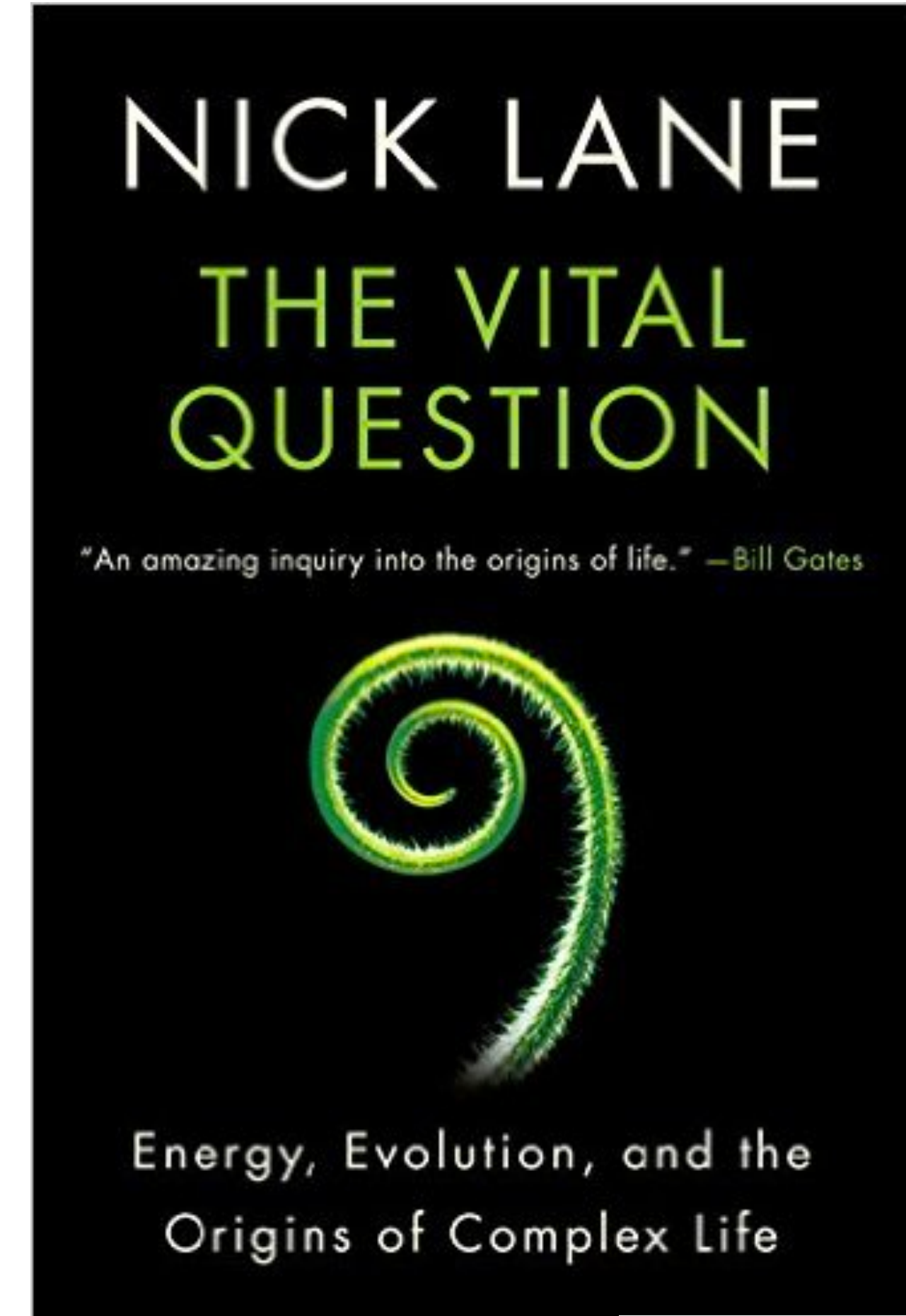
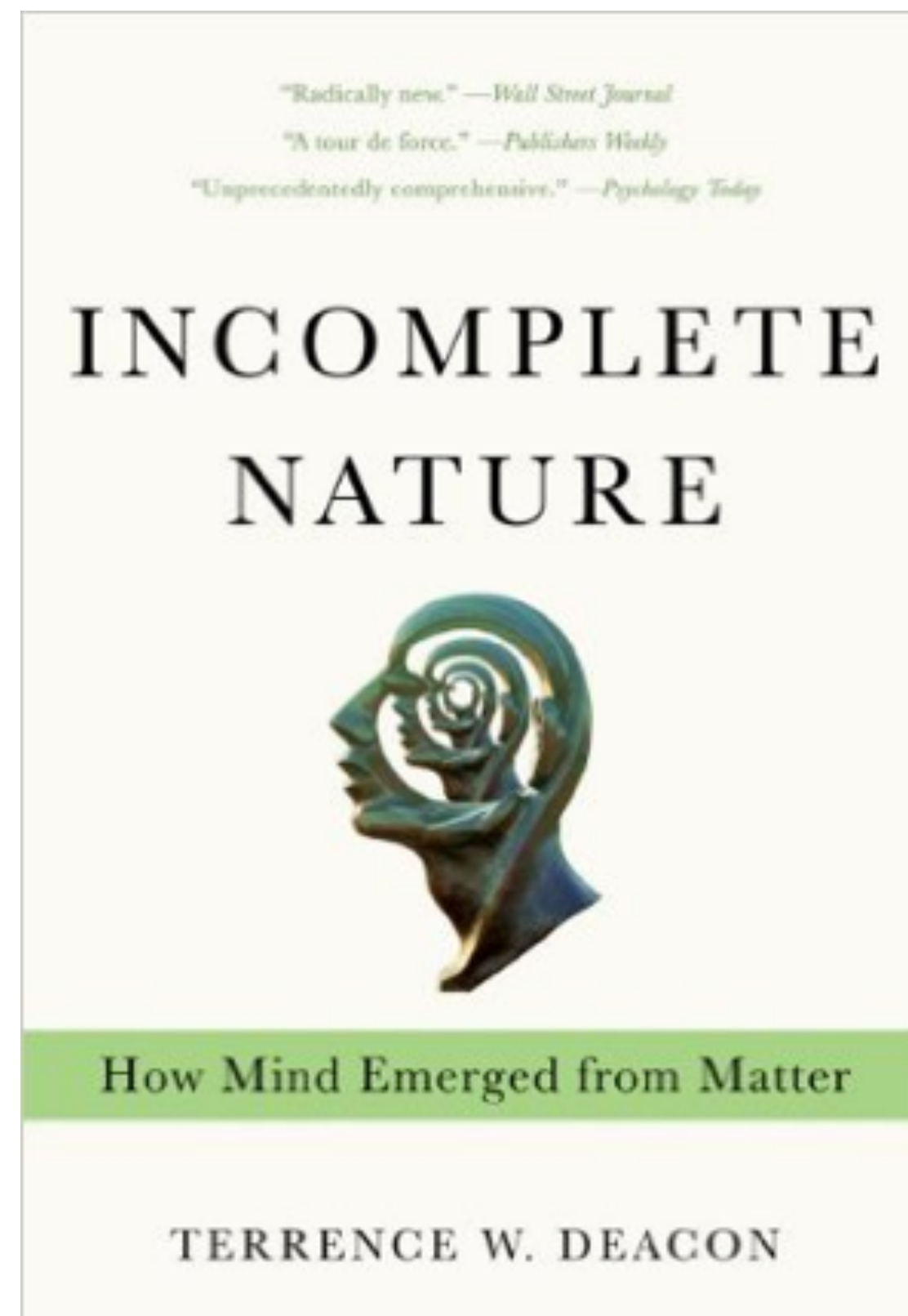




Life,
Evolution,
Dynamical systems

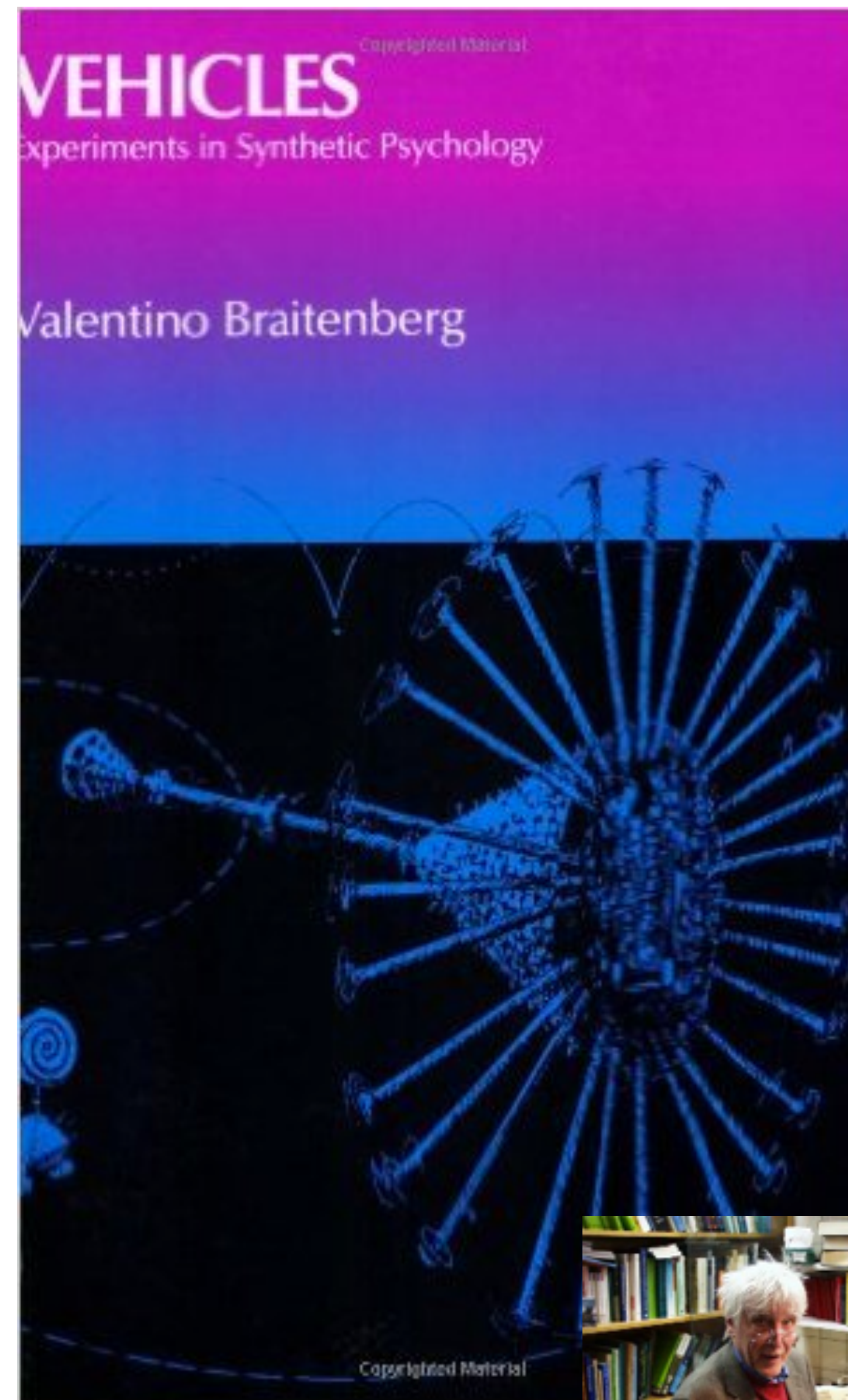
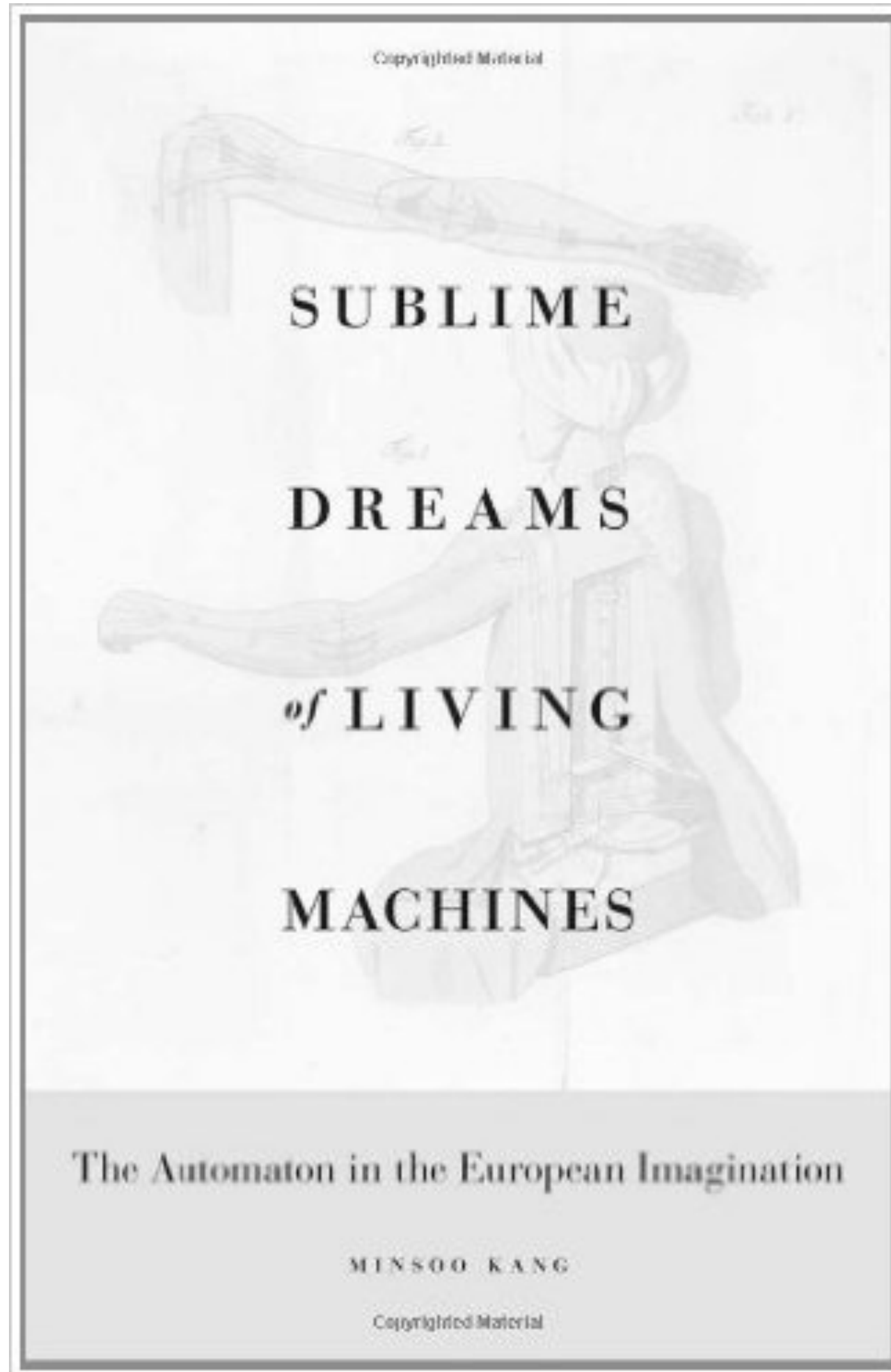


Erwin Schrödinger (1944)



Paul Verschure

Automata, models, emergence



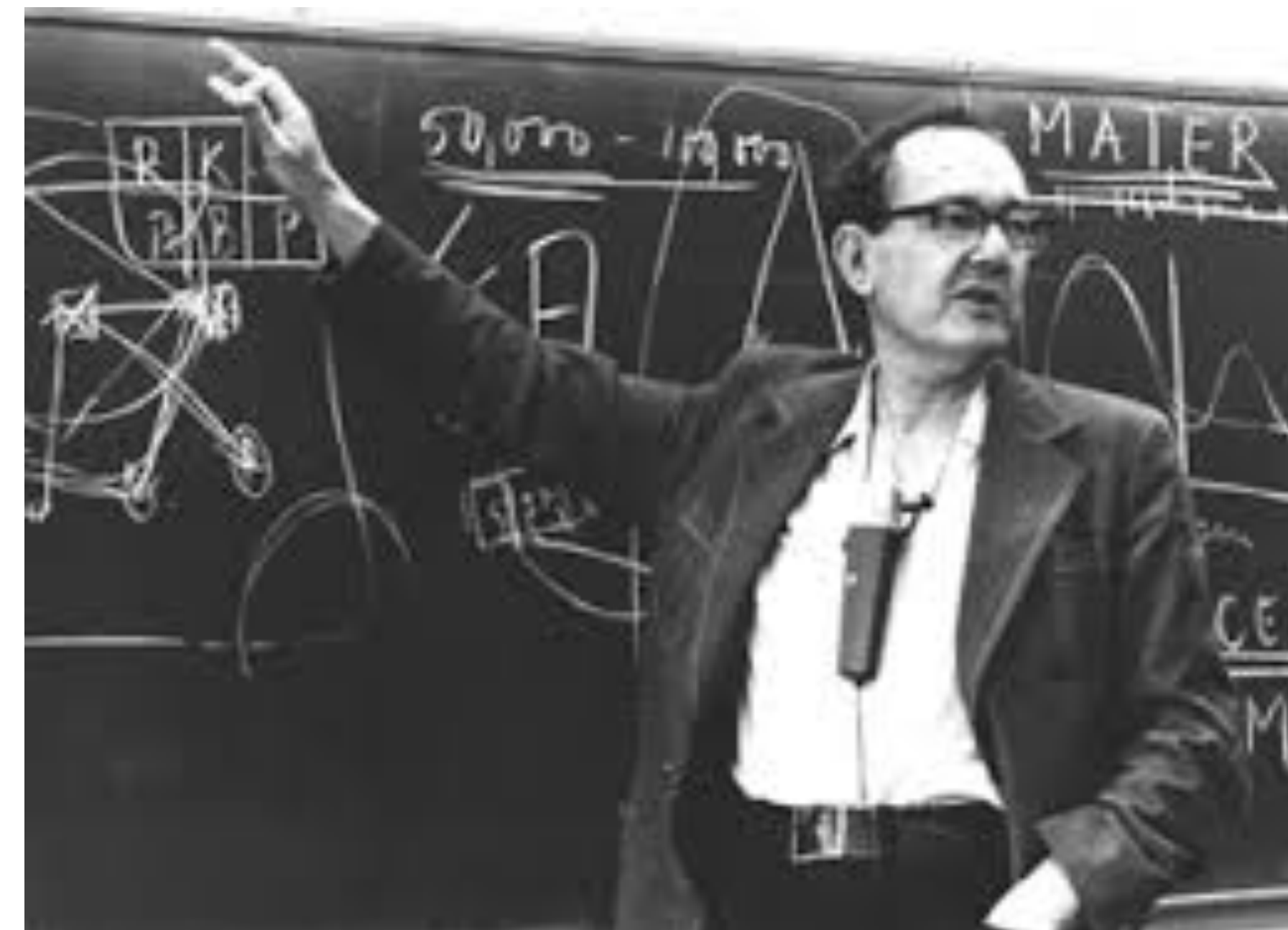
AI, models, emergence

Herbert A. Simon

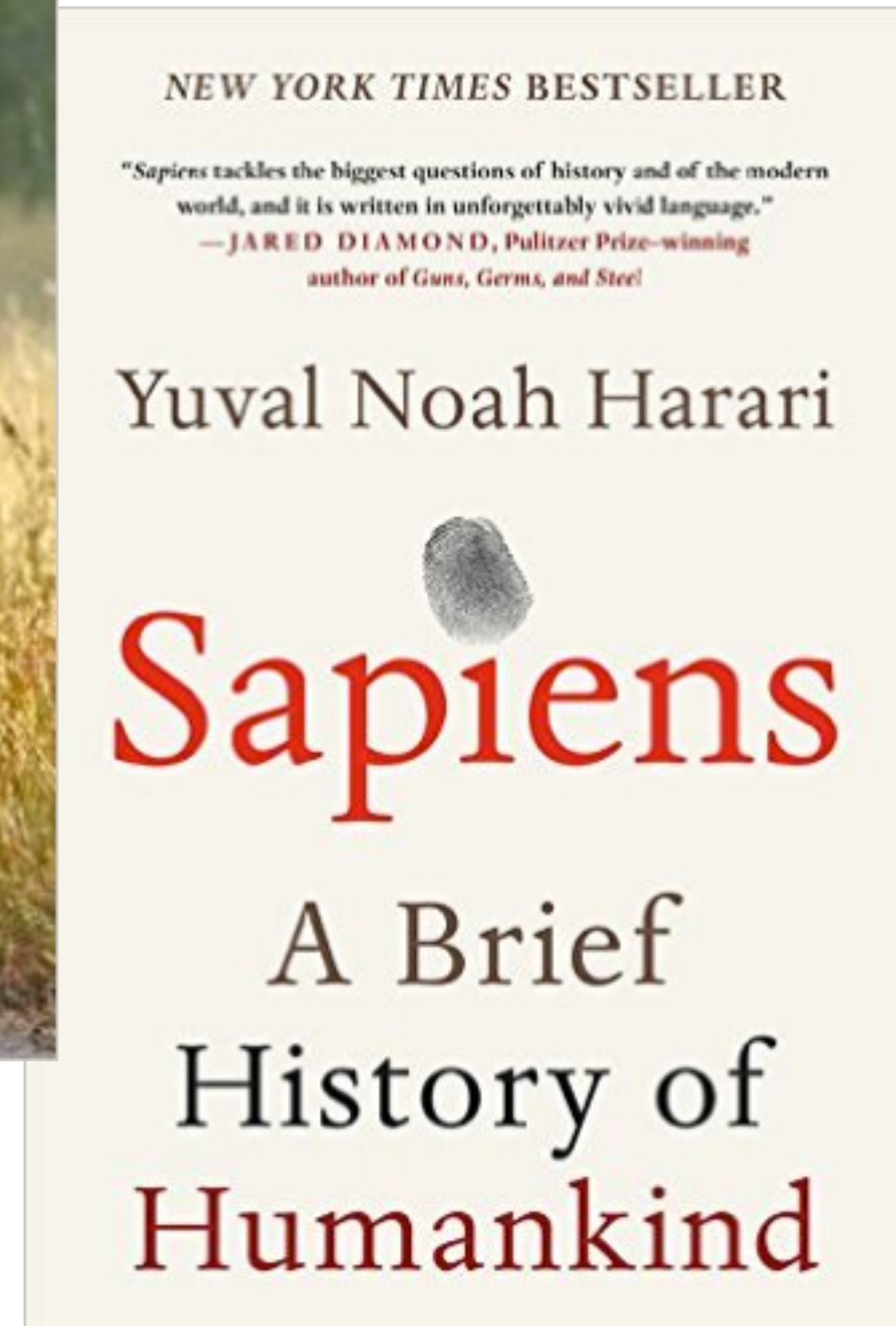
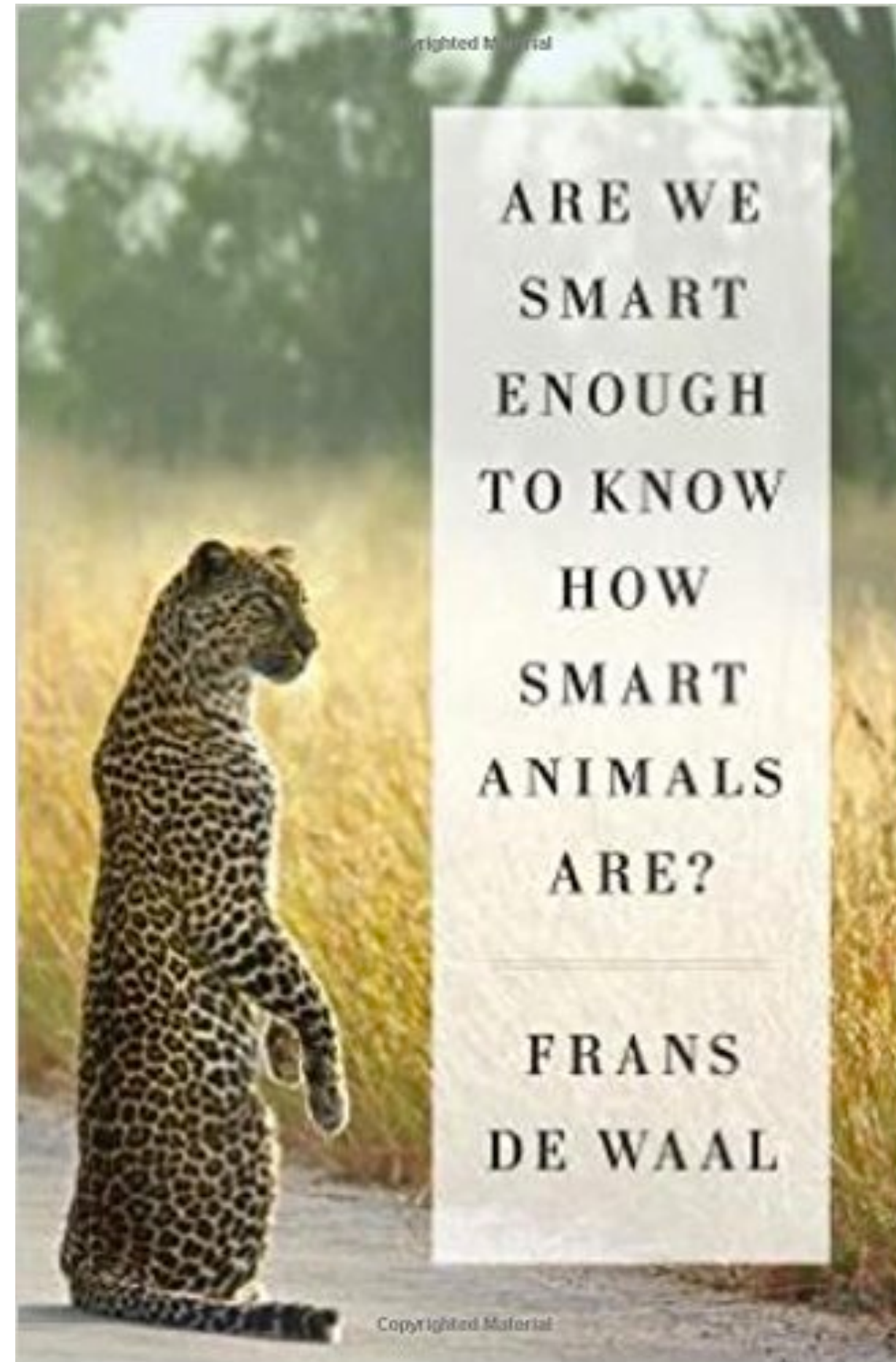
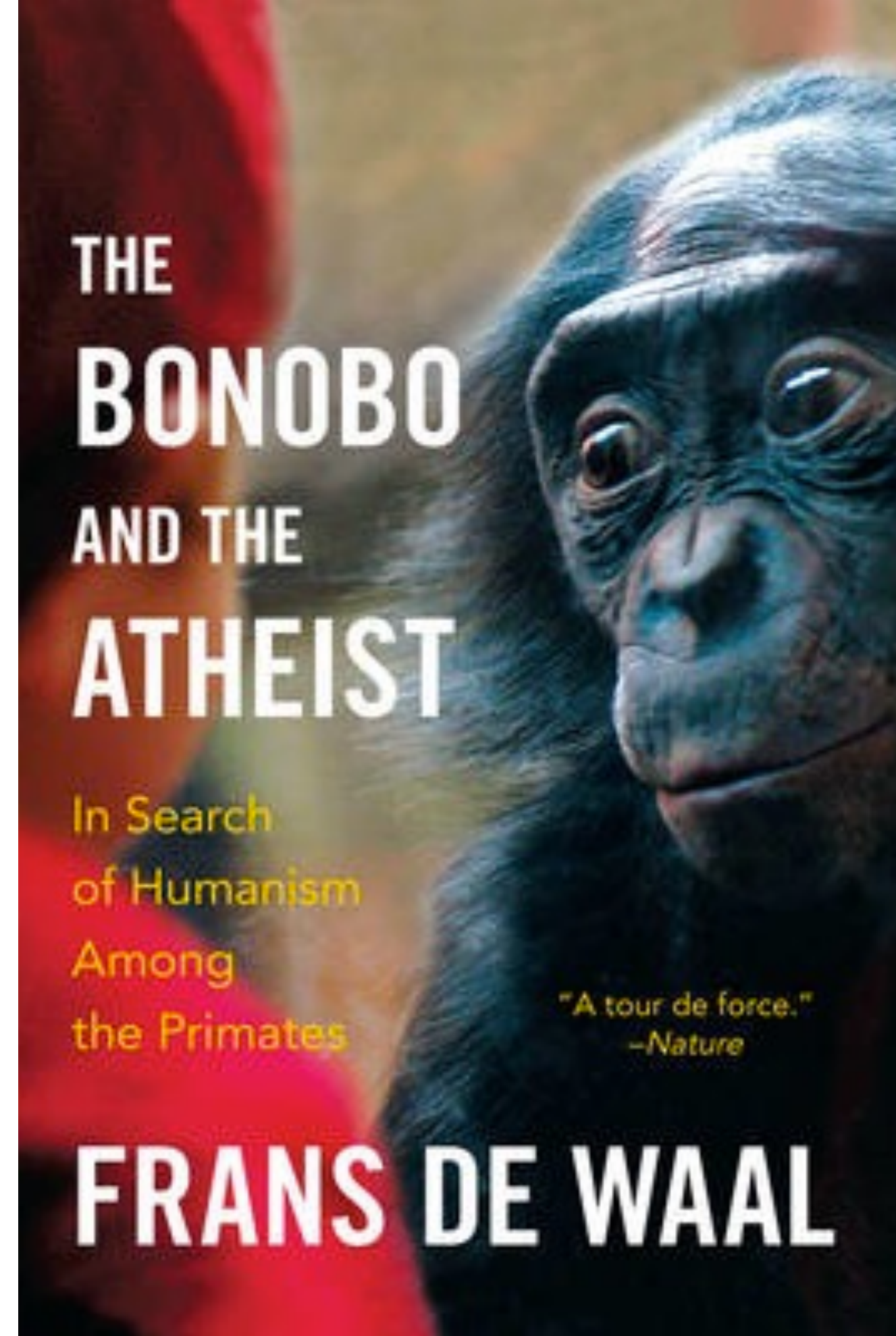


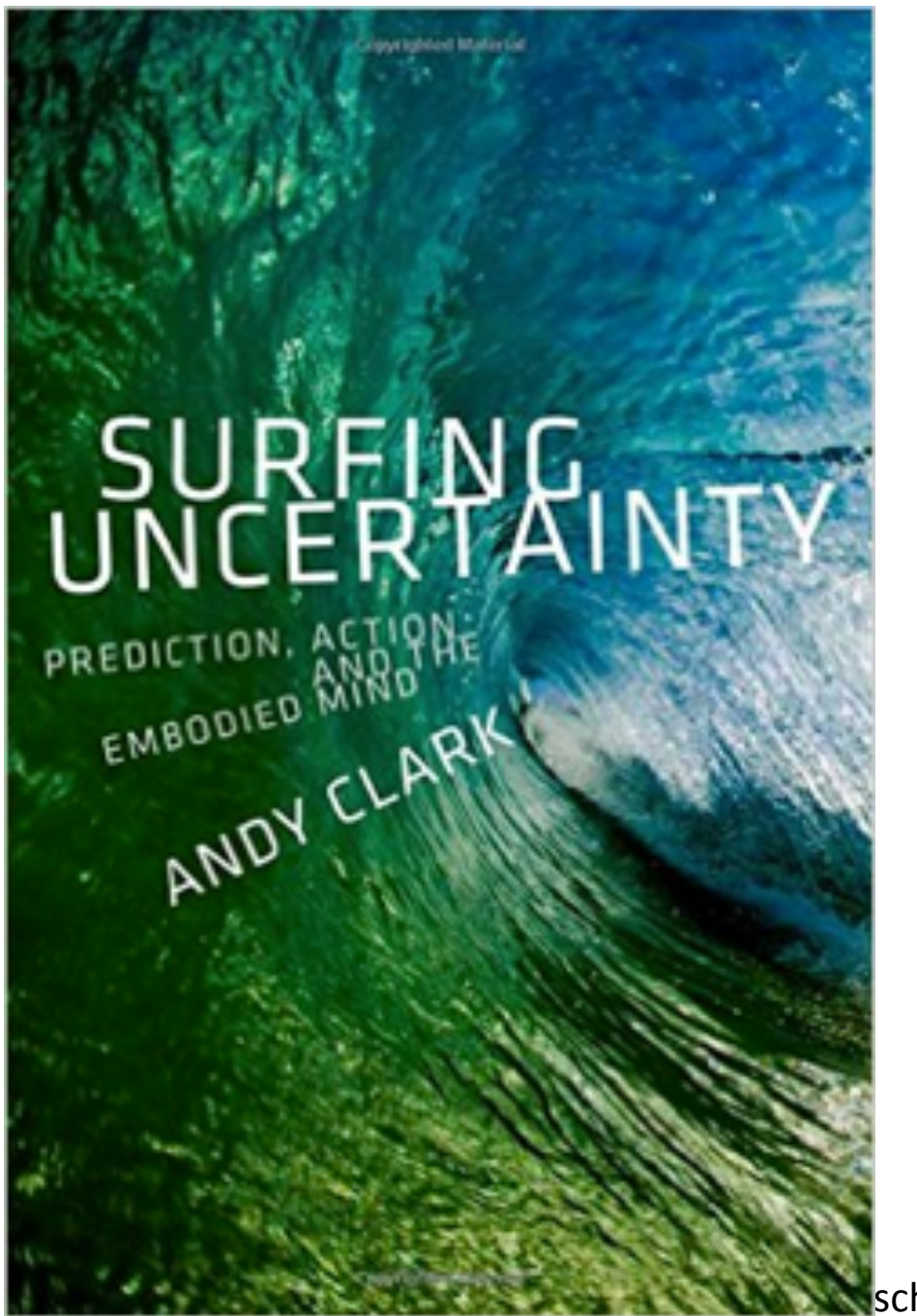
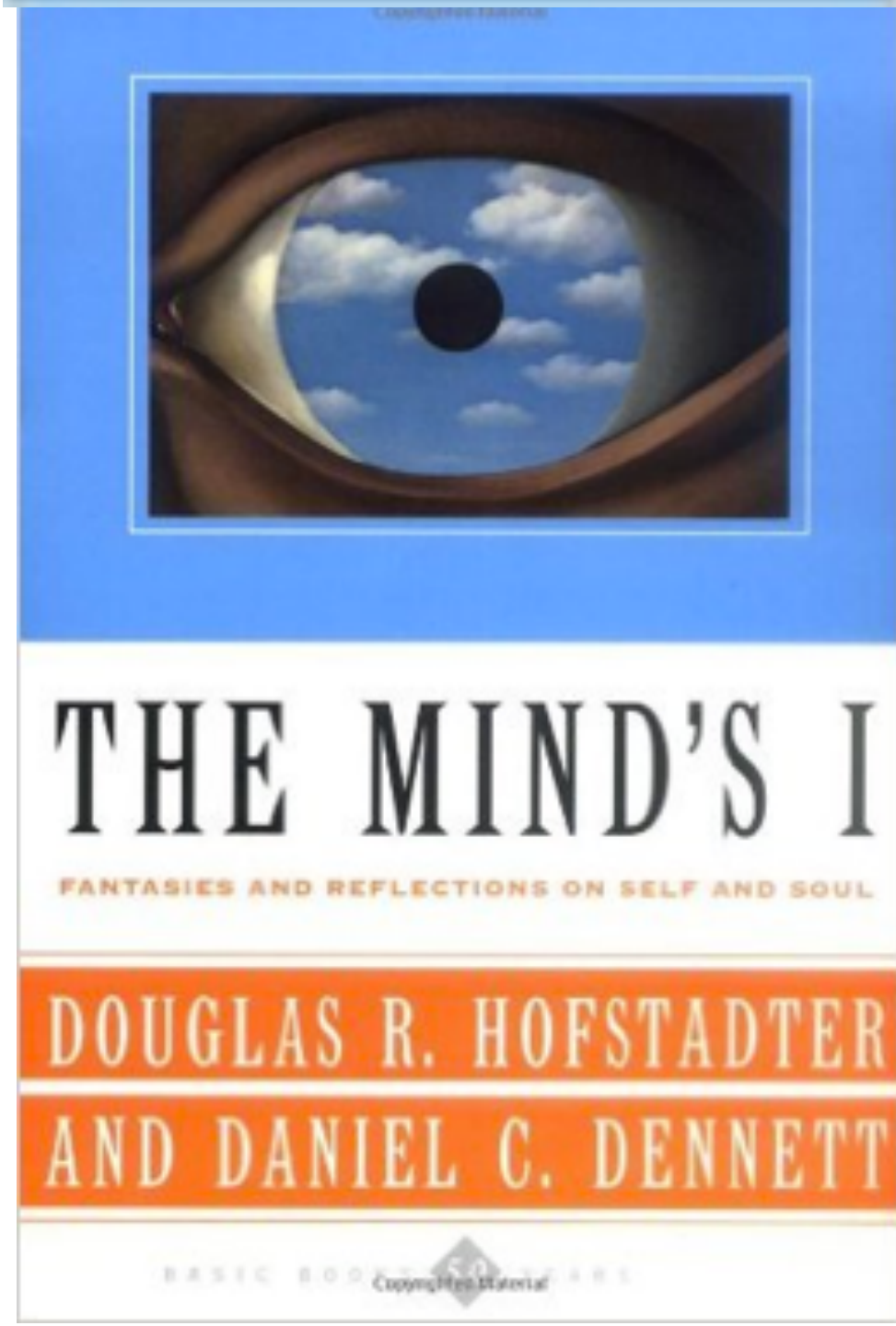
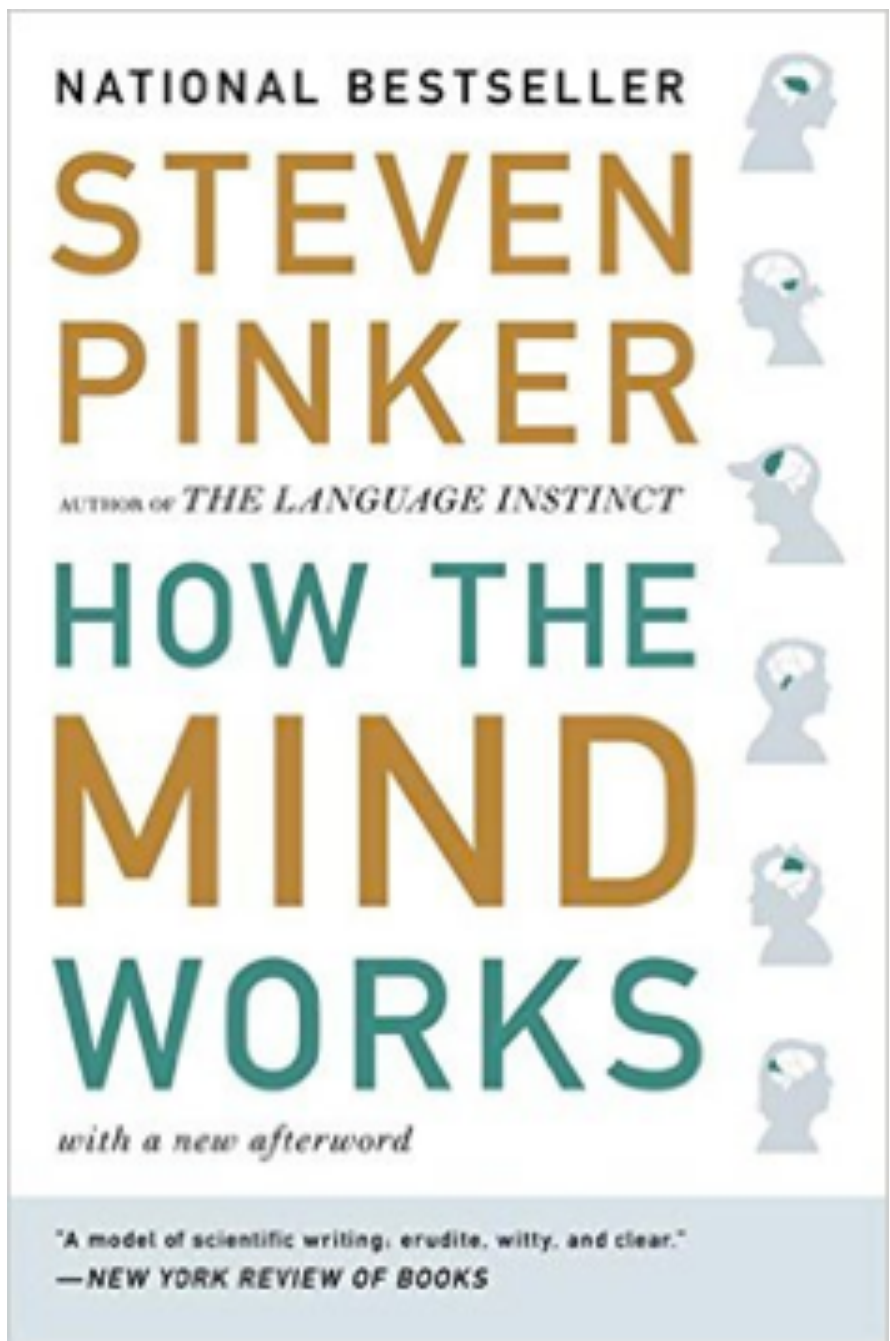
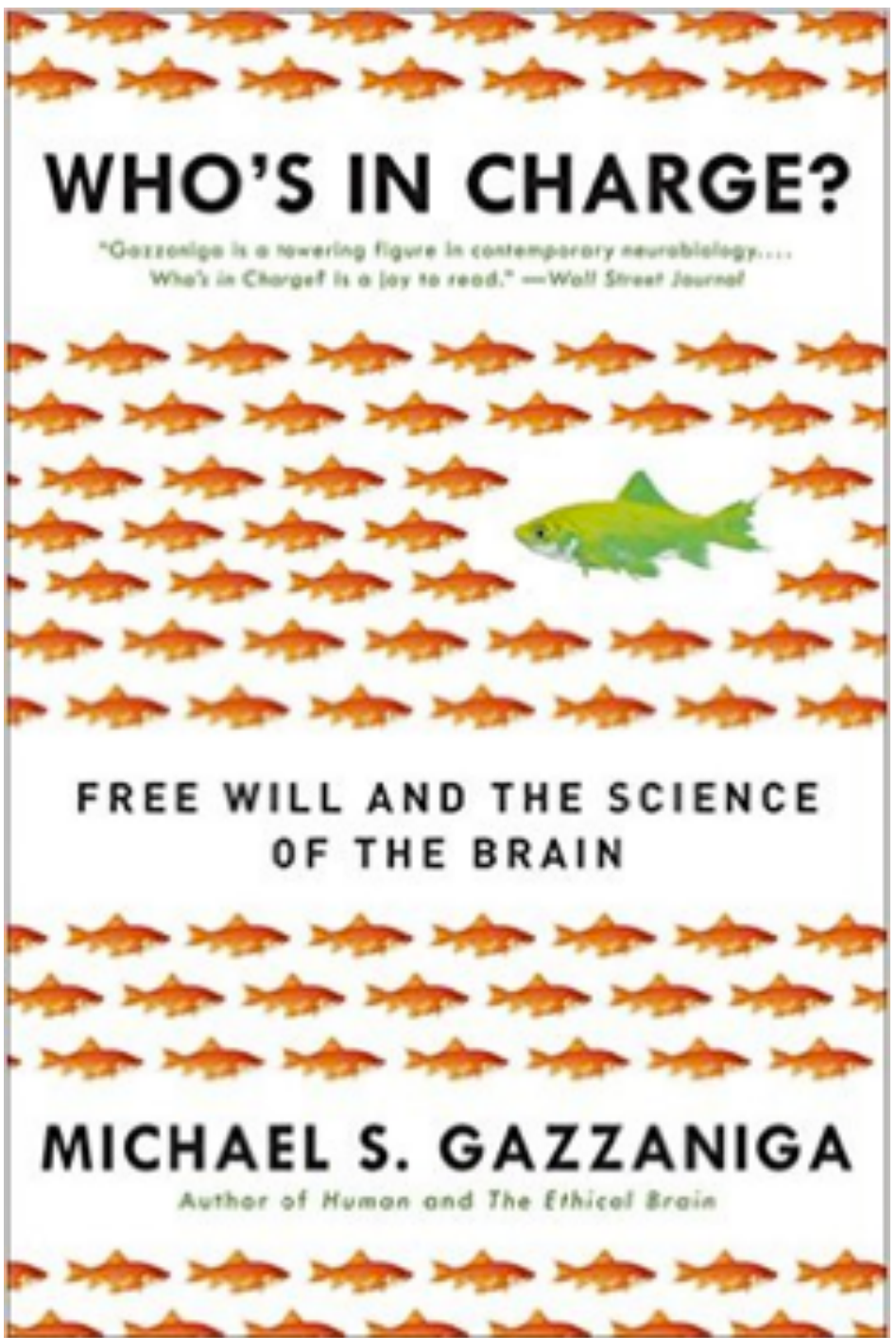
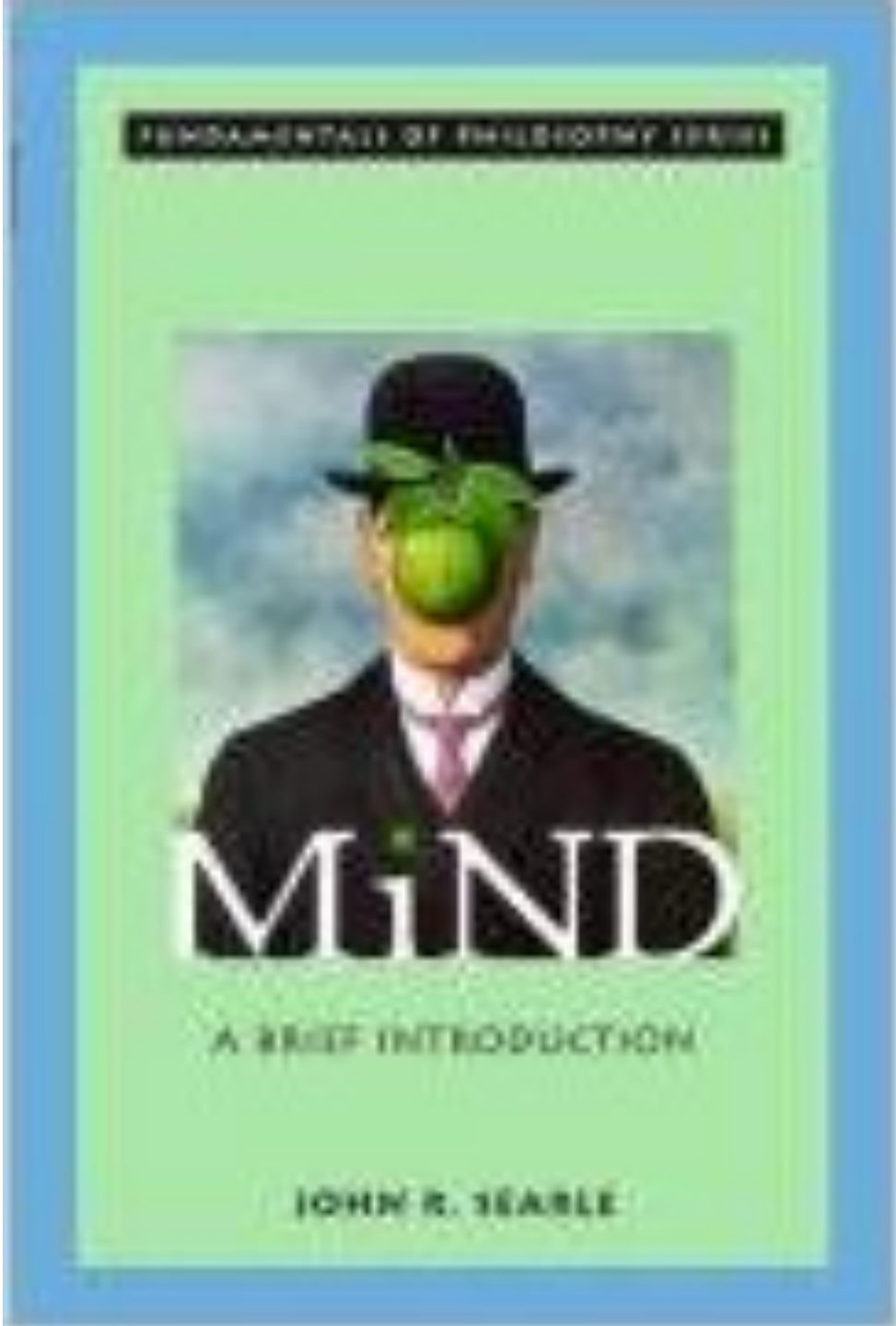
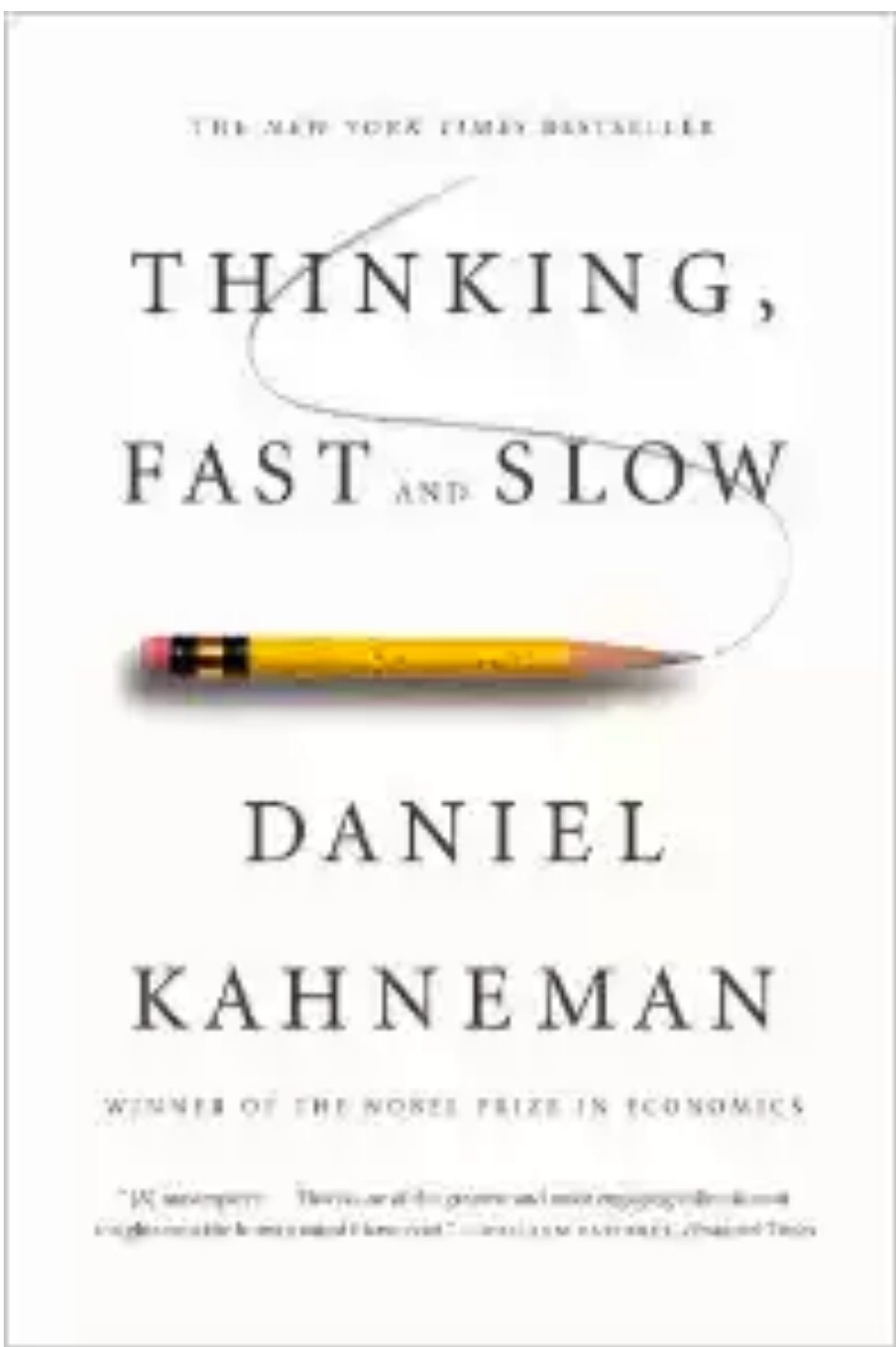
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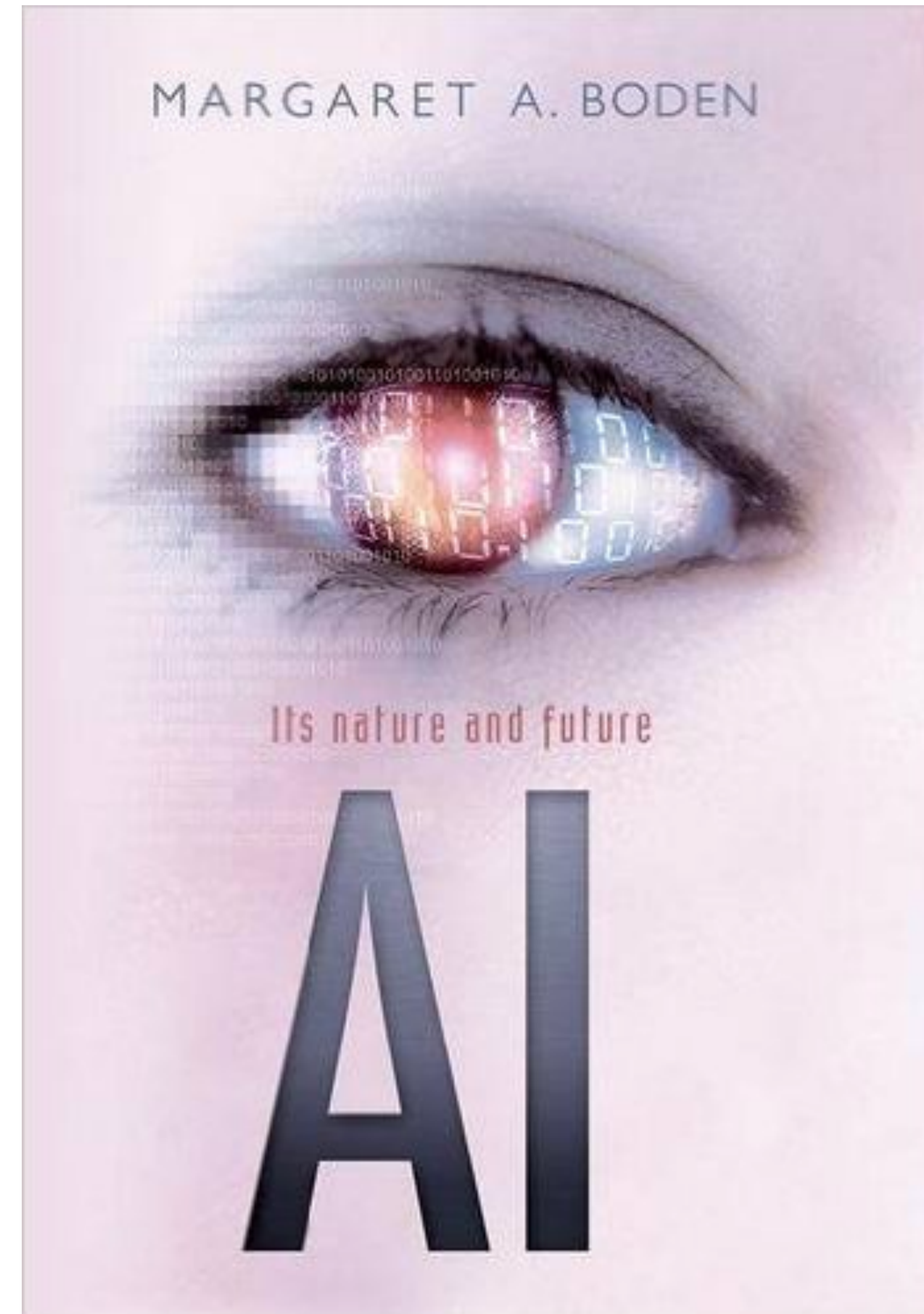
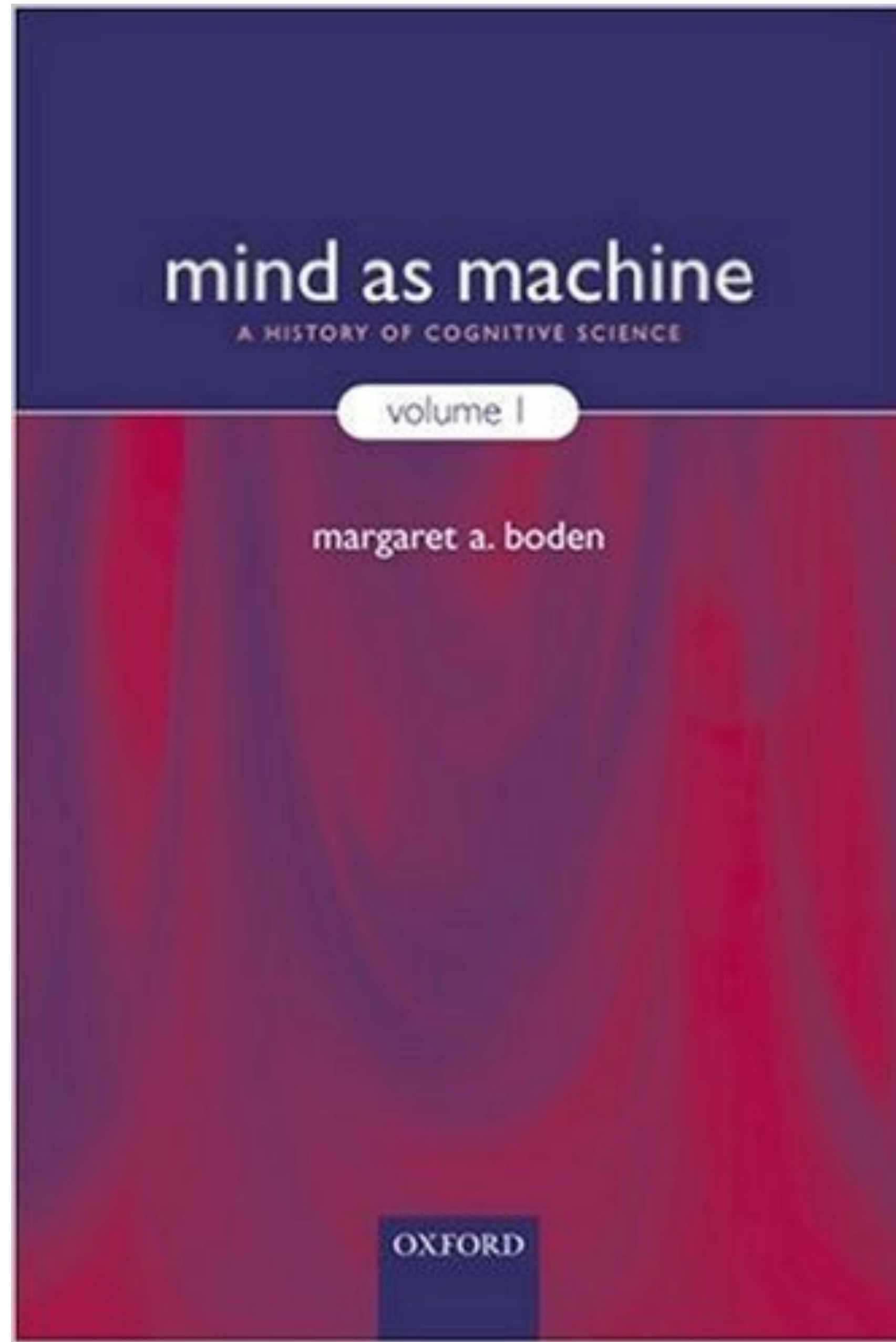
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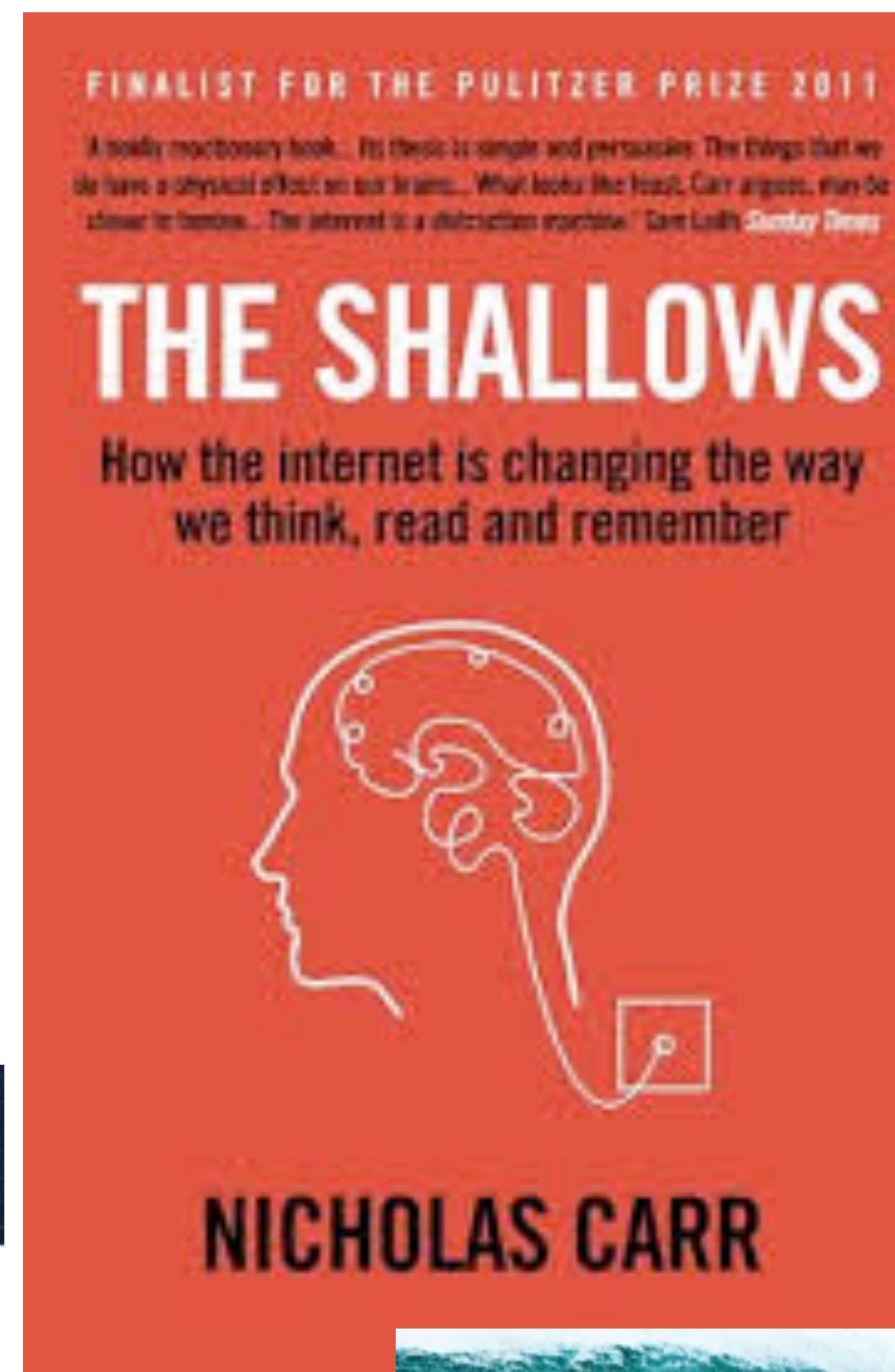
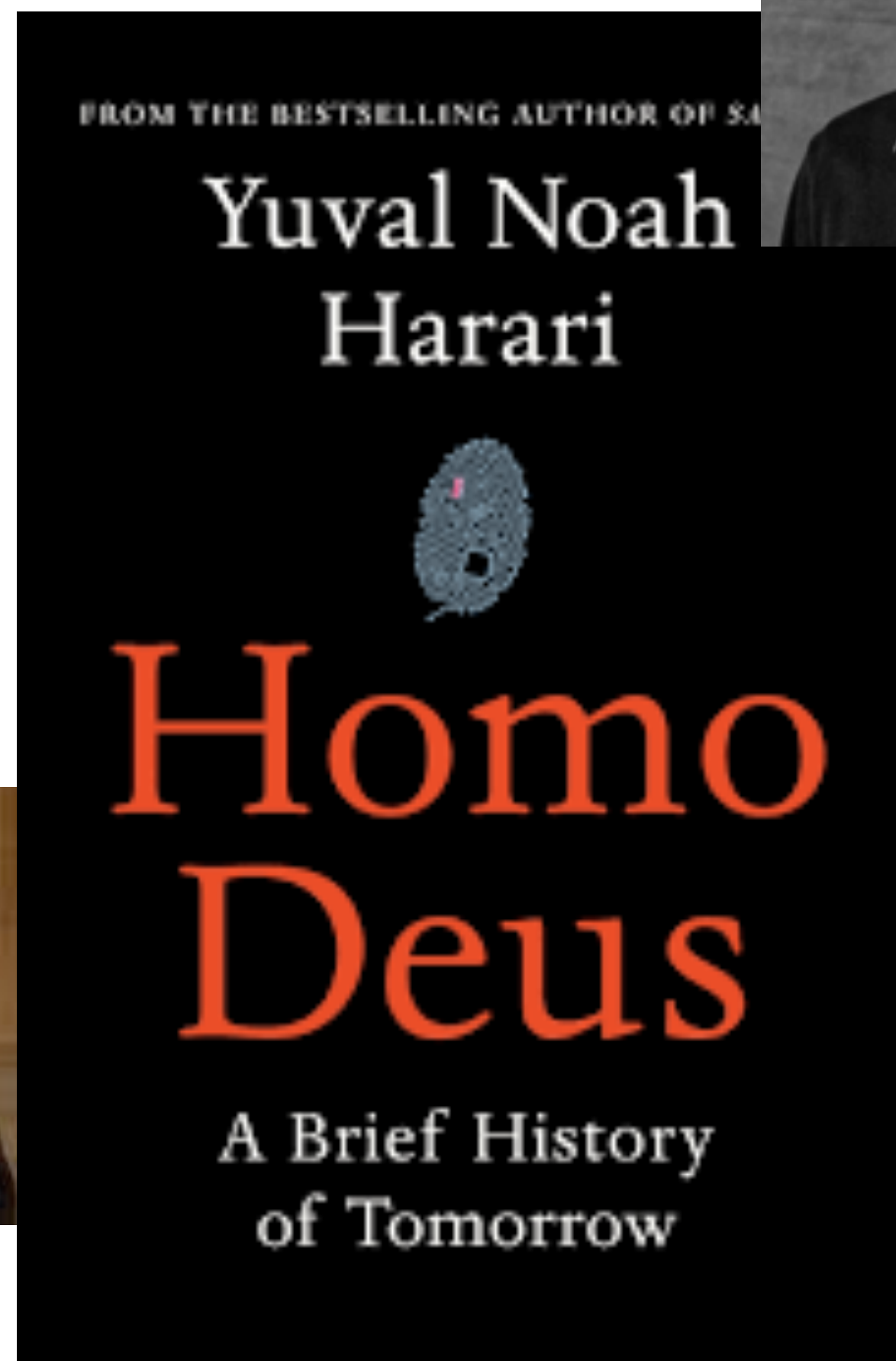
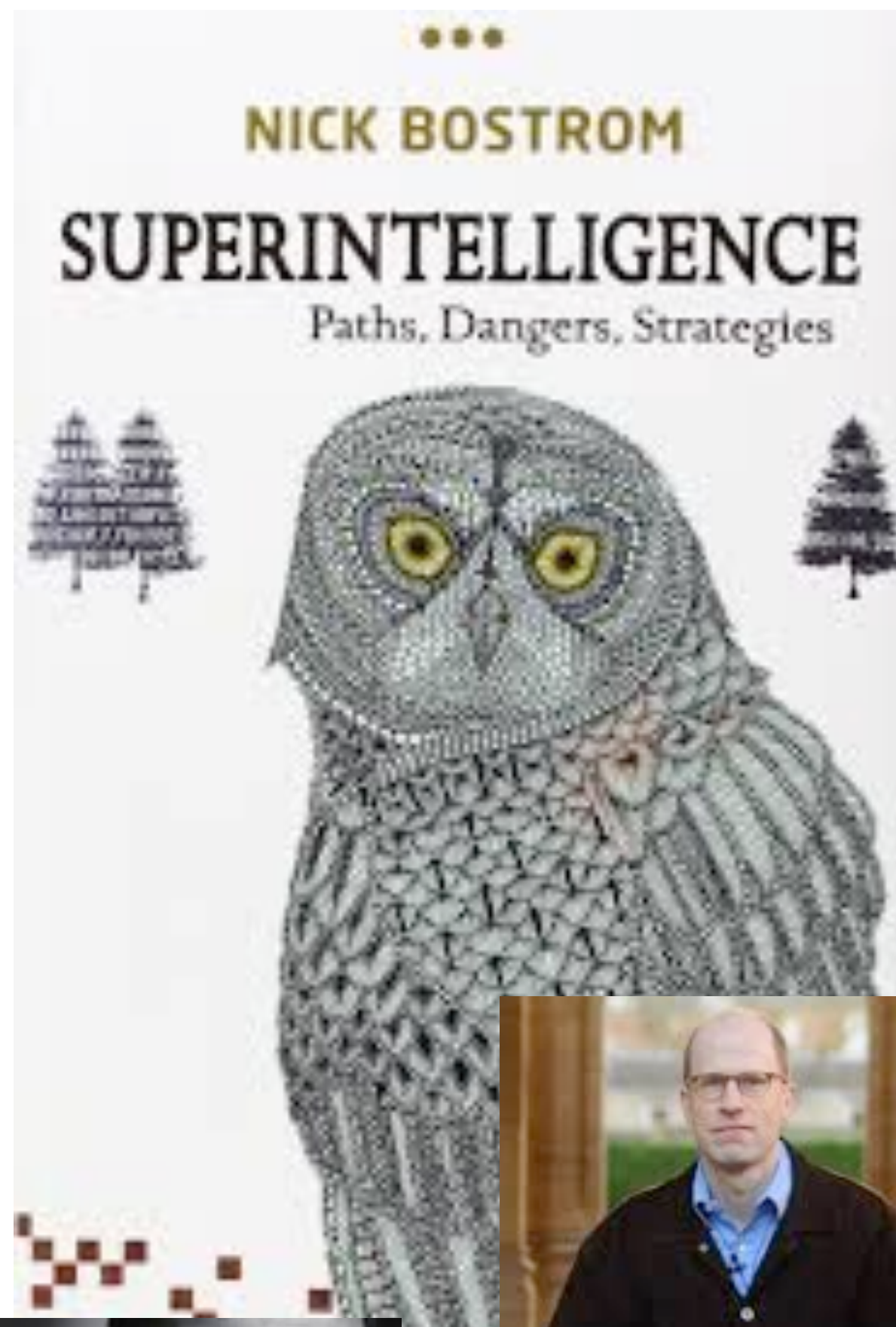
More philosophy of mind



VERY elaborate <<< The history of AI >>> Concise



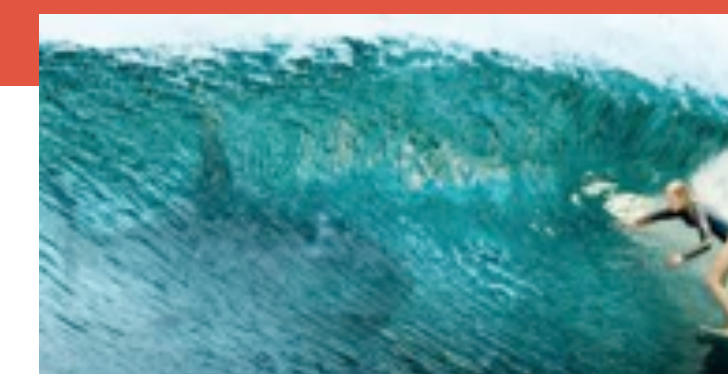
AI and other tech fears

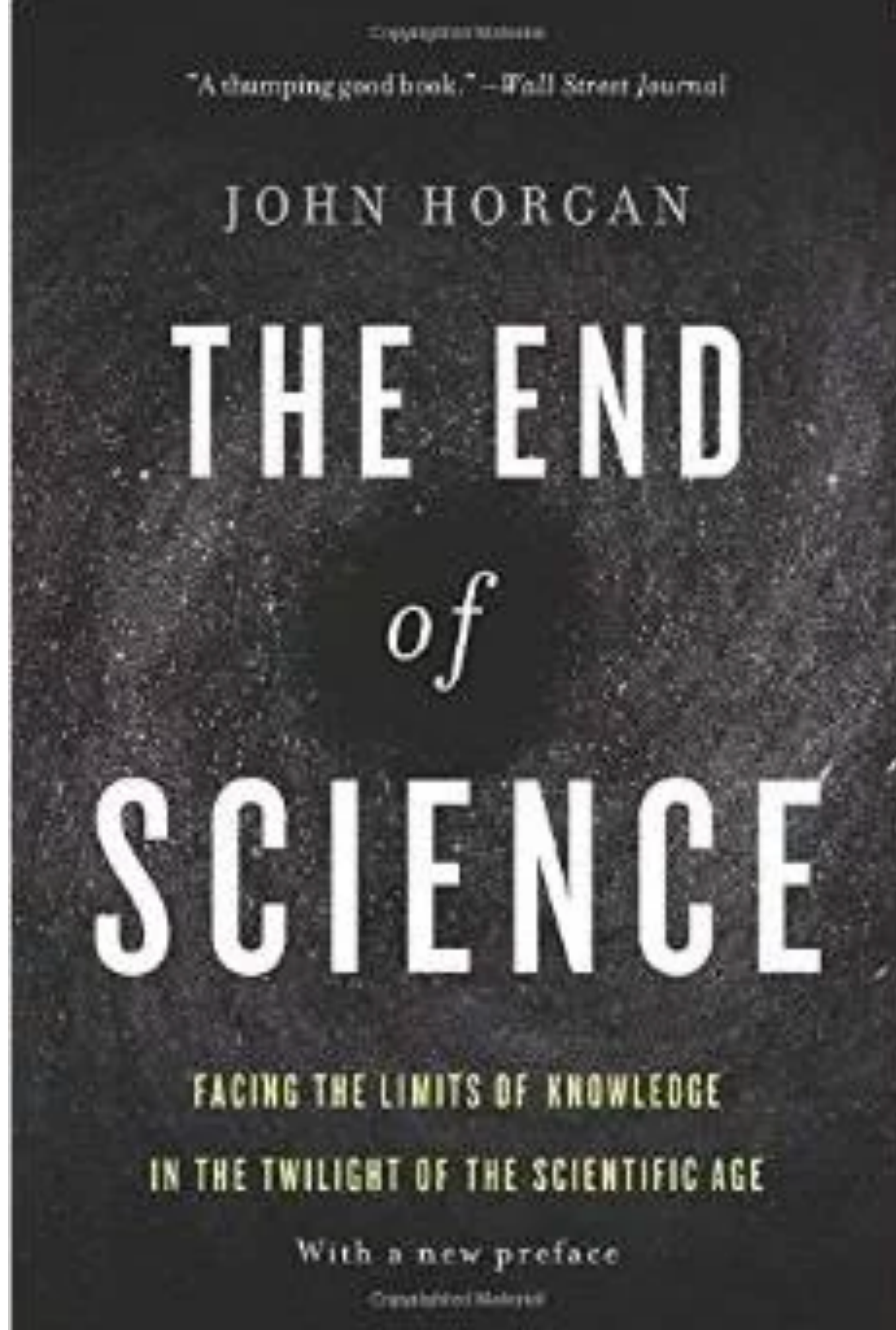


News: AI Biotech Nuclear Climate Partner Orgs

An Open Letter
RESEARCH PRIORITIES FOR ROBUST AND BENEFICIAL ARTIFICIAL INTELLIGENCE

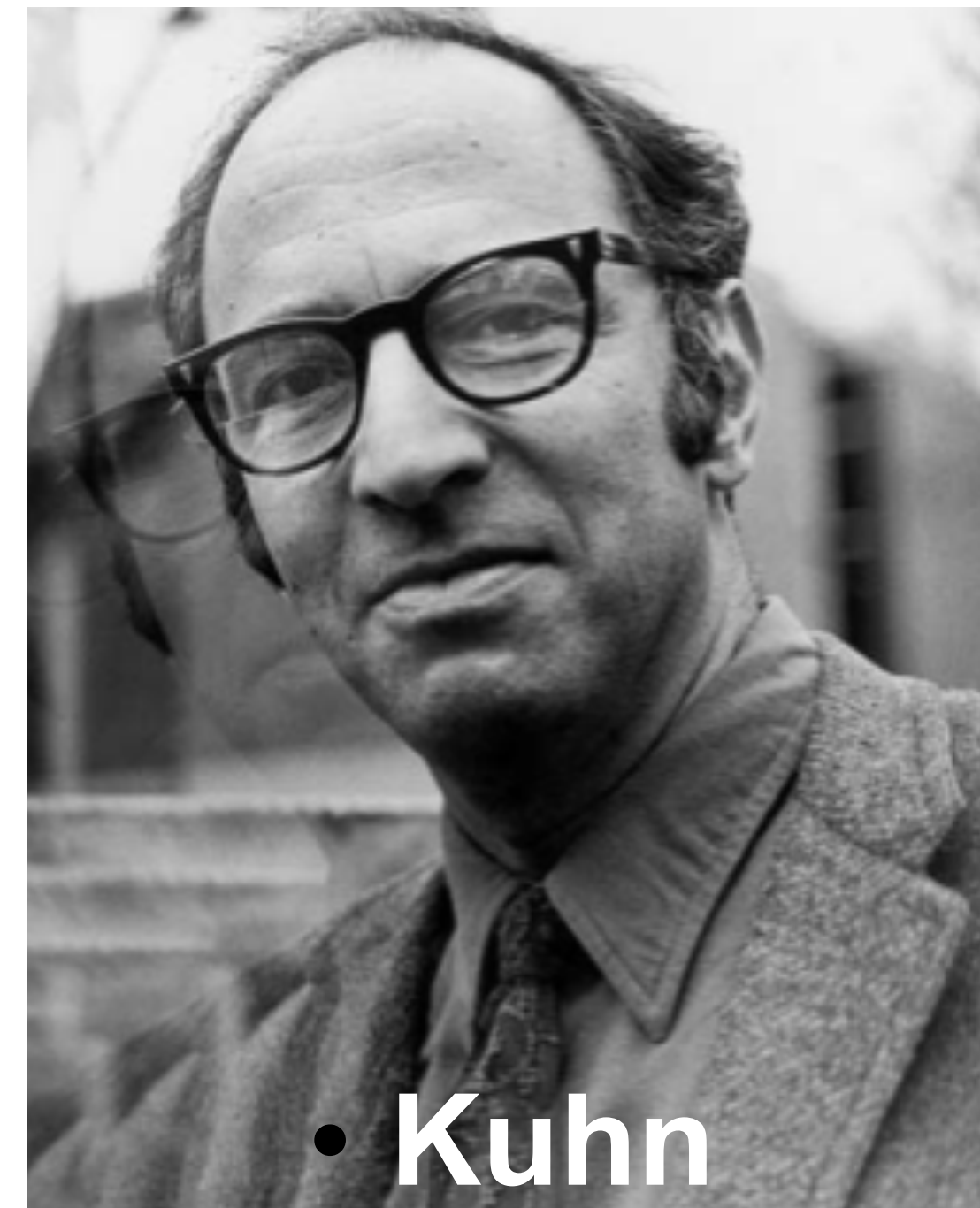
FLI PROJECTS & UPDATES





What is science, its scope and validity?

Thomas Kuhn
The Structure of Scientific revolutions
1962



• **Kuhn**

**THE AGE OF
SURVEILLANCE
CAPITALISM**

**THE FIGHT FOR A
HUMAN FUTURE
AT THE NEW
FRONTIER OF POWER**

**SHOSHANA
ZUBOFF**

The real world is beyond science fiction

"Runaround" (1942)

"Handbook of Robotics, 56th Edition, 2058 A.D."

The Three Laws:

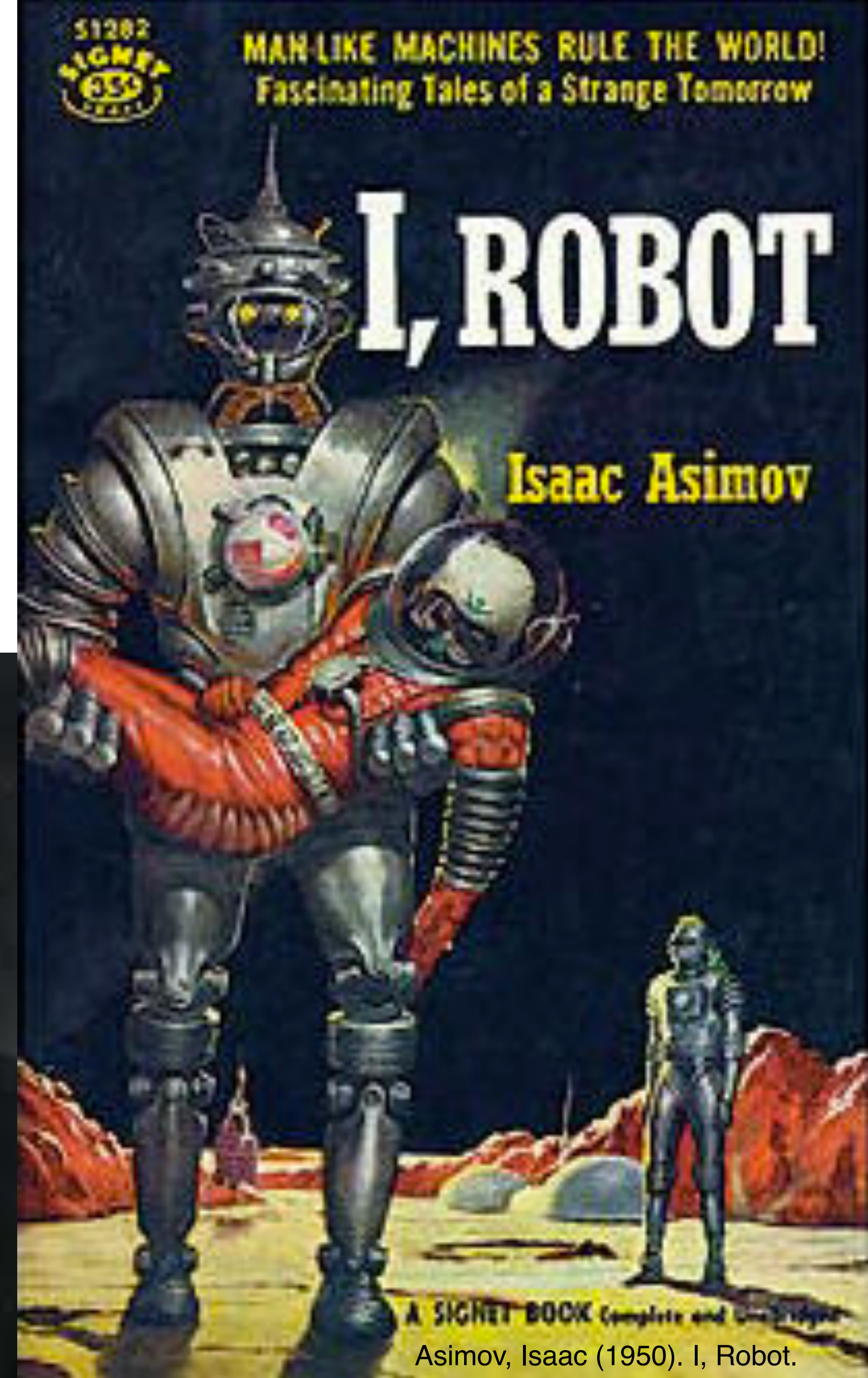
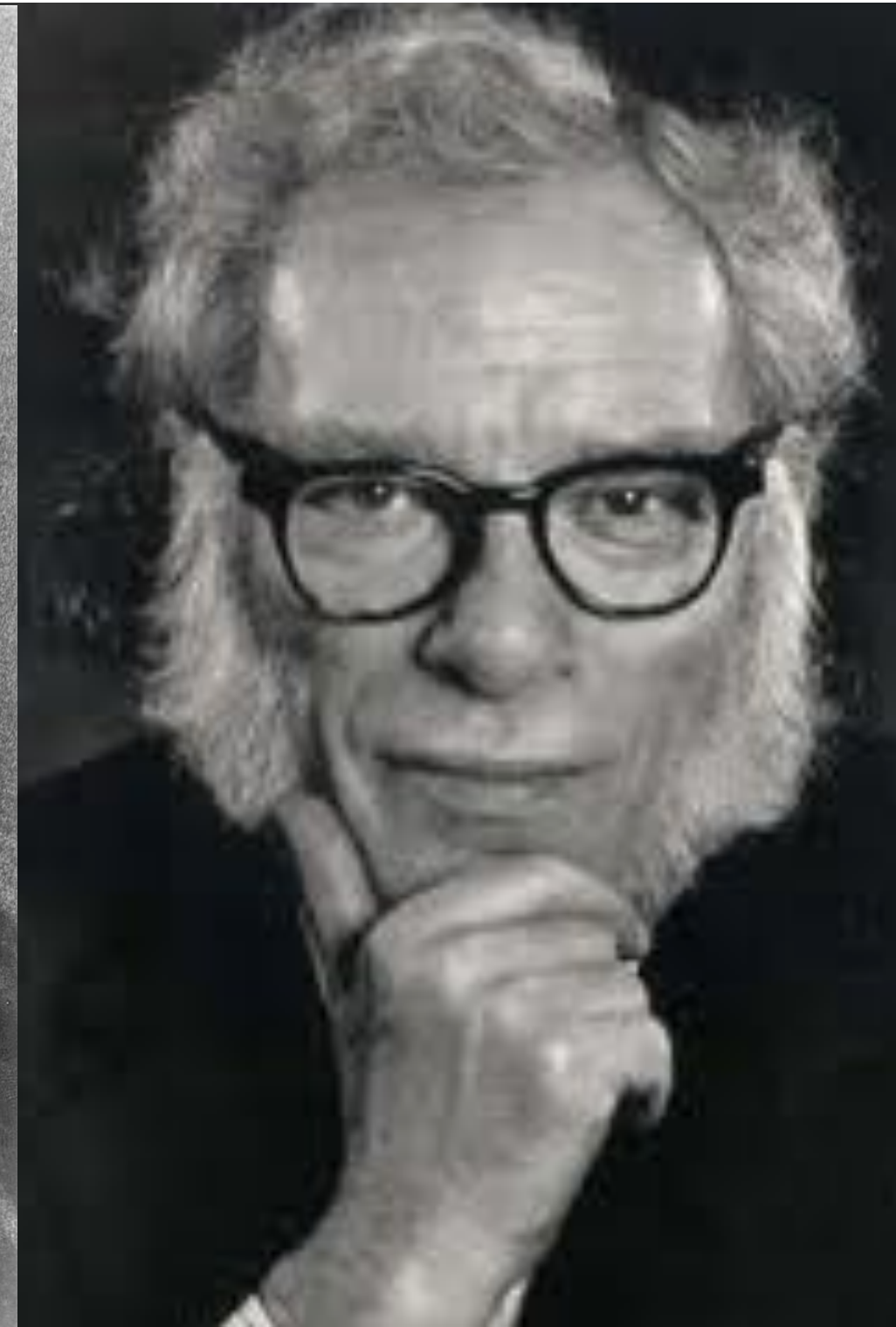
A robot may not injure a human being or, through inaction, allow a human being to come to harm.

A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.

A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.



1920-1992



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History of Philosophy
without any gaps

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<http://brainsciencepodcast.com/>



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