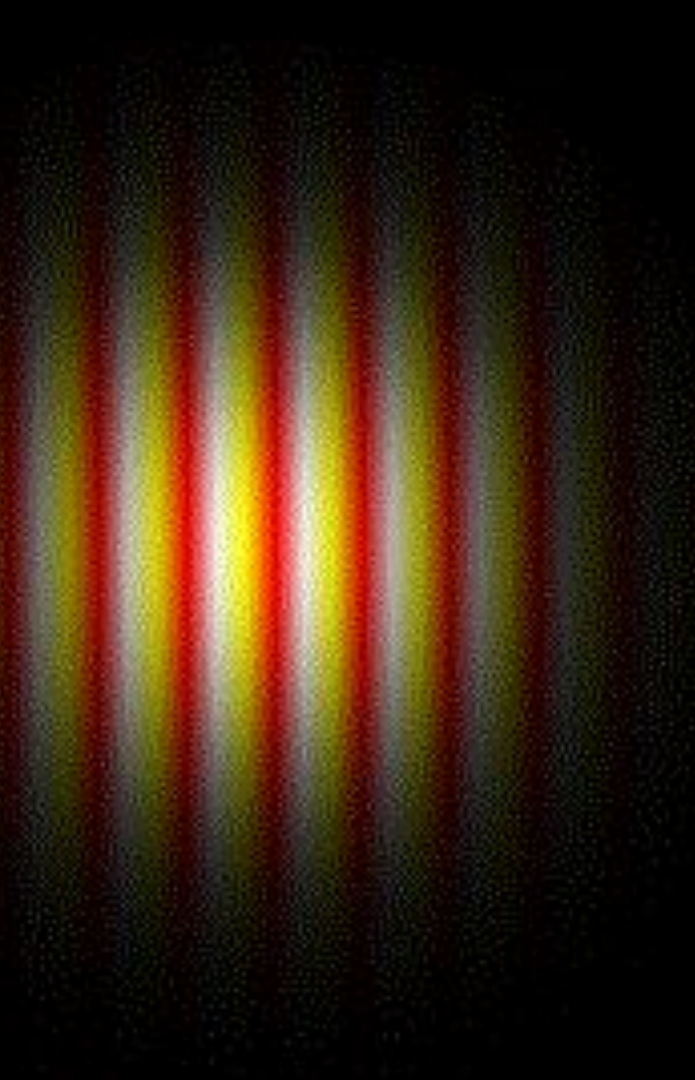
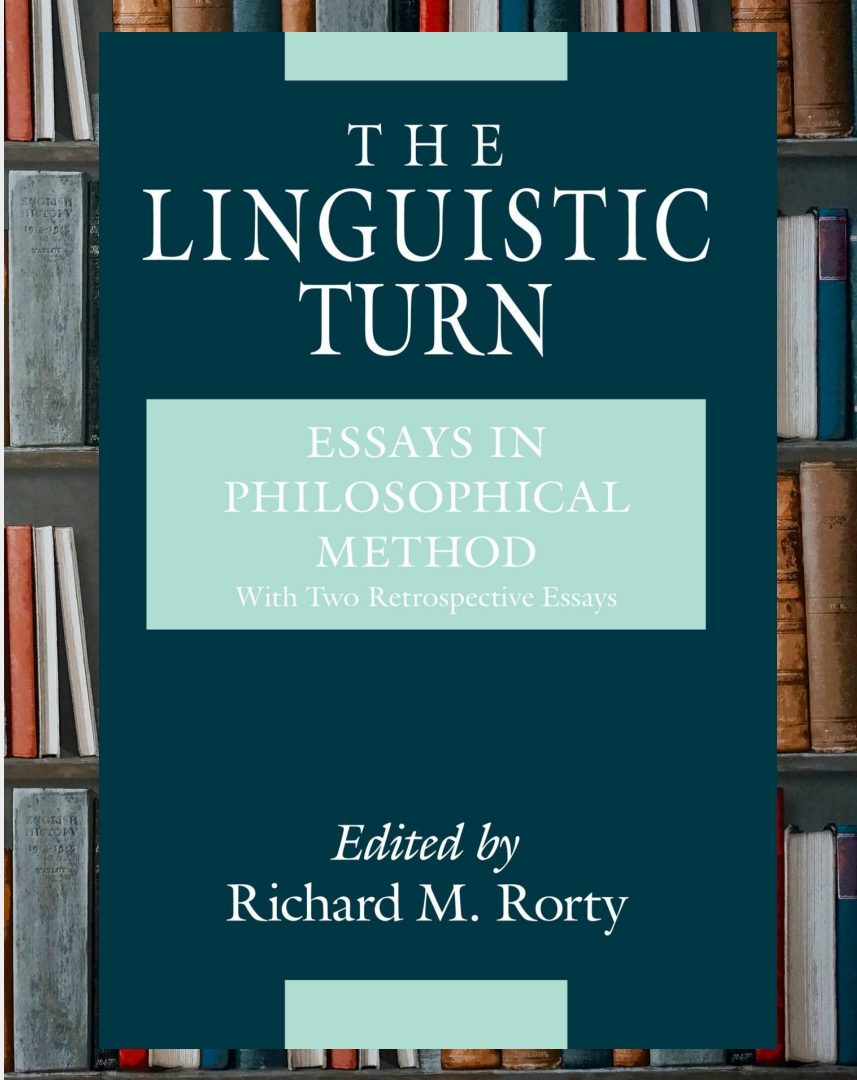


Reductio Ad Absurdum

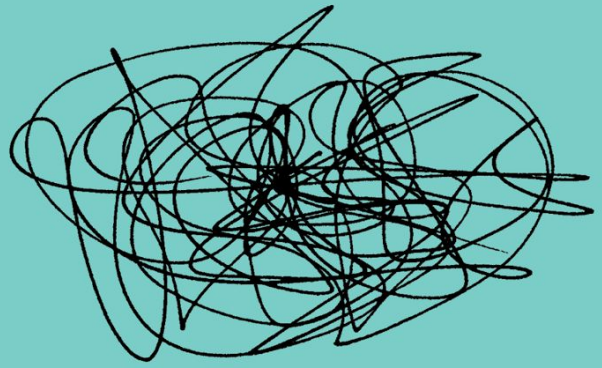
Storytime!

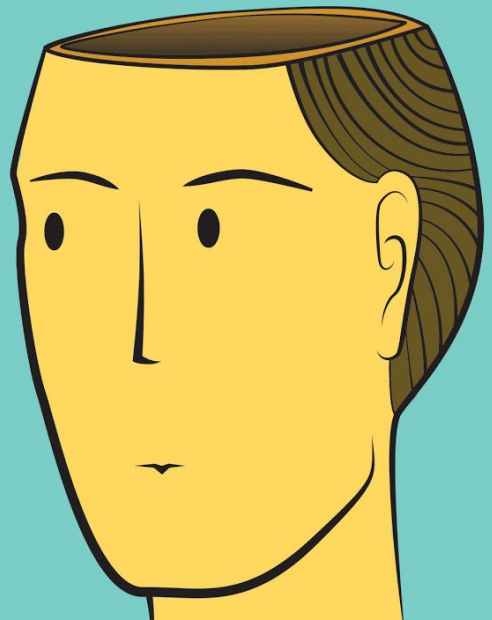
After Frege invented his formal notation, there were great advances in the field of Logic.

In fact, within a few decades there was a “linguistic turn” in Philosophy, and (almost) the whole discipline seemed to shift towards the analysis of language...



But theorists quickly saw that formal systems can also be used in the study of...



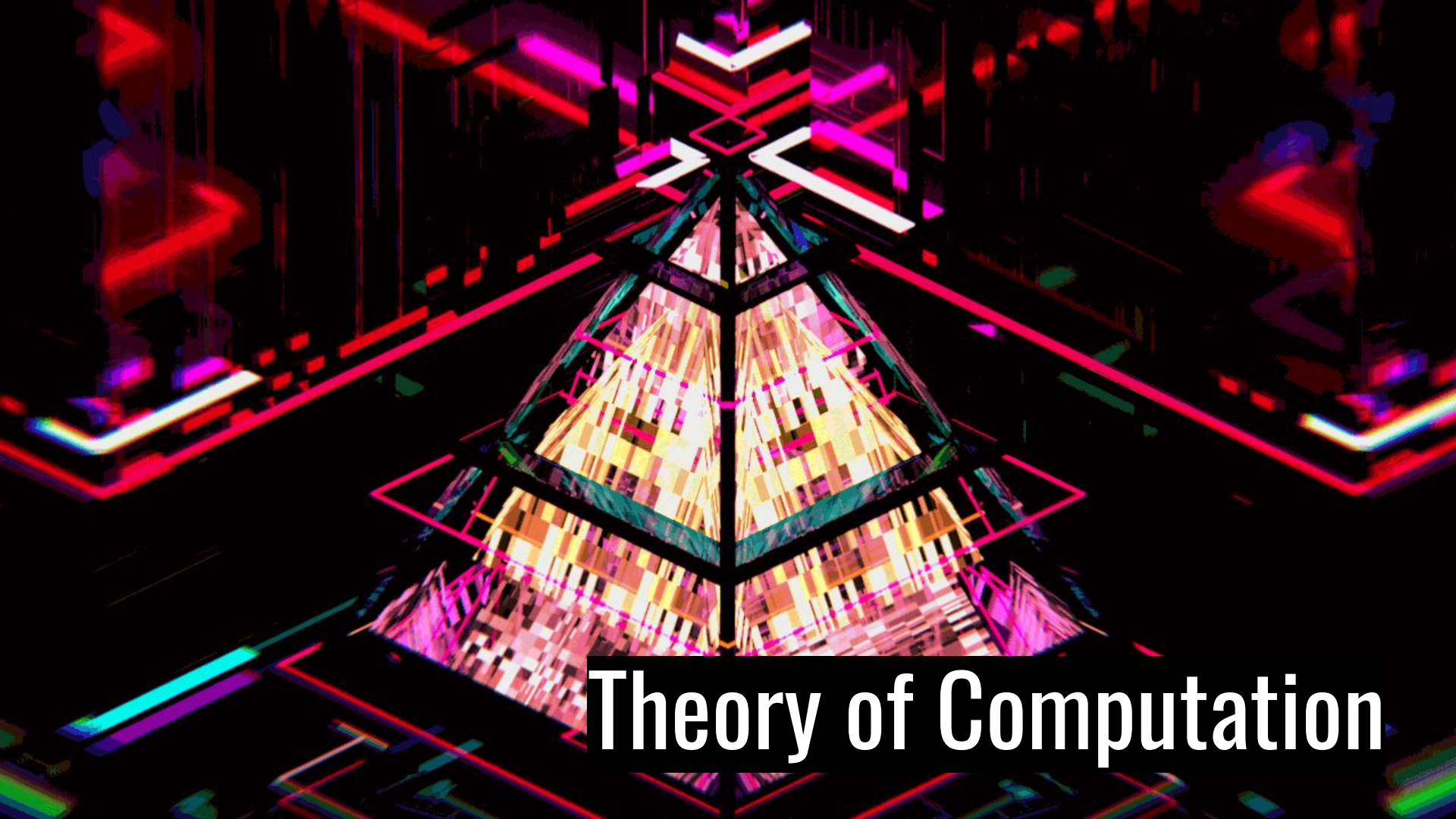


INFORMAL LECTURES
ON
FORMAL SEMANTICS

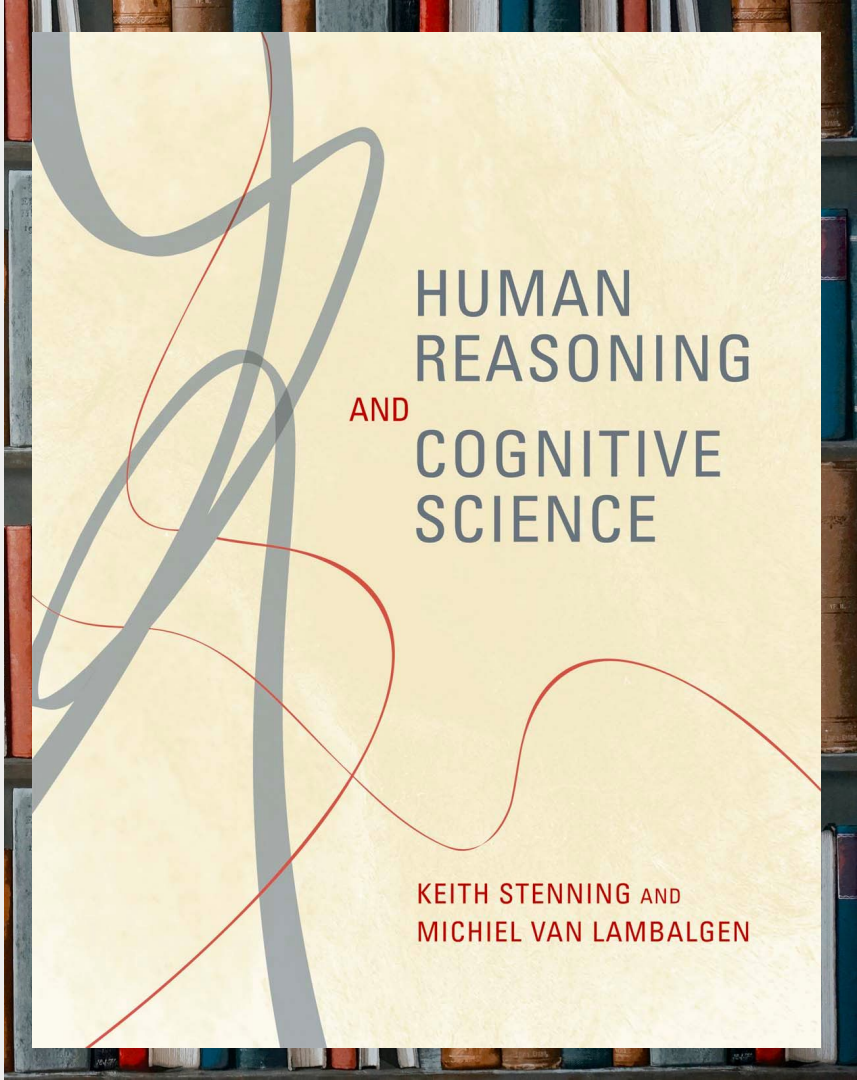
Emmon Bach

Linguistics

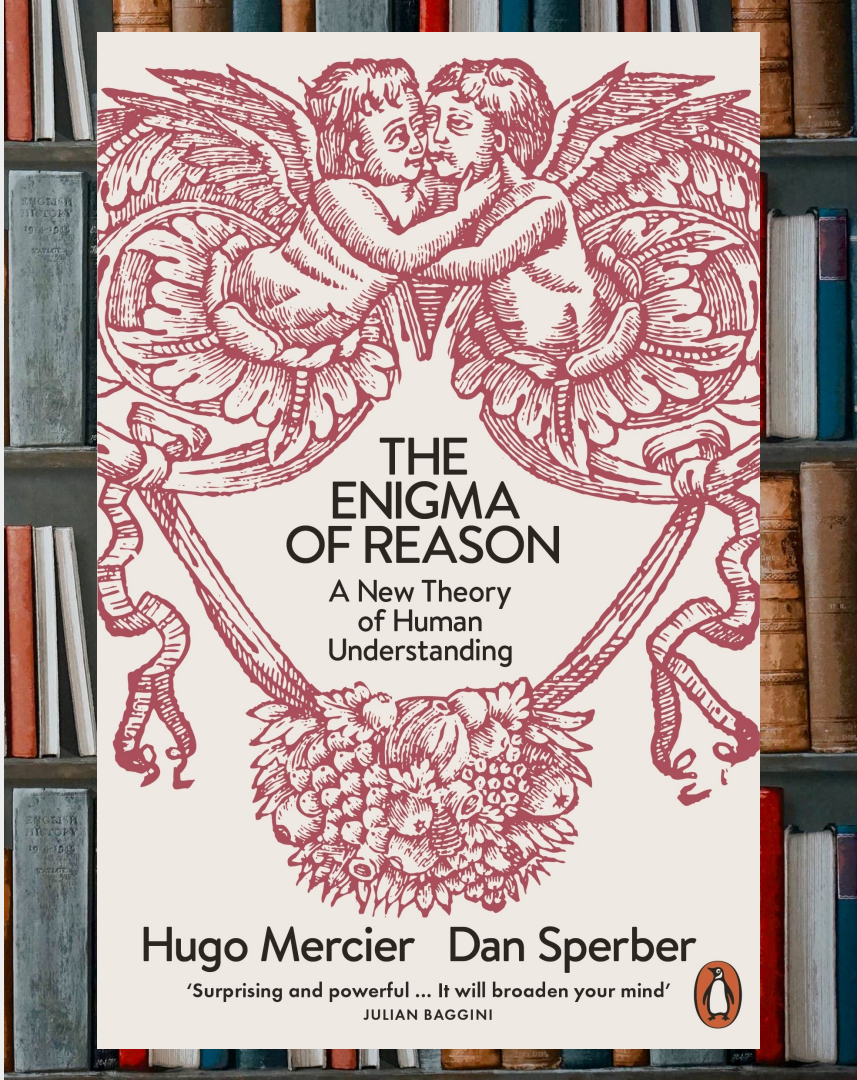
Mathematics


Theory of Computation

It even influenced the field of psychology since, throughout history, most theorists assumed a close relationship between how our cognition works and formal logic (see Stenning and Van Lambalgen 2012).



It has only been since the mid-20th century that theorists have become skeptical about whether that's actually how we reason (see Mercier and Sperber 2017).



Which two cards do you need to turn to test this statement: "A card that has a vowel on one side has an even number on the other side." The cards are:

A. E, 4
B. E, 7
C. K, 4
D. K, 7

Part of the reason for this is that even students at high-ranking universities (e.g., Harvard) score abysmally low (~25%) on standard logic exercises (Cosmides 1989).

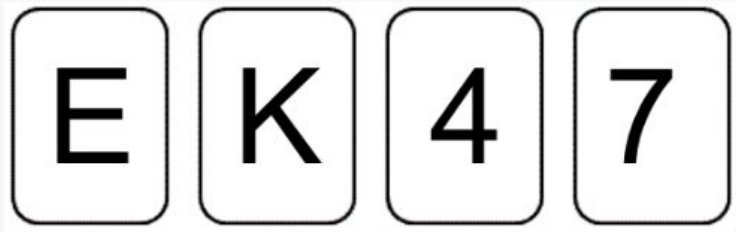
Scores are even lower if subjects are “incentivized” with a monetary reward (Johnson-Laird & Byrne 2002).

Cognitive Bias of the Day

NOT REALLY

Students asked to solve the Wason four-card selection task in groups can score as high as 80% of correct answers (Moshman and Geil 1998).

Which two cards do you need to turn to test this statement: "A card that has a vowel on one side has an even number on the other side." The cards are:



A. E, 4
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