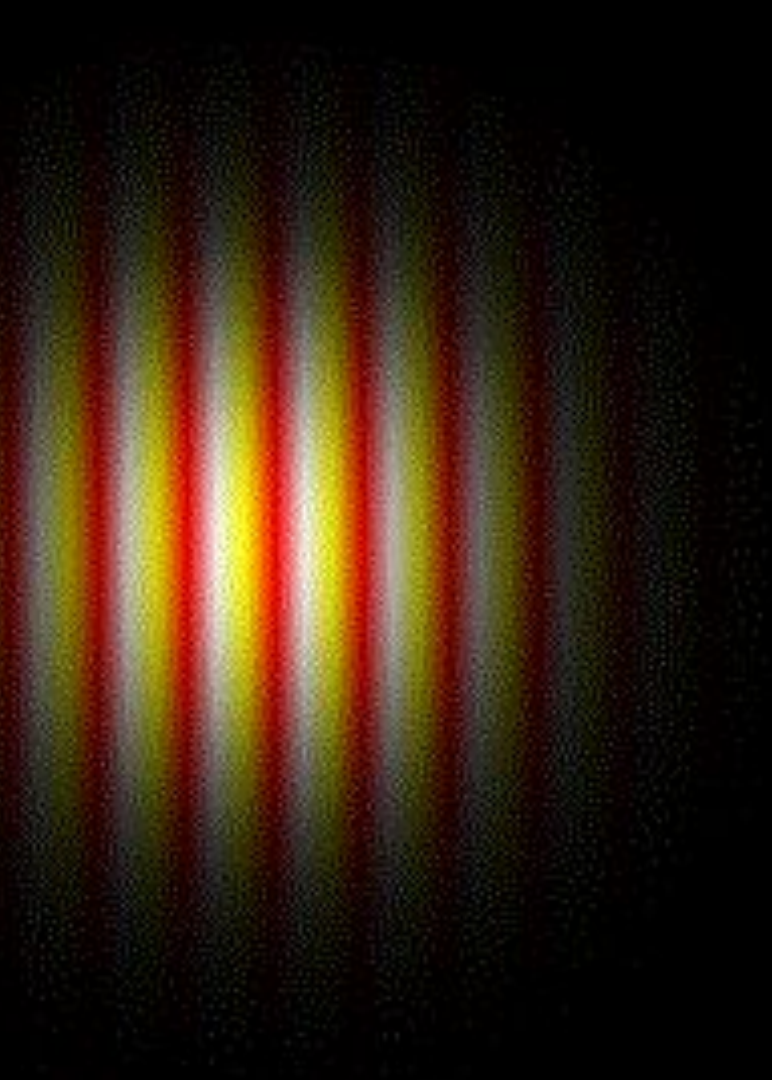
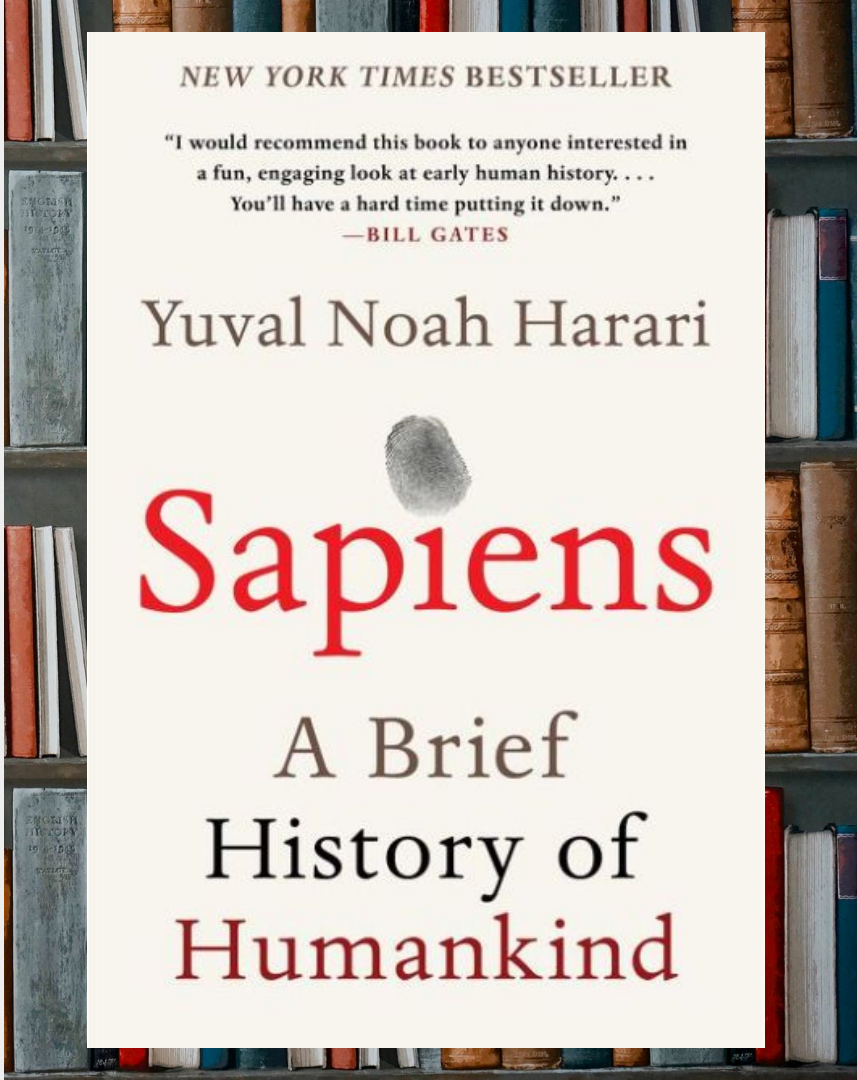


Endless Night

The genus *homo* has been around for about 2 million years.

During that time there has been various species of *homo* (e.g. *homo habilis*, *homo erectus*, *homo neanderthalensis*, etc.) which have overlapped in their existences.

They are all now extinct save one: Sapiens (see Harari 2015, chapter 1).



Homo sapiens emerged between 300,000 to 200,000 years ago.

By 150,000 years ago, Sapiens had already populated Eastern Africa.

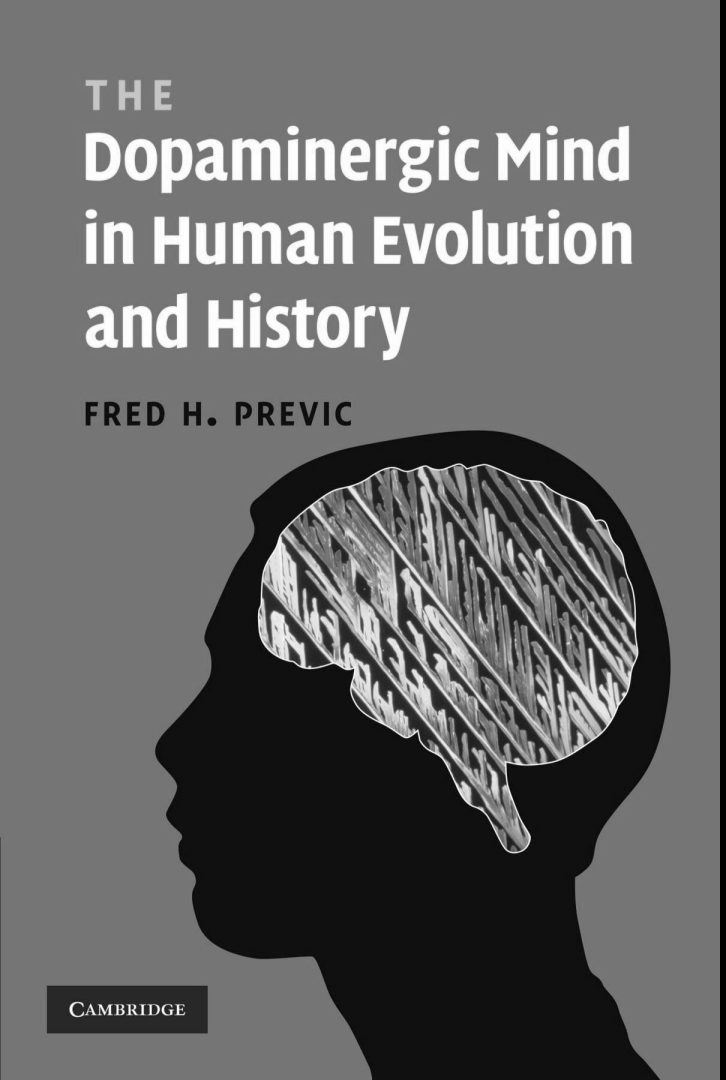
About 100,000 years ago, some Sapiens migrated north but were beaten back by Neanderthals.

This has led some researchers to believe that the neural structure of those Sapiens (circa 150,000 years ago) wasn't quite like ours yet.

70,000 years ago they migrated again and this time beat out the Neanderthals.

It was this period, from about 70,000-30,000 years ago, that constitutes the cognitive revolution.

The advanced language skills that were **somehow** acquired during this period allowed Sapiens to build robust social groups, via the use of social constructs, and dominate their environment, to the detriment of other *homo* species (see Harari 2014, chapter 2).



What brought about the cognitive revolution is disputed.

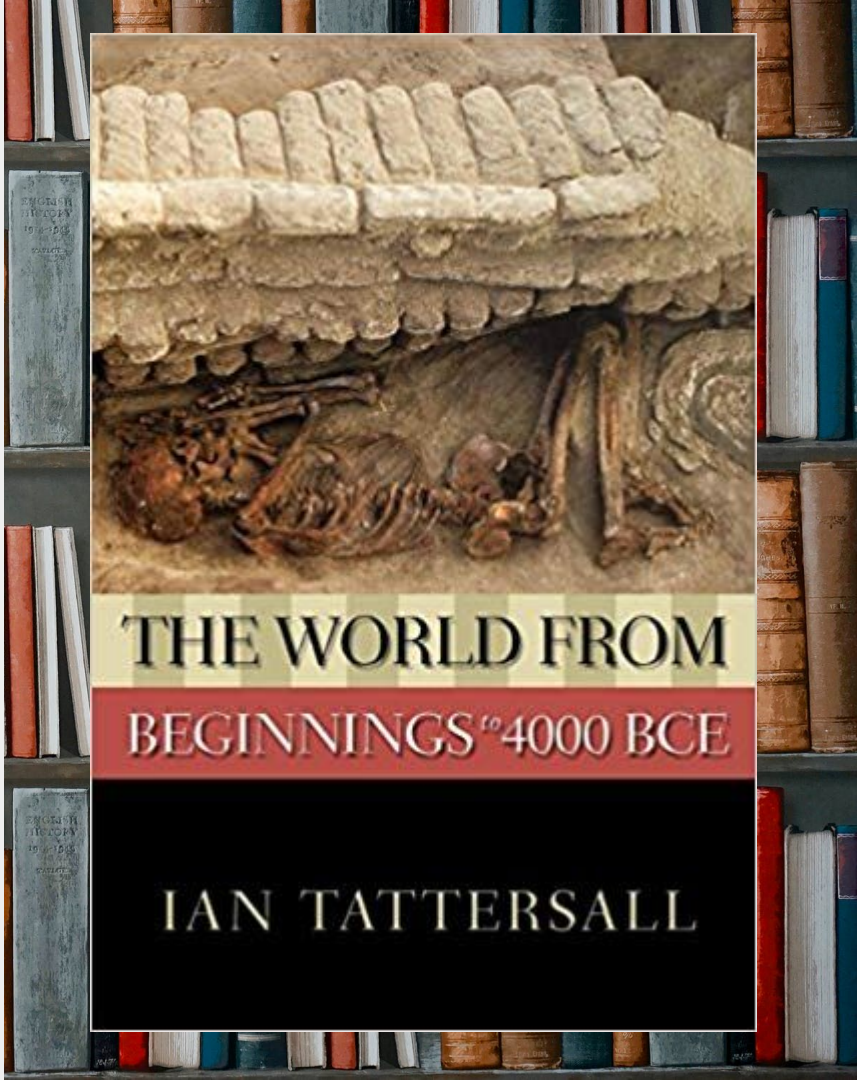
In fact, some argue that it doesn't strictly-speaking exist.

What is indisputable, though, is that between 15,000 to 12,000 years ago (the so-called Neolithic), Sapiens' capacity for **collective action** increased dramatically again.

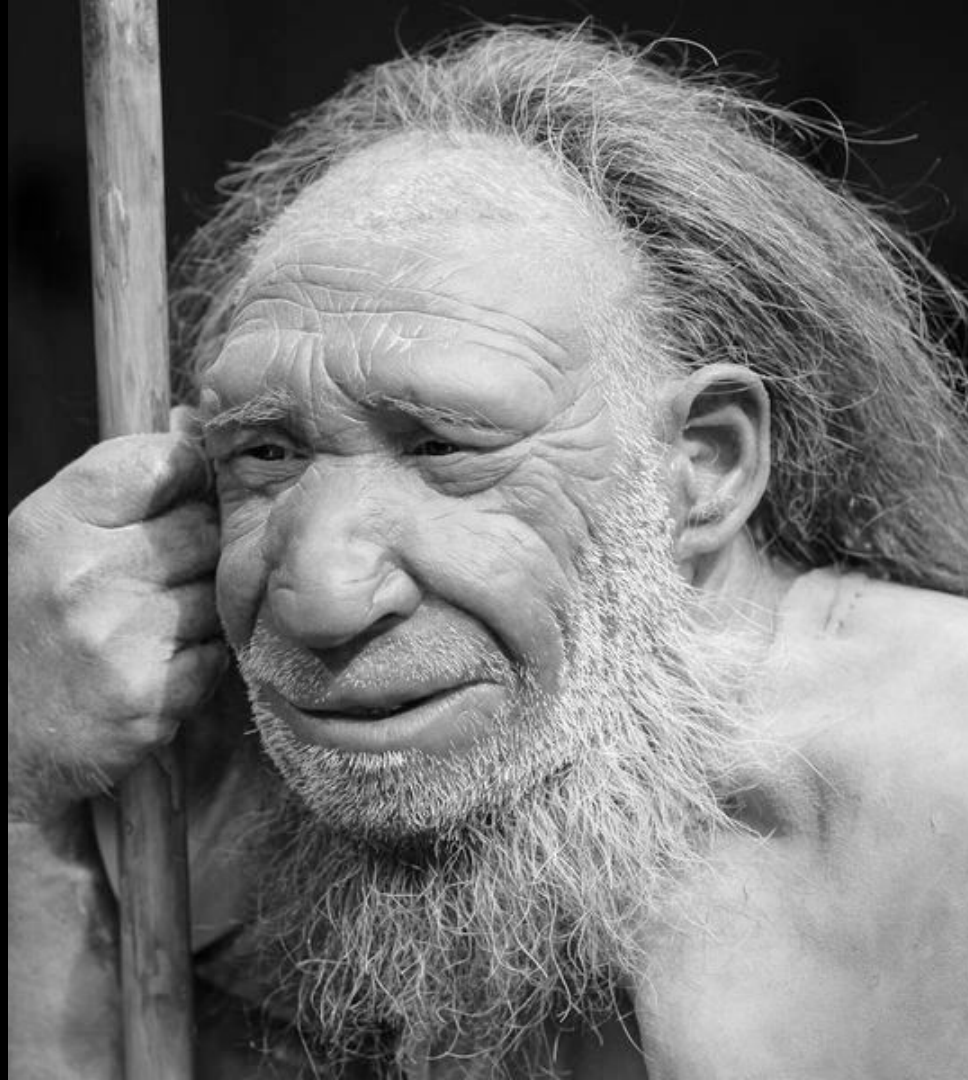
Two Puzzles:

1. What happened that allowed the successful migration of *sapiens* 70,000 years ago?
2. What happened that allowed *sapiens* to once again scale up in complexity ~15,000 years ago?

Ian Tattersall (2008) dedicates a chapter to the migrations of *Homo sapiens* out of Africa and to their encounters with other hominids.

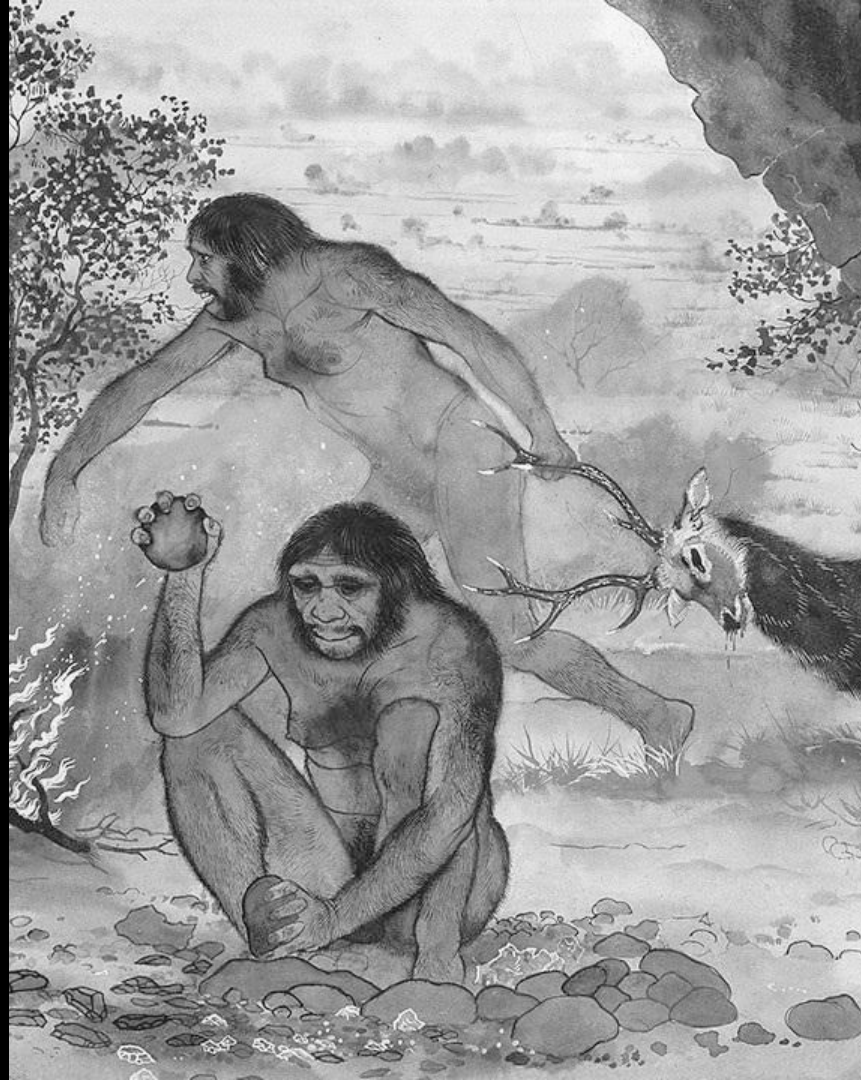


“So what, exactly, happened when the clearly language-bearing Cro-Magnons entered the domain of the presumptively non-language-bearing Neanderthals some 40,000 years ago?



“There may have been instances of what one might delicately call ‘Pleistocene hanky-panky’ during the fairly short period when the two species shared the European subcontinent; but it is highly improbable that there was any significant, large-scale integration of the two gene pools...

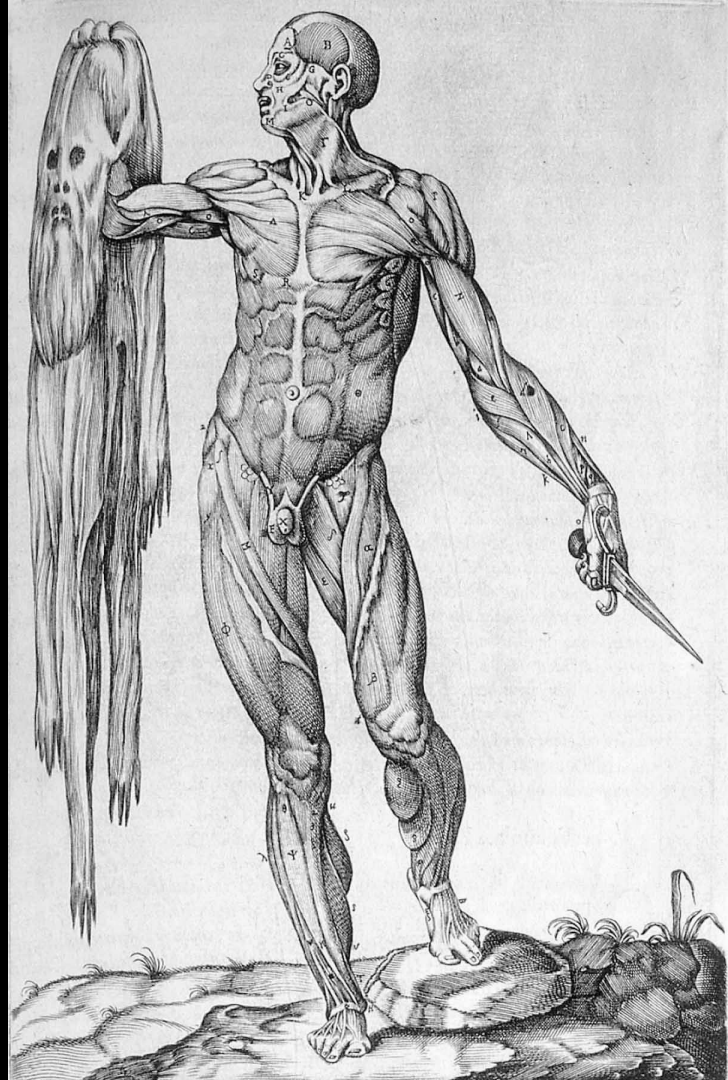
“[So in general] there are two major possibilities...
Two hominids sharing the same landscape would almost certainly have found themselves in competition...
If this was the case, the disappearance of the Neanderthals would suggest that they were simply outcompeted by *Homo sapiens*...

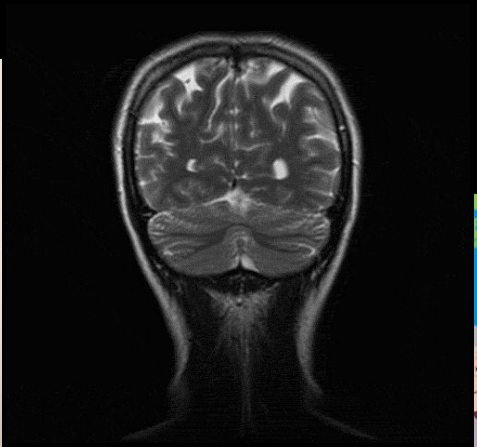


"[Alternatively] the recorded history of *Homo sapiens* has not in general been one of benevolent treatment of residents by invaders...

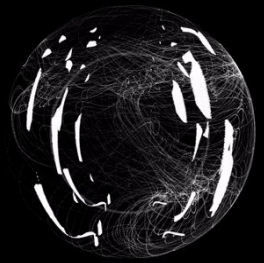
And fossil datings suggest that something similar was happening at about the same time to *Homo erectus* in eastern Asia—as presumably it was to hominids in various other parts of the world...

Many species of hominids “most likely met [their] end at the hands of *Homo sapiens*” (Tattersall 2008: 104-6).



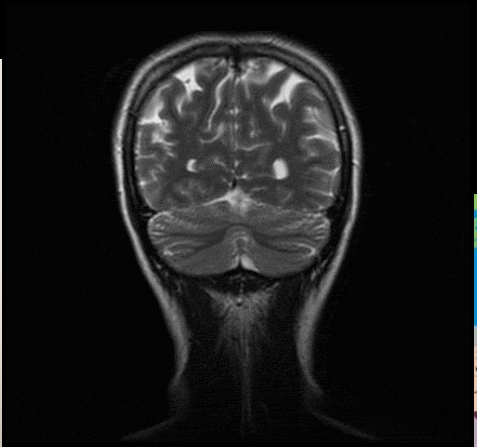



ZOMBIELAND



Experts on text interpretation (e.g., Ricoeur 2007) argue that in order to understand a text you must take into consideration:

- the historical background in which the text was written,
- how this historical background affected the author,
- the historical background of the reader (i.e., you), and
- how your historical background affects you.

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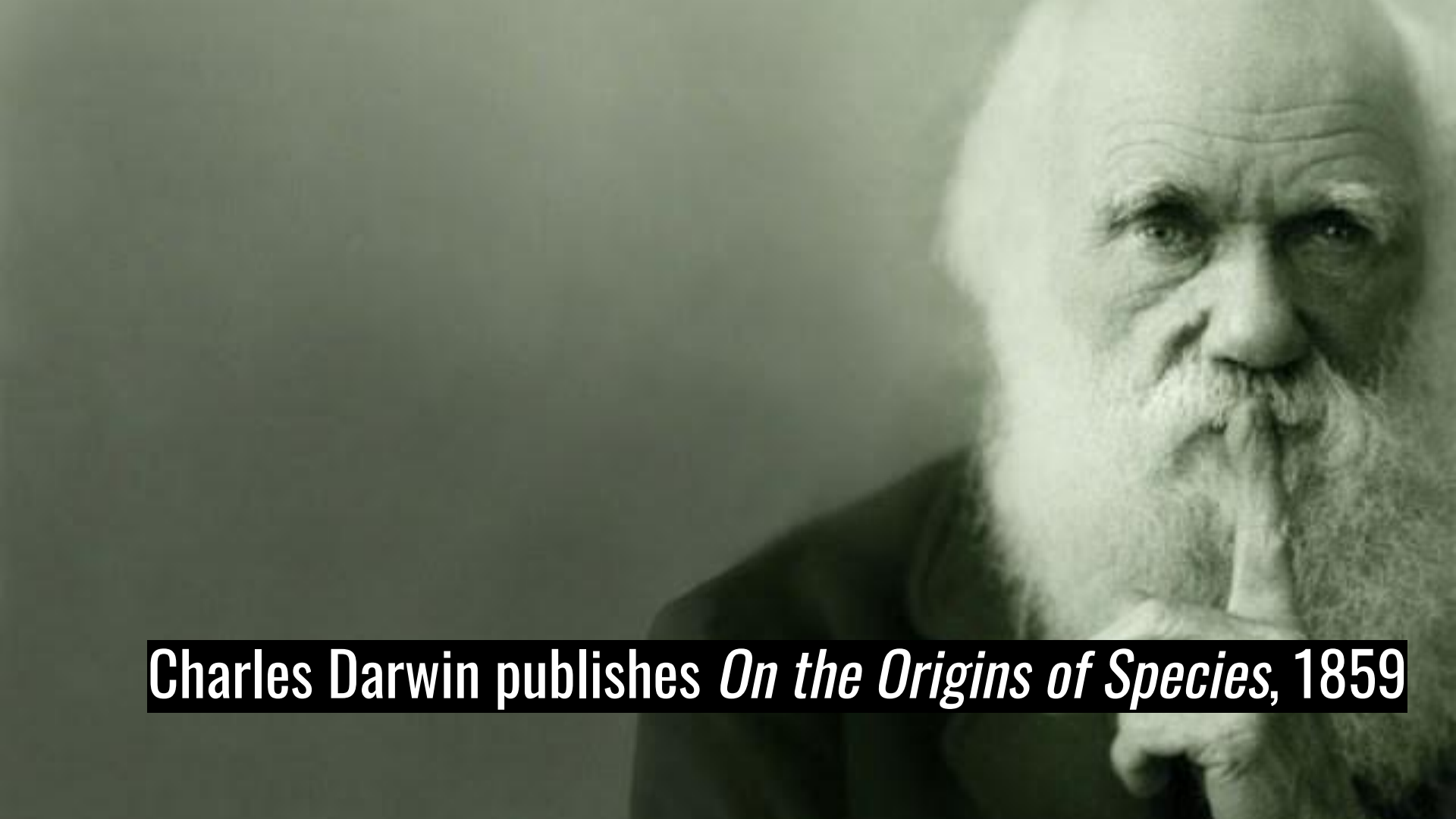
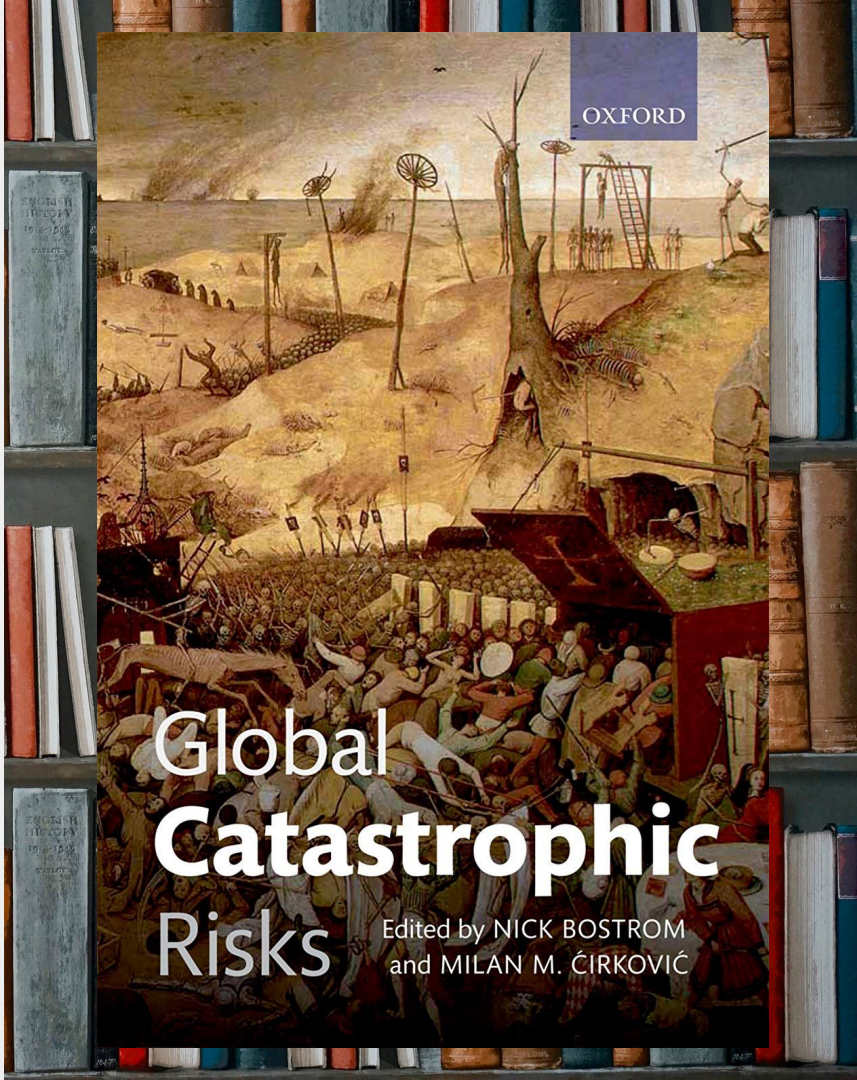
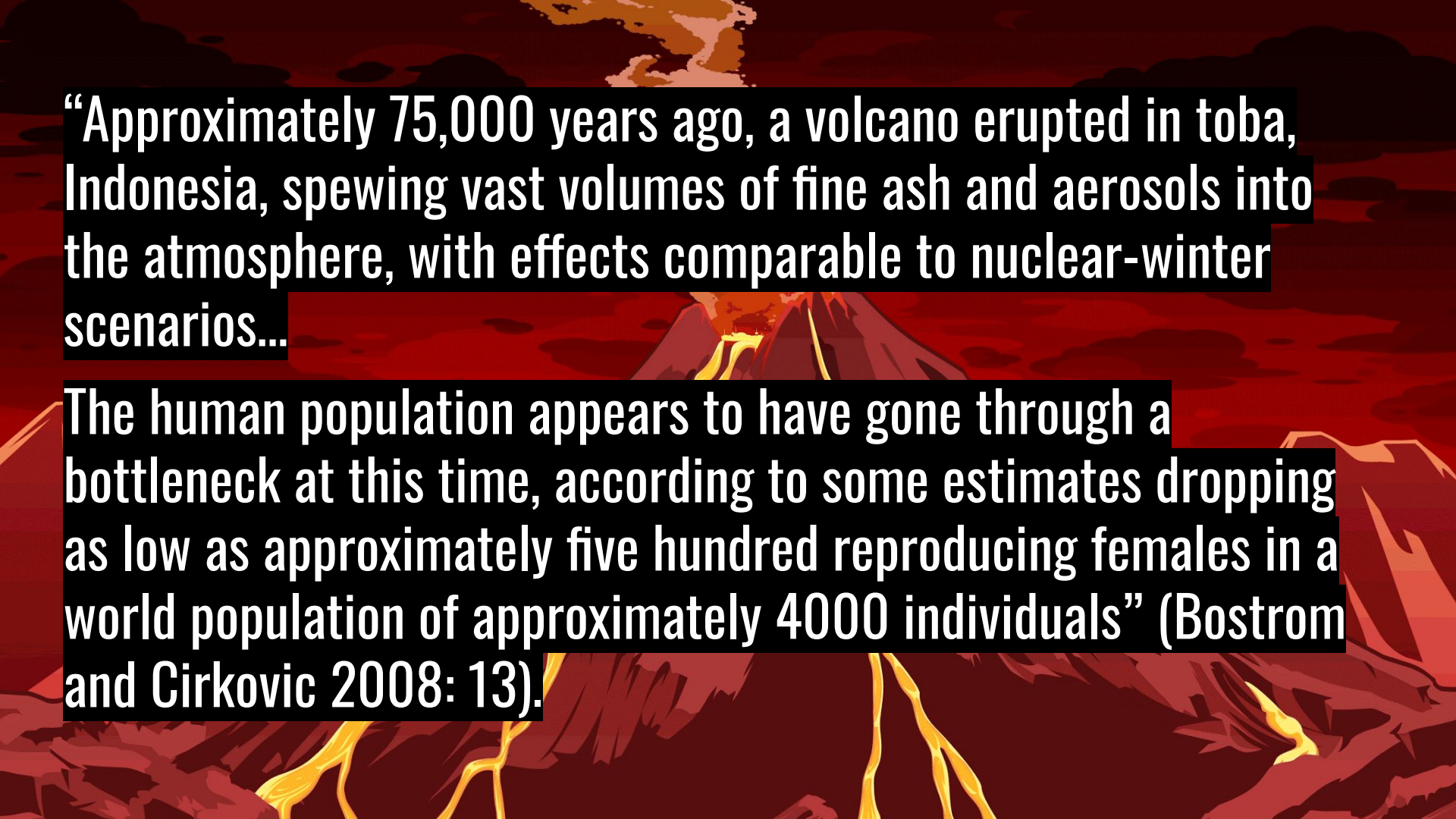

Charles Darwin publishes *On the Origins of Species*, 1859

Two Puzzles:

1. What happened that allowed the successful migration of *sapiens* 70,000 years ago?
2. What happened that allowed *sapiens* to once again scale up in complexity ~15,000 years ago?

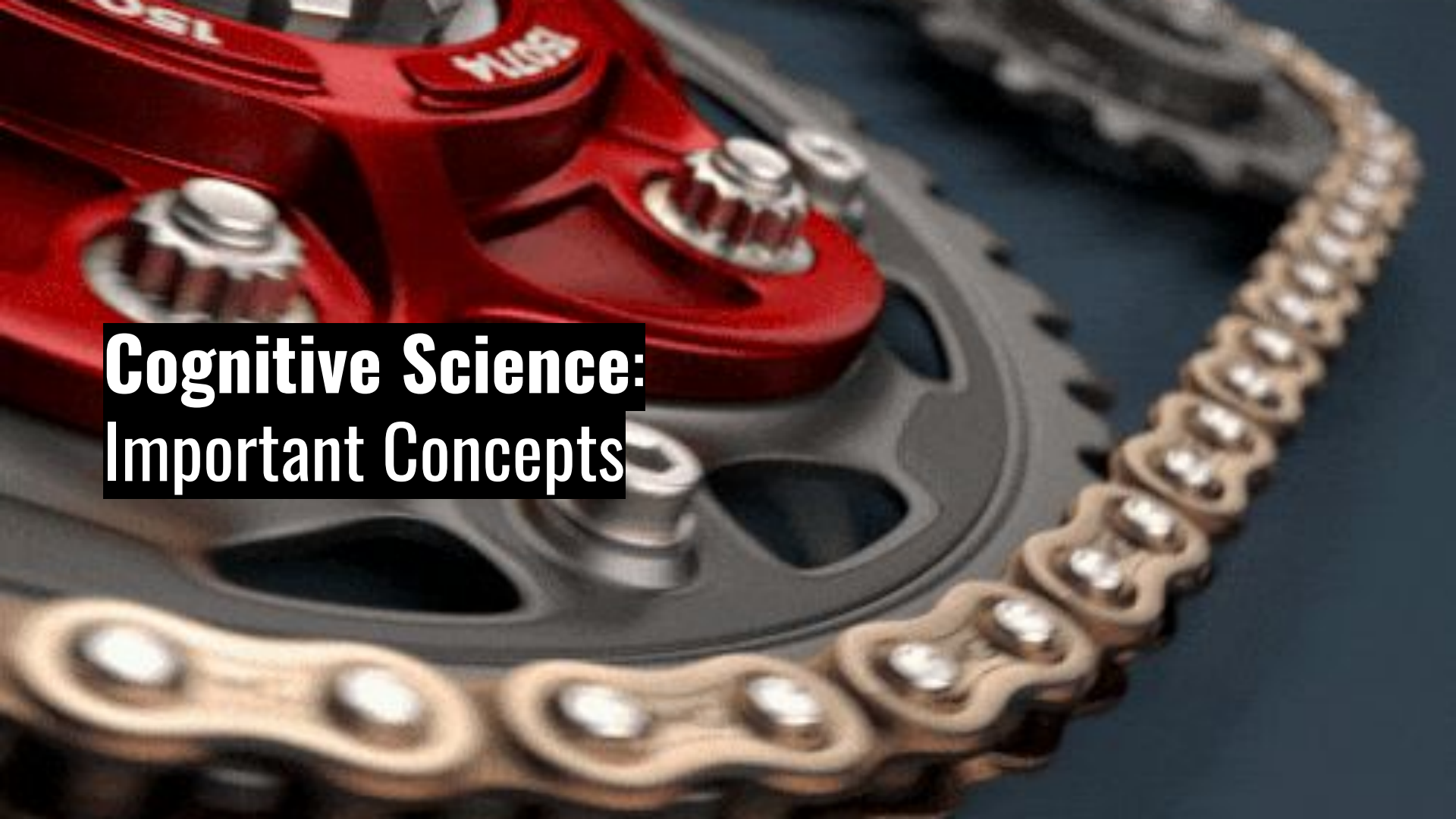
Perhaps a clue to the first question can be found in the anthropological record, in particular in scenarios where there were new environmental challenges that *sapiens* had to face and adapt to (see Bostrom and Cirkovic 2008, chapter 1).





“Approximately 75,000 years ago, a volcano erupted in toba, Indonesia, spewing vast volumes of fine ash and aerosols into the atmosphere, with effects comparable to nuclear-winter scenarios...

The human population appears to have gone through a bottleneck at this time, according to some estimates dropping as low as approximately five hundred reproducing females in a world population of approximately 4000 individuals” (Bostrom and Cirkovic 2008: 13).

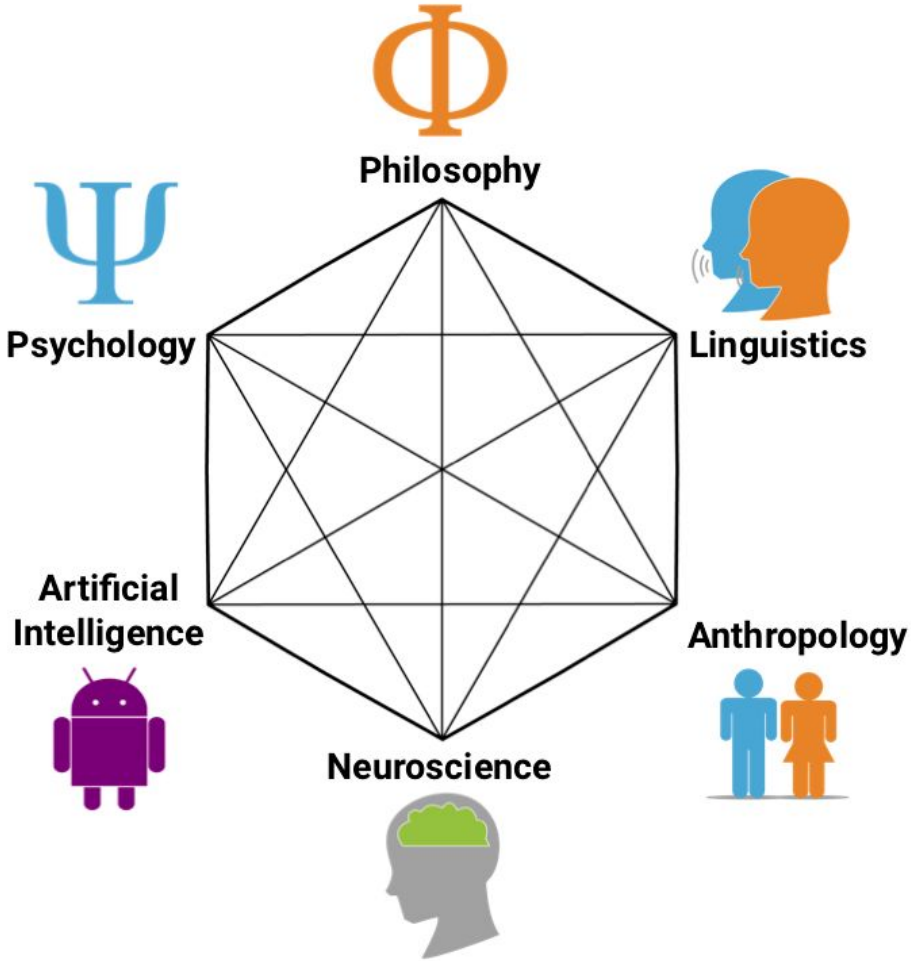


Cognitive Science:
Important Concepts

Cognitive Science

Cognitive Science is an interdisciplinary approach to the study of the mind and its functions.

It usually consists of philosophy, psychology, neuroscience, linguistics, anthropology, computer science and artificial intelligence, but can include other disciplines.


Philosophy
Psychology
Linguistics
Artificial Intelligence
Anthropology
Neuroscience

Computational Theory of Mind

Computational Theory of Mind is an umbrella term for a family of views that hold the view that mental operations are *computations*.

"So to have a mind... *just is* to be engaged in certain computational processes" (Carter 2007: 95).

brain ≈ computer (an information processing system)

cognitive capacities ≈ programs

Module

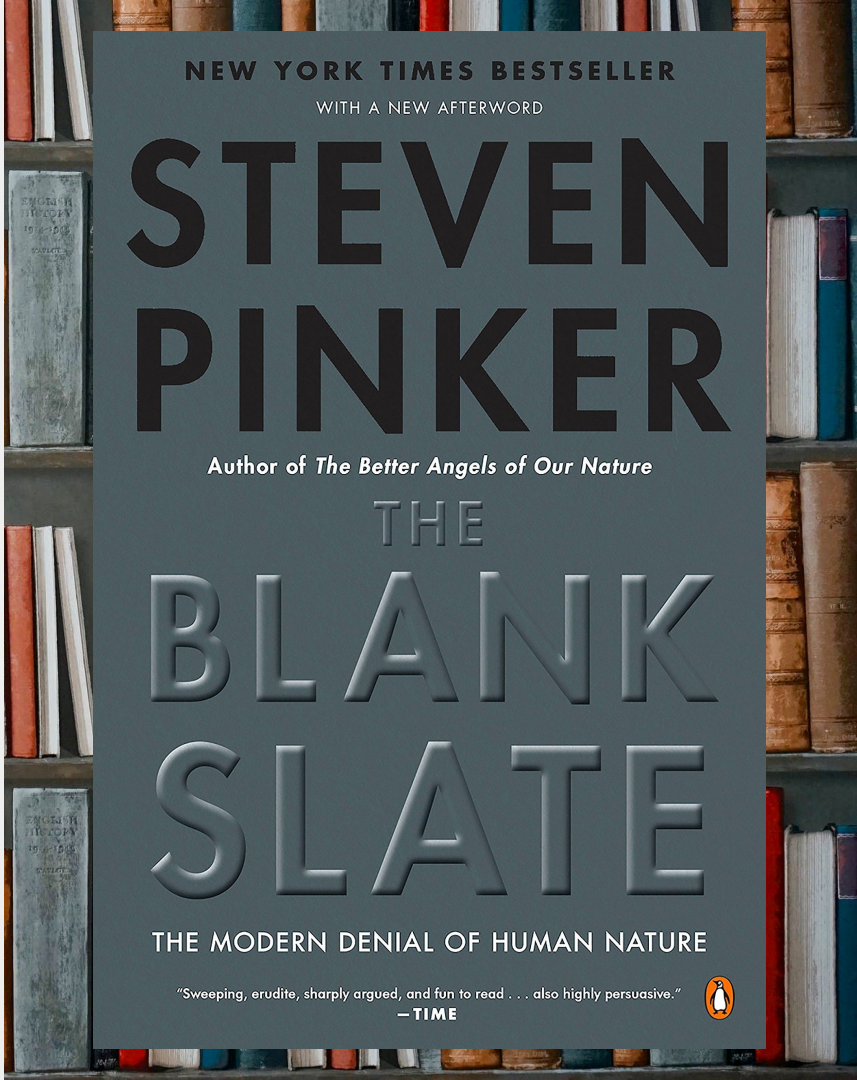
A module is an innate neural structure which has a distinct, evolutionarily-developed function.

In other words, it is a “program” that performs some cognitive function.

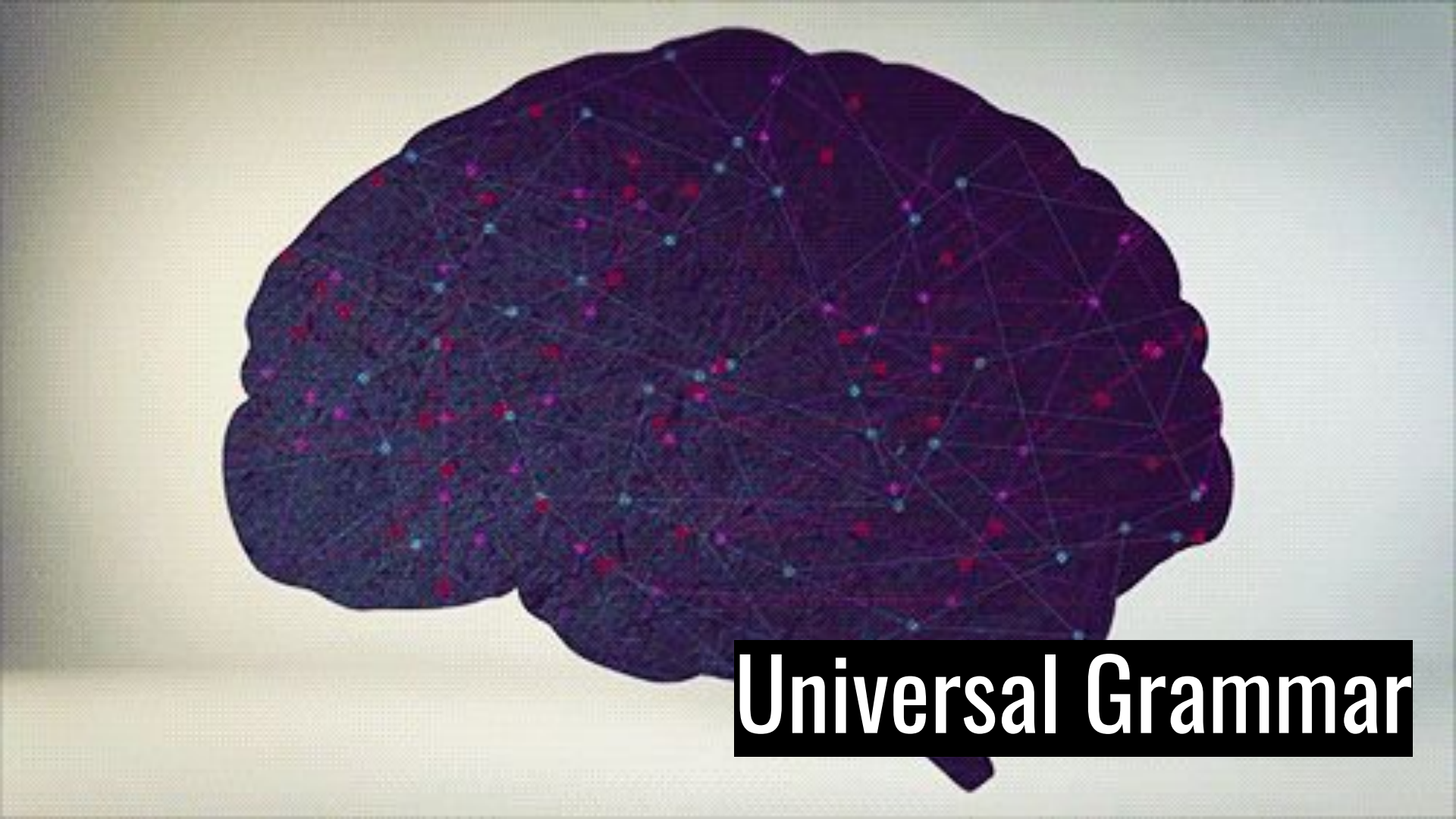
Food for thought...

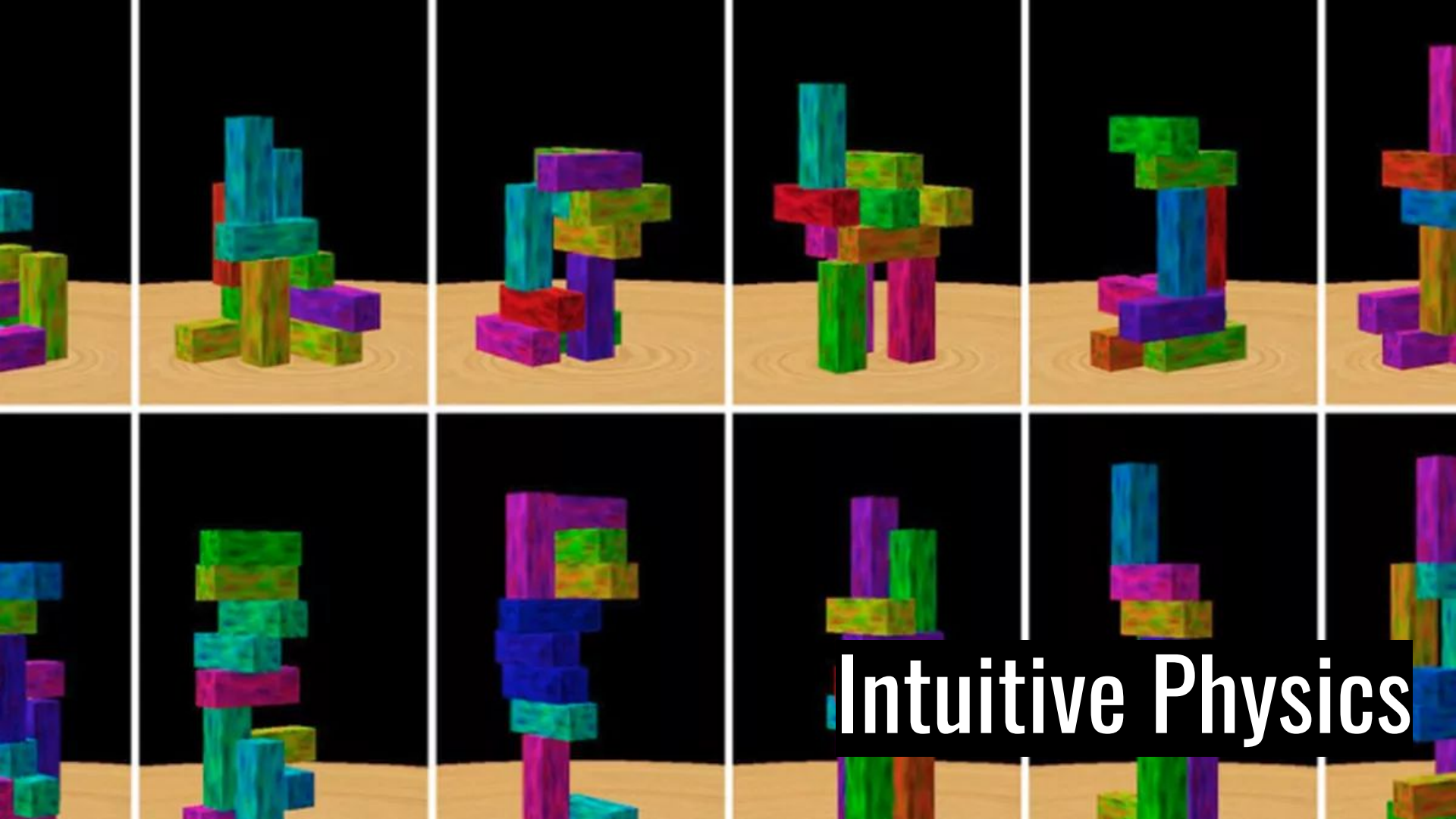
In his 2003 *The Blank Slate*, Steven Pinker dispels the commonly held view that we are born with a **blank slate**.

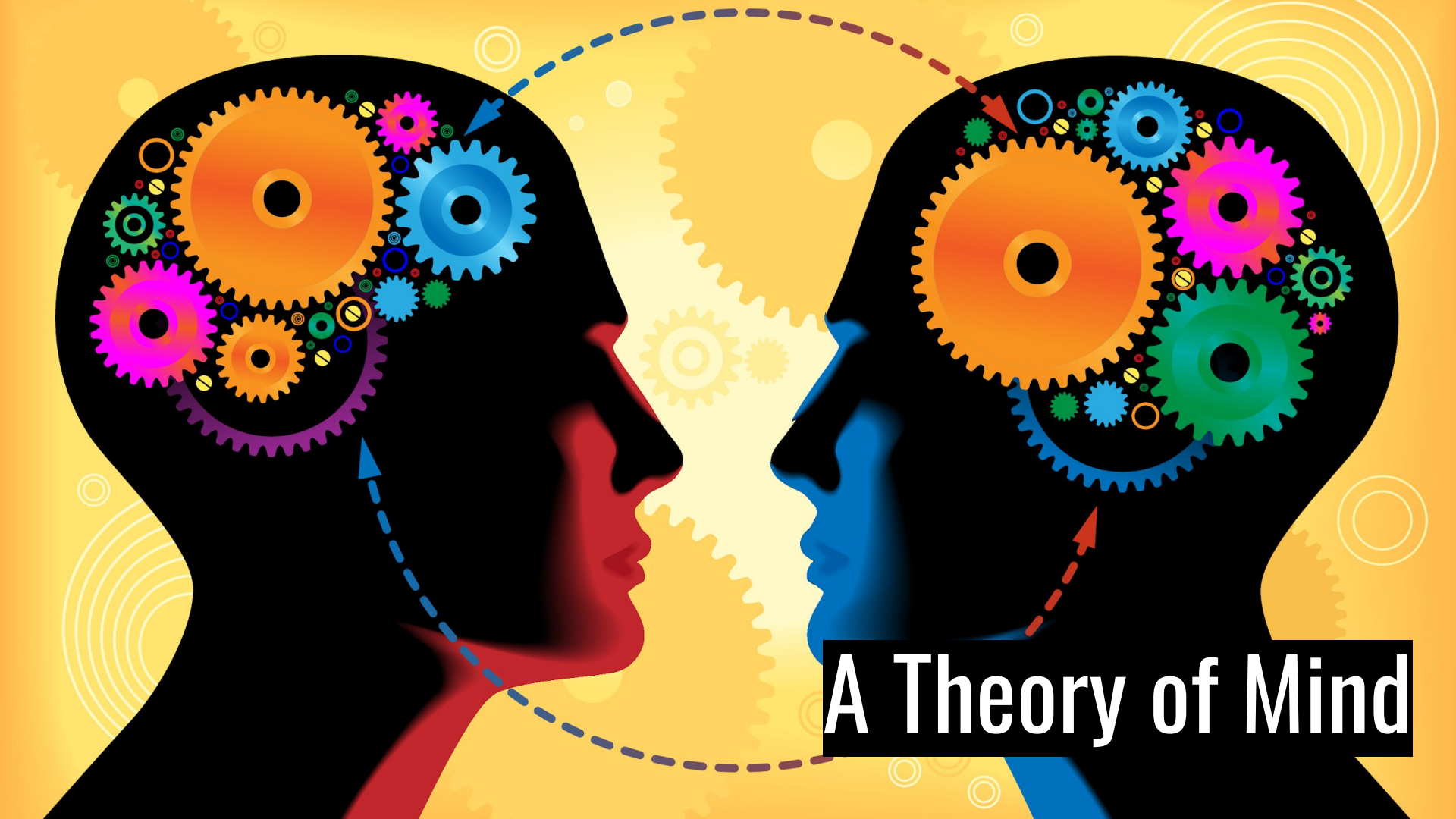
We, in fact, have several mental mechanisms (modules or programs) built into us by **evolution** (see Pinker 2003: 220-9).

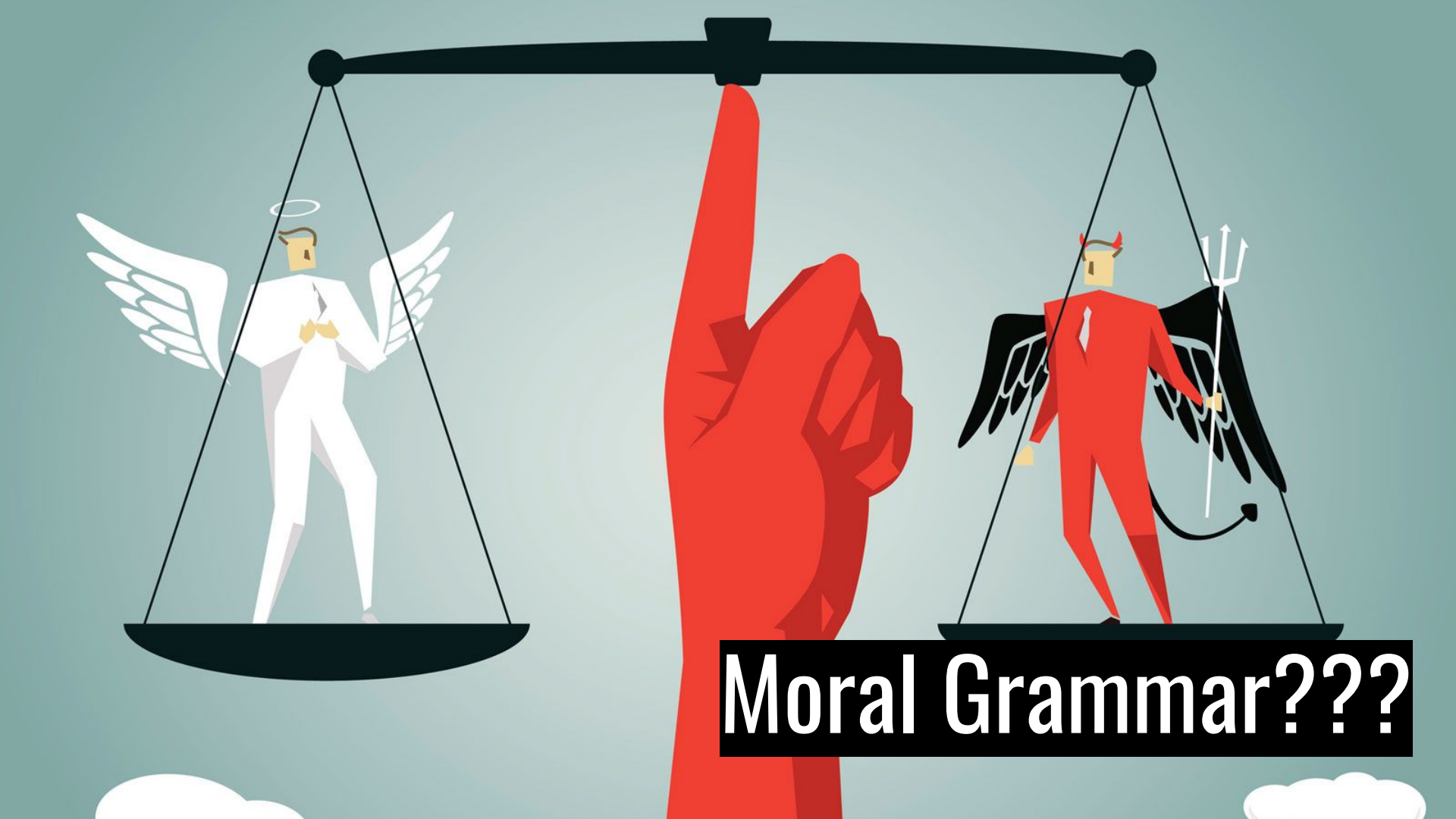


Here are some innate modules per Pinker (2003: 220-1)...

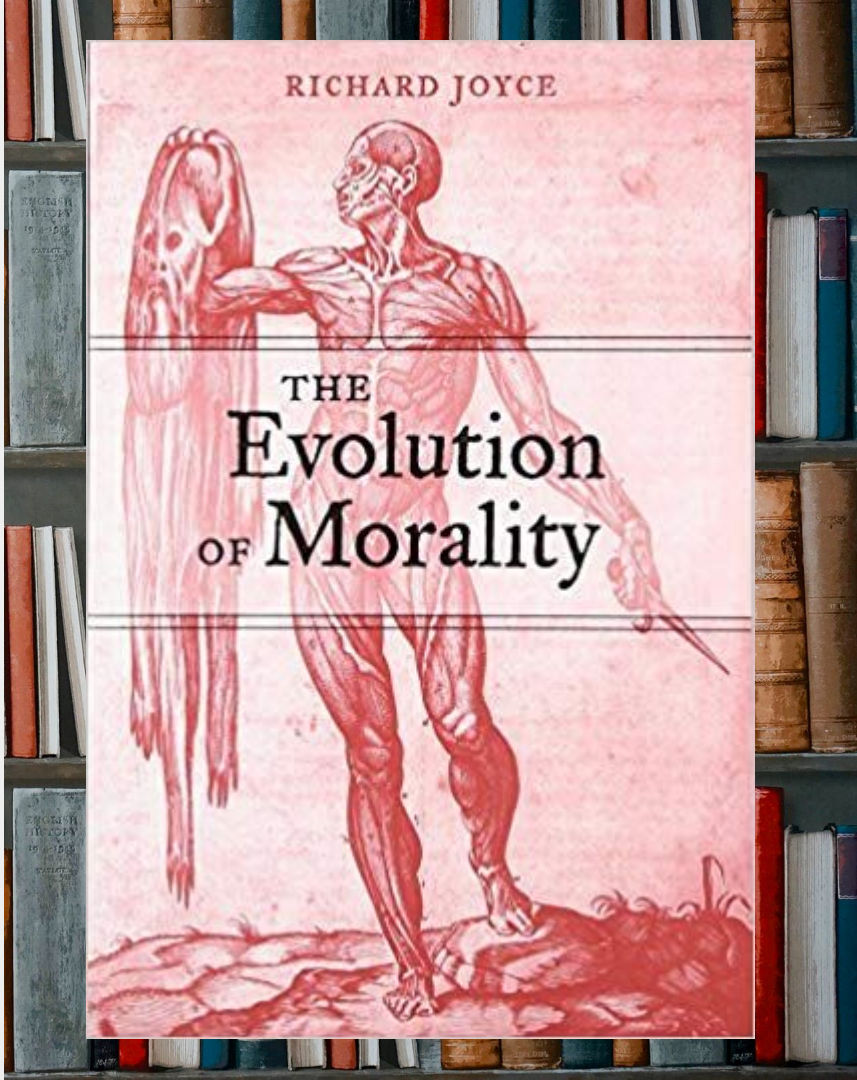

Universal Grammar


Intuitive Physics


A Theory of Mind


Moral Grammar???

Some thinkers (e.g., Richard Joyce 2007) argue that we have an **innate morality module** that was programmed into us so that we can coordinate our behavior with each other, inform each other about who's a good, say, foraging partner, and form more cohesive groups through shared norms and practices.

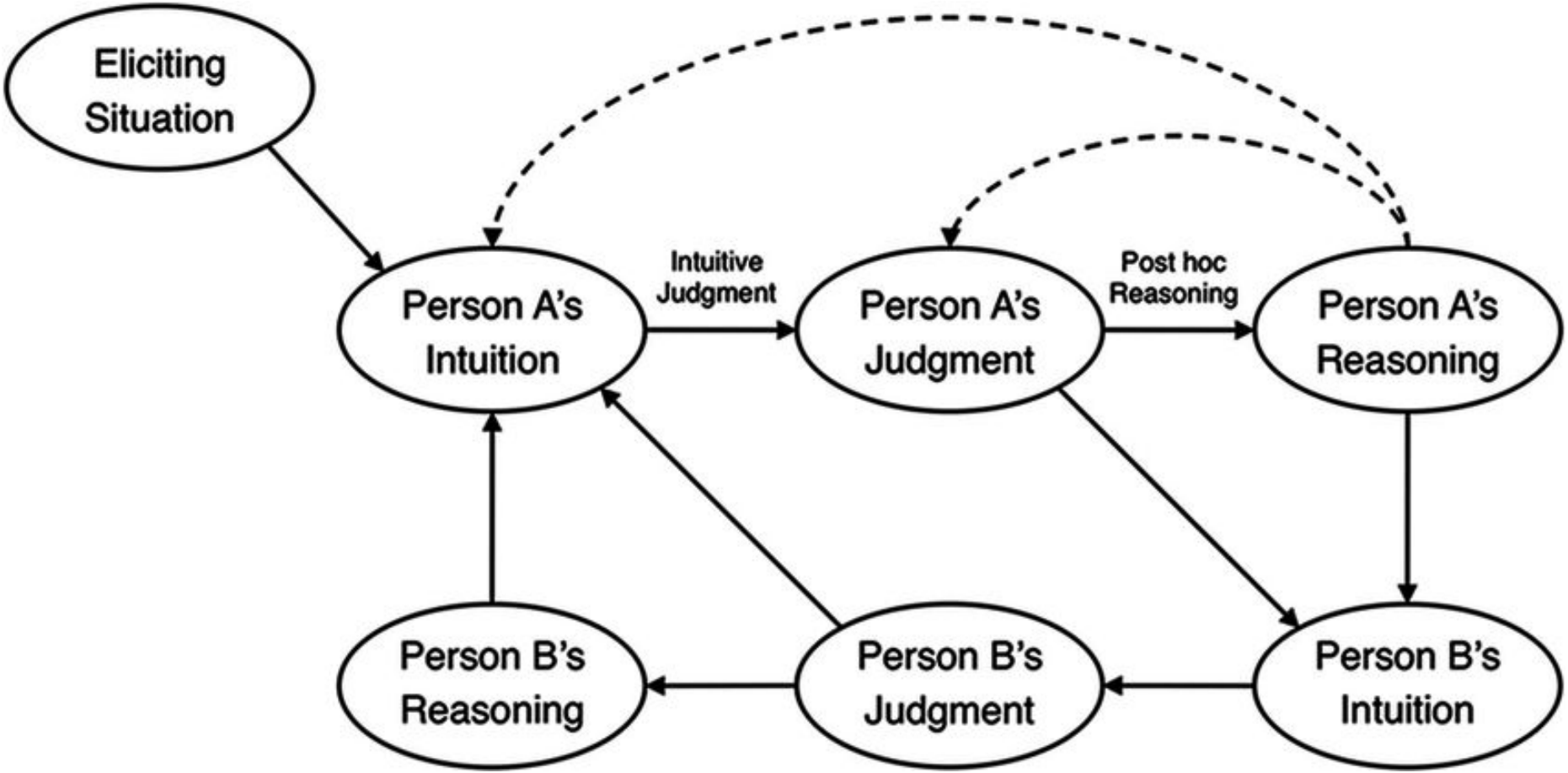


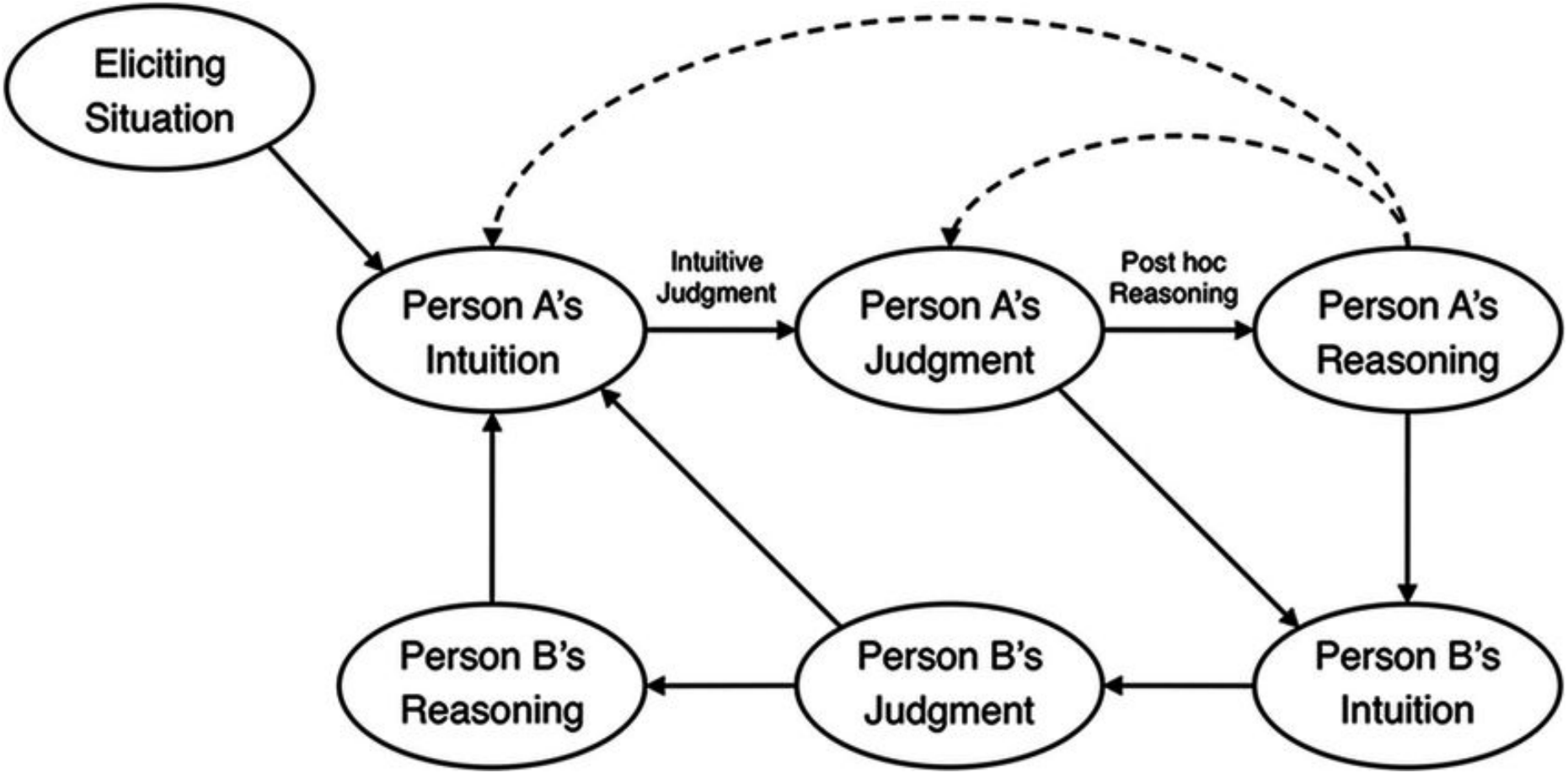
Moral Nativism

Moral Nativism is an umbrella term that includes a family of views that holds that evolutionary adaptations have given us an innate sense of morality.

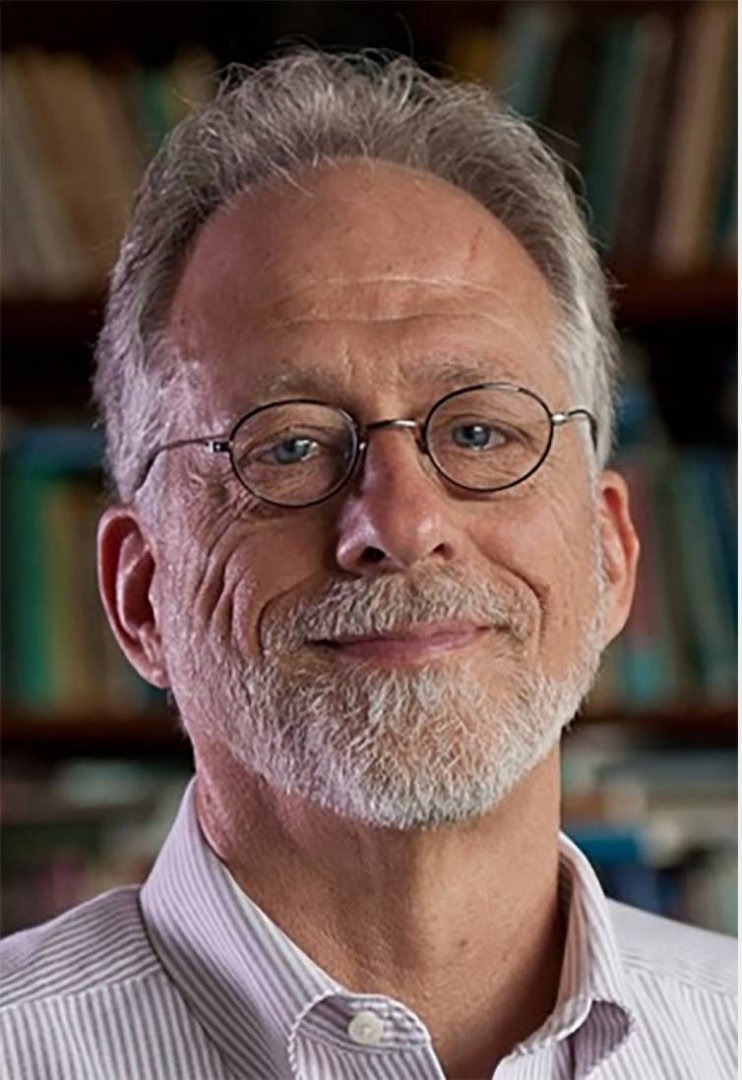
For example, Richard Joyce (2007) acknowledges that some nativists claim that evolution imparted in us **complete moral judgments** (such as *Don't harm innocent people*), he ultimately defends a variety of moral nativism that claims that we come pre-wired only with **moral concepts**, roughly *rightness* and *wrongness* (see also Joyce 2016: 132-4).

Jonathan Haidt (2012) defends a variety of moral nativism he calls the “**social intuitionist model of moral judgment**.”


Eliciting Situation
Person A's Intuition
Intuitive Judgment
Person A's Judgment
Post hoc Reasoning
Person A's Reasoning
Person B's Reasoning
Person B's Judgment
Person B's Intuition


Eliciting Situation
Person A's Intuition
Intuitive Judgment
Person A's Judgment
Post hoc Reasoning
Person A's Reasoning
Person B's Reasoning
Person B's Judgment
Person B's Intuition

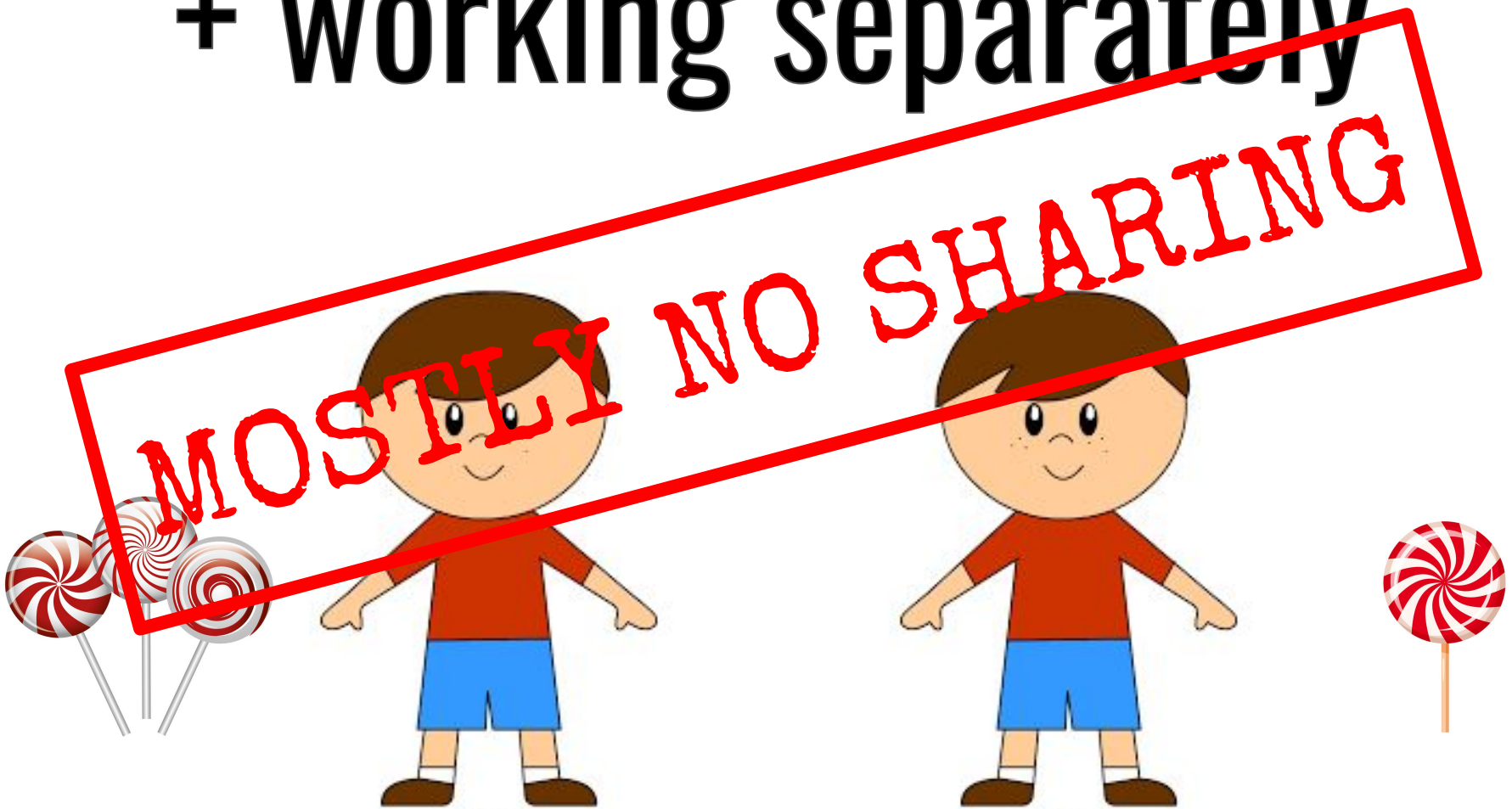
But the function of this innate moral module is inconsistent and strange...



For example, Tomasello (2016: 71) hypothesizes that we have an intuitive sense of **just rewards** but it only kicks in after collaborative activity.

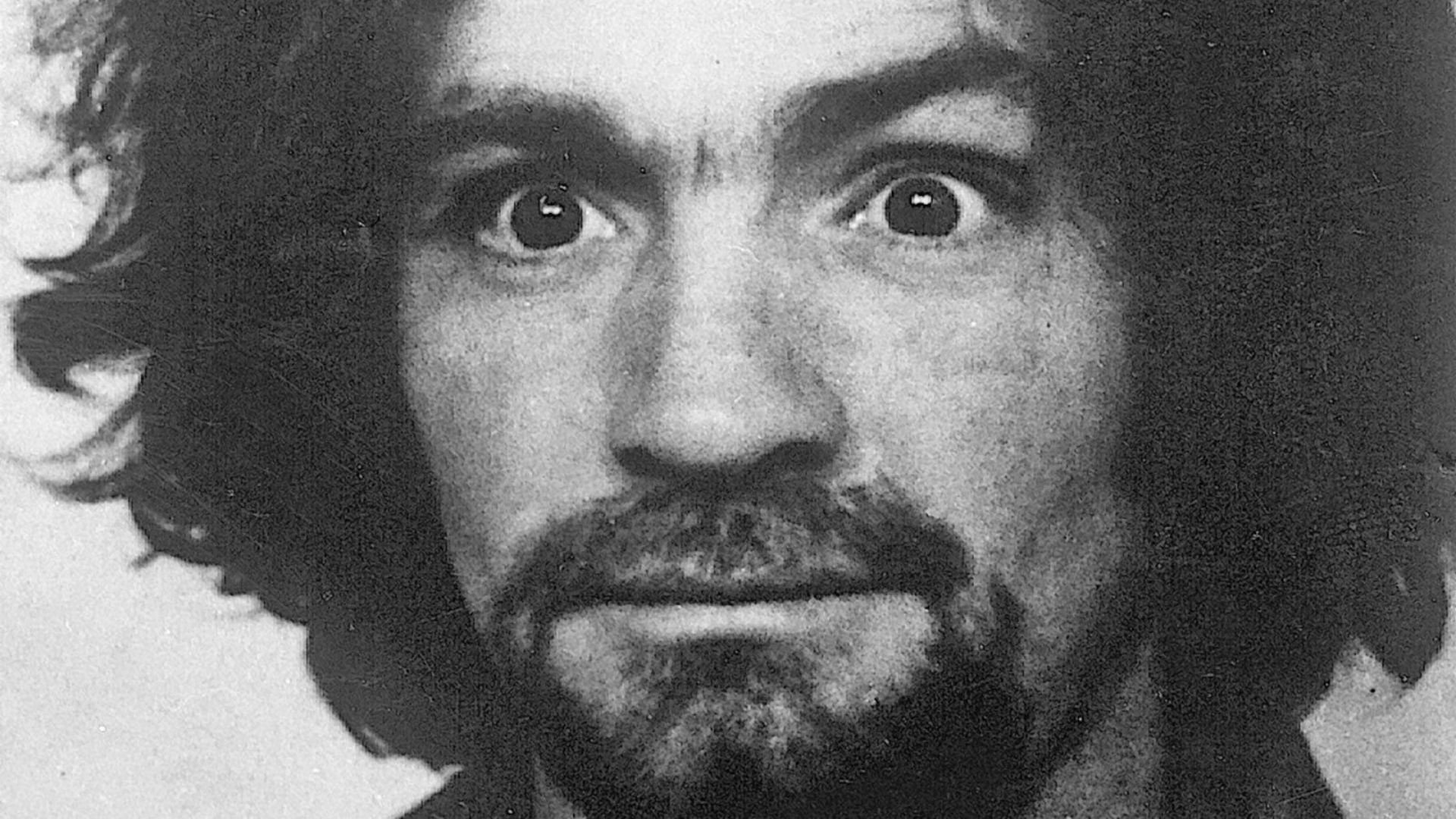

NO SHARING

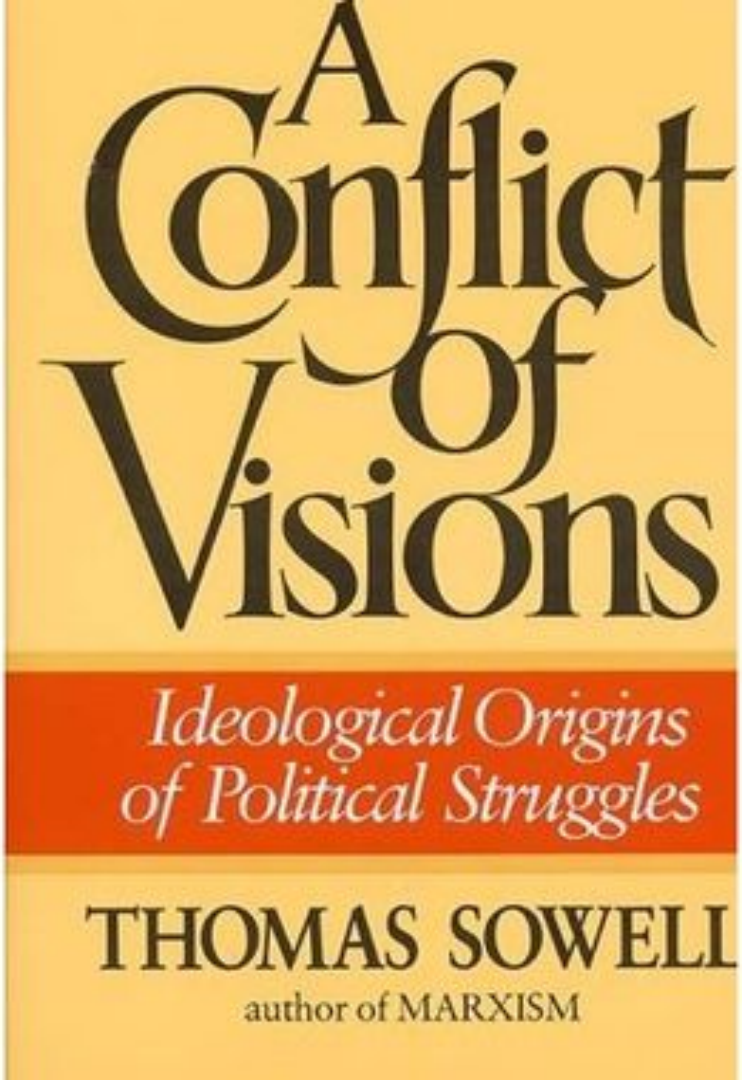
+ working separately



+ working together

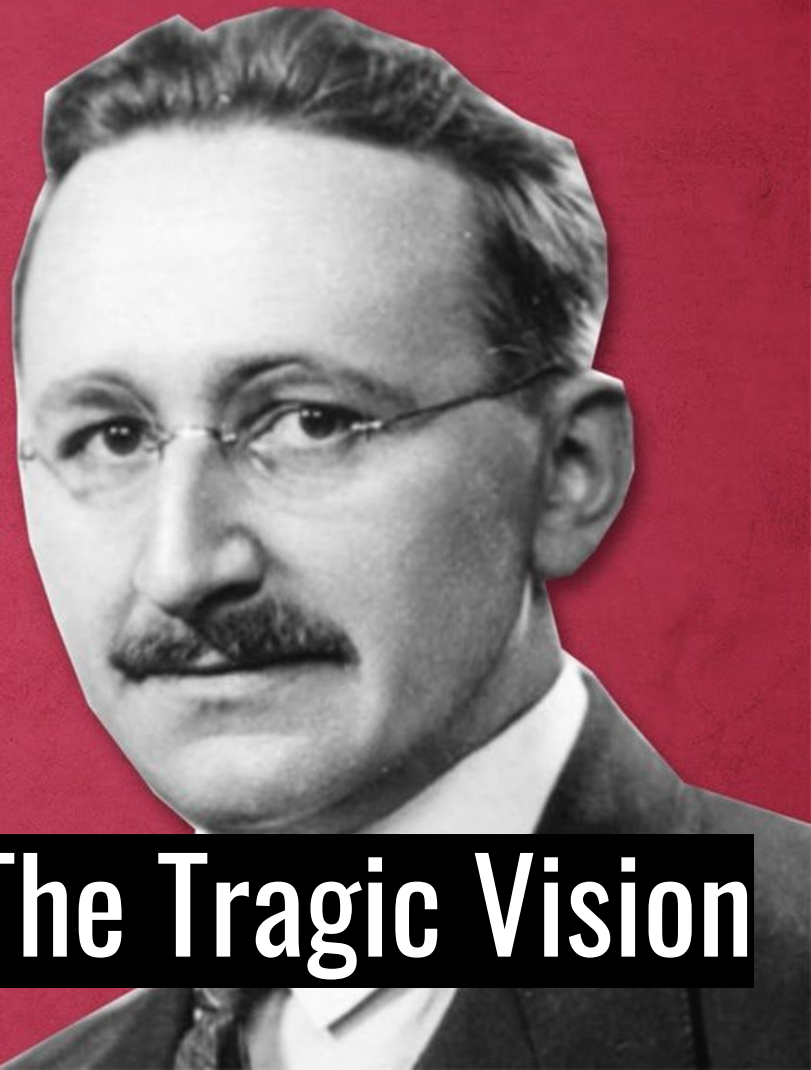
Blair (2001) suggests that we have a **violence inhibition mechanism** that suppresses aggressive behavior when distress cues (e.g., a submission pose) are exhibited.





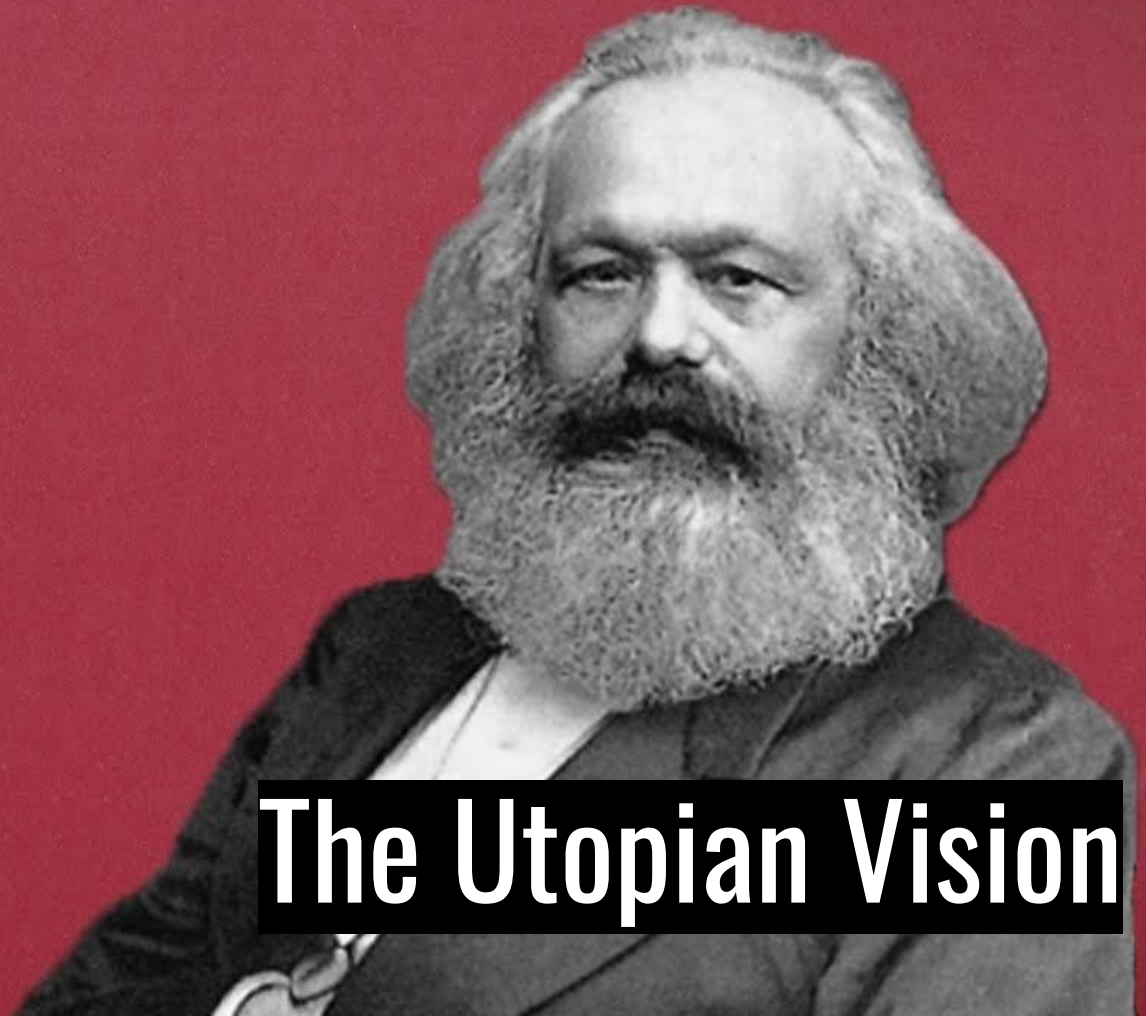
Sowell (1987) hypothesizes that our intuitions about human nature and **our capacity to predict complex human interactions** imply our different attitudes towards politics and society (also see Pinker 2013, chapter 16).

FRIEDRICH HAYEK

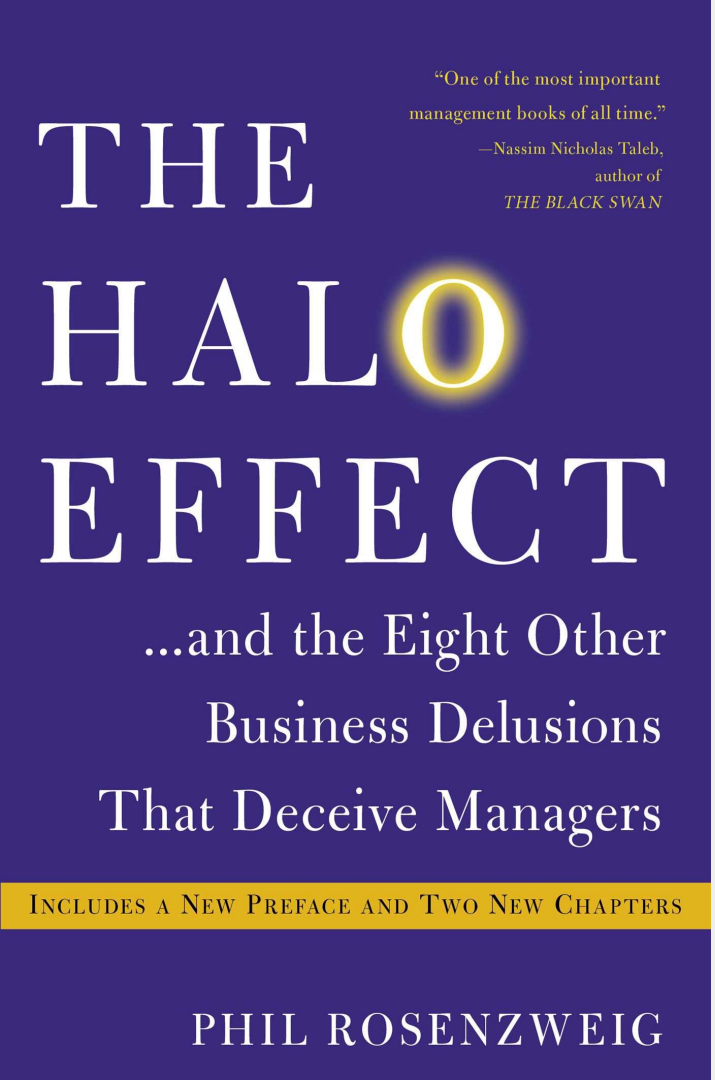


The Tragic Vision

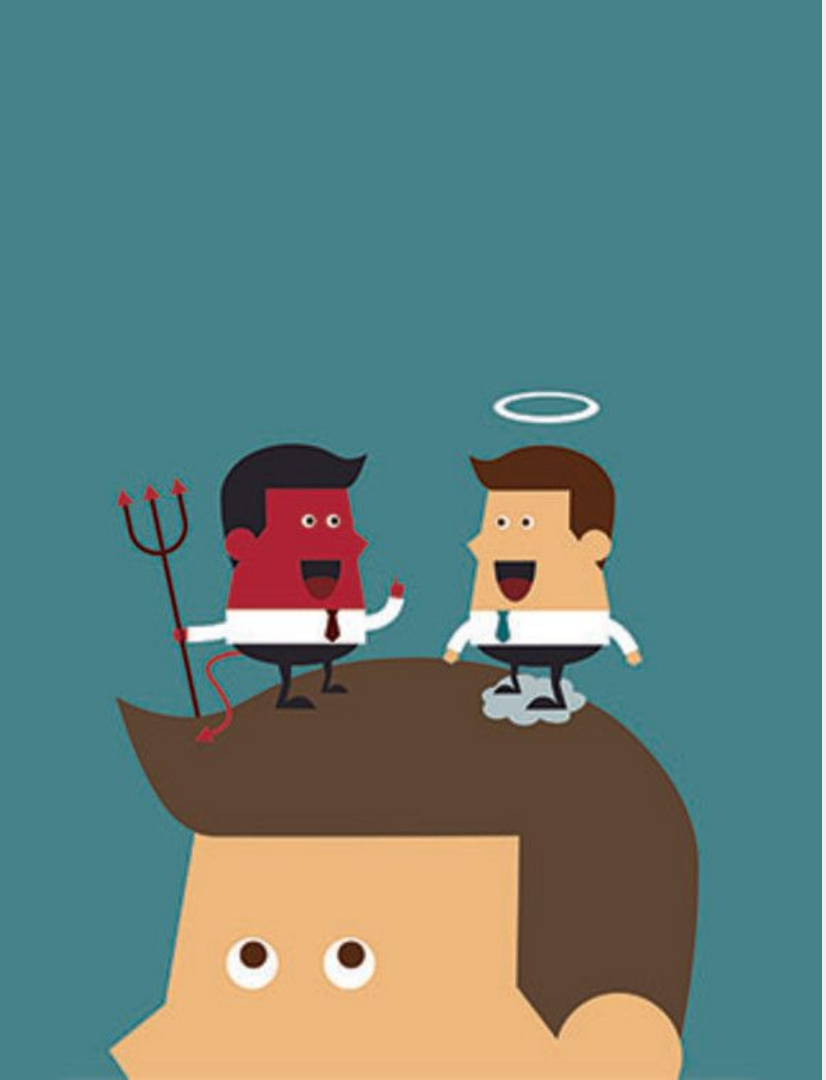
KARL MARX



The Utopian Vision

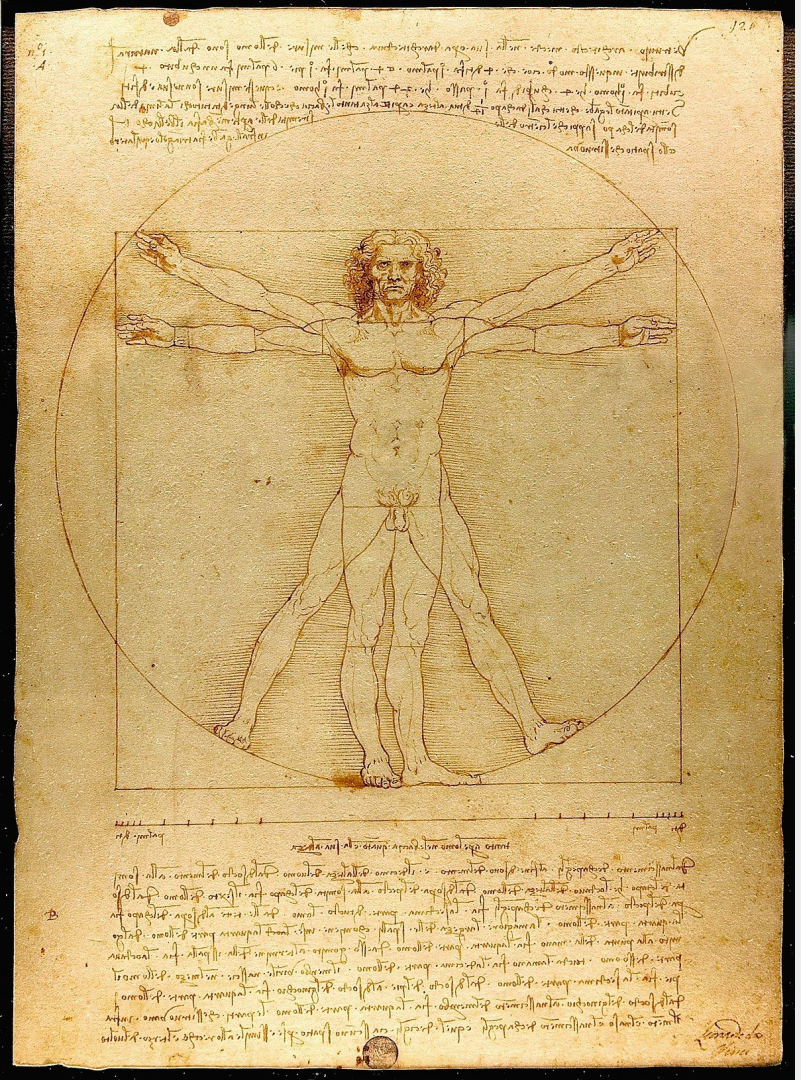


The halo effect, first posited by Thorndike (1920), is our tendency to, once we've positively assessed one aspect of a person, brand, company or product, to **positively assess other unrelated aspects** of that same entity (see also Nisbett and Wilson 1977 and Rosenzweig 2014).



Merritt et al. (2010) argue that we are prone to **moral licensing**.

In other words, once we've done one good deed, we feel **entitled** to do a bad one (click here for more info).



Several studies (e.g., Grammer and Thornhill 1994) show that humans have an innate preference for symmetrical faces, judging these to be more beautiful.

This might explain why attractive defendants on trial are acquitted more often and get lighter sentences (see Mazzella and Feingold 1994).


00:08

Every Night & every Morn
Some to Misery are Born
Every Morn and every Night
Some are Born to sweet delight
Some are Born to sweet delight
Some are Born to Endless Night

William Blake, Auguries of Innocence