

The Limitations of Individual Rationality

Quote of the Day:

***Don't Believe Everything You Think*, the title of a book by
accounting professor Thomas Kida**

***Don't Believe Everything You Say*, a book title somebody
should use while it's still available**

Readings for next time

**Second paper due next Wednesday,
third paper at end of quarter**

A folk model of the processes leading to beliefs and actions:

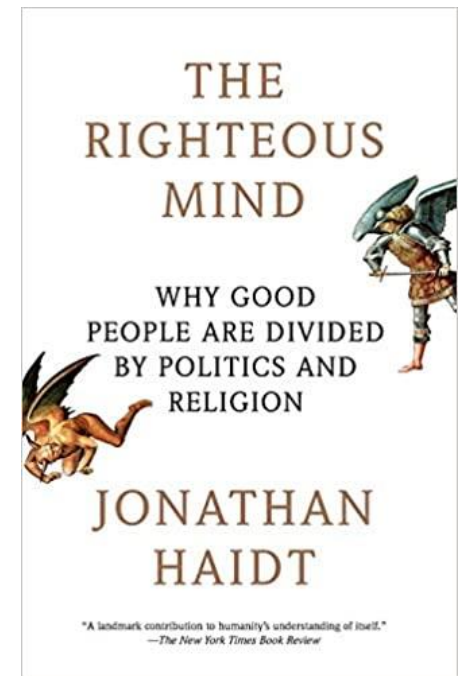


- 1. People absorb and evaluate information.**
- 2. Then they form beliefs and engage in actions.**
- 3. If the situation calls for it, they articulate the reasons for their beliefs and actions.**

Within this model, people know and accurately reveal the reasons for their beliefs and actions. Is the folk model accurate?

Let's examine several research projects suggesting no.

Jonathan Haidt, "The Emotional Dog and its Rationalist Tail"



Haidt: People have moral instincts but construct post-hoc reasons to justify them. In situations where people's reasons don't apply, they nevertheless cling to their beliefs.

An example. People have a strong aversion to incest, probably because of the evolutionary heritage we share with other mammals.

Haidt's hypothetical scenario: "Julie and Mark, who are sister and brother, are traveling together in France. They are both on summer vacation from college. One night they are staying alone in a cabin near the beach. They decide that it would be interesting and fun if they tried making love. At the very least it would be a new experience for each of them. Julie is already taking birth control pills, but Mark uses a condom too, just to be safe. They both enjoy it, but they decide not to do it again. They keep that night as a special secret between them, which makes them feel even closer to each other. So what do you think about this? Was it wrong for them to have sex?"

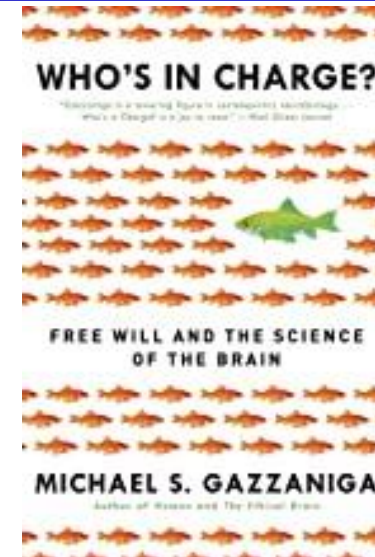
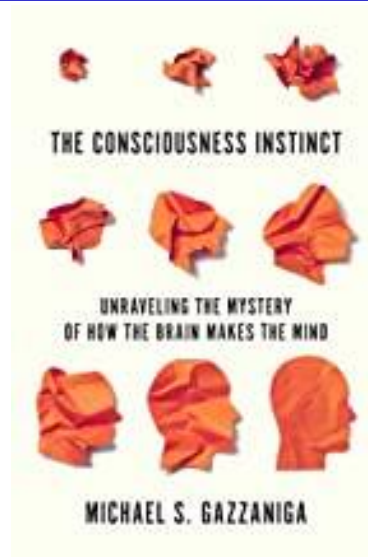
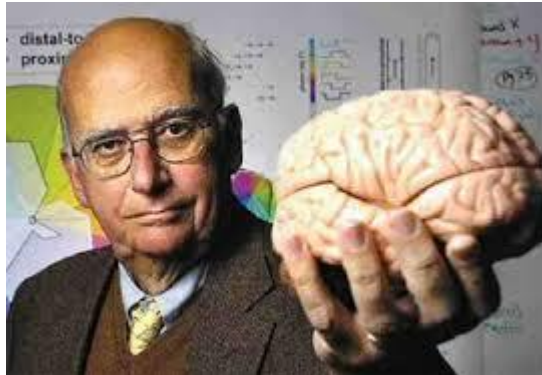
When asked whether what the brother and sister did was wrong, almost everyone answered yes.



When asked why, many people struggled to offer a reason, or they offered a reason that violated the scenario. Eventually, many people gave up (“moral dumbfounding”).

From that and other lines of research, Haidt concludes that people engage in post-hoc reasoning for their moral beliefs.

Michael Gazzaniga



People with extreme epilepsy sometimes have surgery to cut their corpus callosum, a nerve tract connecting the left and right hemispheres. Known as “split brain” patients.

One of Gazzaniga’s studies: expose right side of brain to pictures or words unaware to the speech region on the left side.

Through their speech, split brain patients nevertheless confabulated reasons for their actions that could not be the real reasons.

**Example. Right side vision: saw the image
“Walk.” Left side speech:
“I’m going to get a coke”**



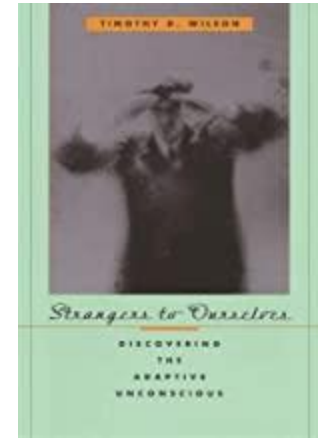
**Left side vision: picked chicken
to go with chicken claw. Right
side vision: picked snow shovel
to go with picture of snow
scene. Left side speech: “I
picked the chicken to match the
chicken claw, and the shovel to
scoop out the chicken shit.”**



Timothy Wilson and Richard Nisbett (1977)

- **Shoppers at a mall were asked to choose from four pairs of pantyhose, and explain their preference.**
- **Unknown to the shoppers, all four pairs were identical.**
- **People had no trouble confabulating a reason for their choices.**

Timothy Wilson, *Strangers to Ourselves*



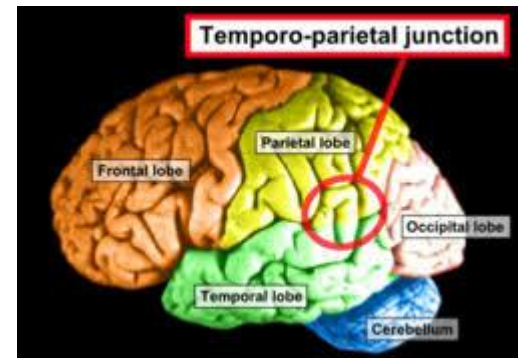
According to the research Wilson cites, people aren't very good at understanding their past, present, and future beliefs and behaviors.

Consistent with Haidt, Gazzaniga, Wilson, and other researchers, people are also influenced (usually without their awareness) by their genes, hormones, brain chemistry, and hidden features of the environment.

Rebecca Saxe, How We Read Each Other's Minds

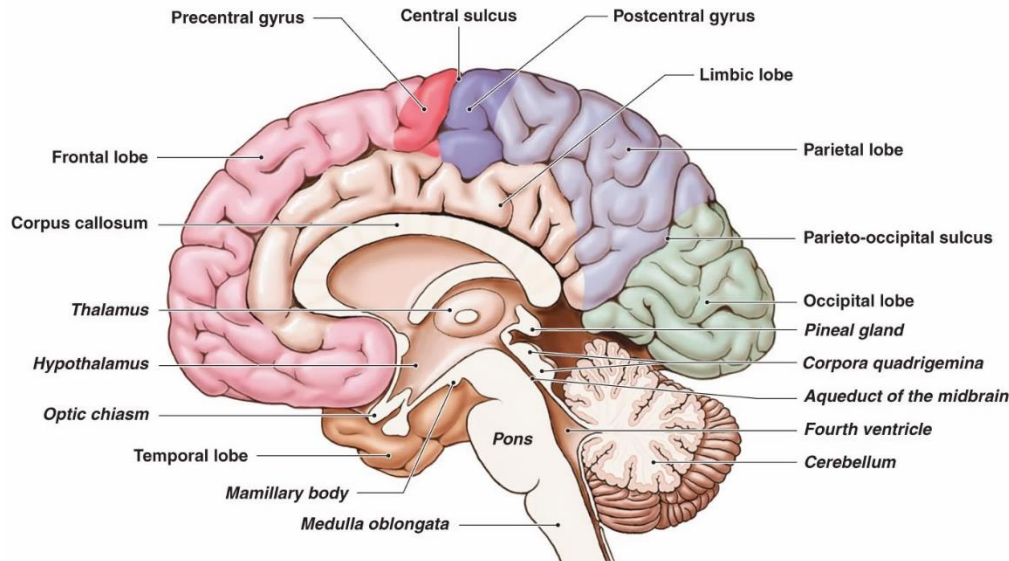


Differences in the structure and functioning of the Right Temporoparietal Junction (RTPJ) affect how people assess somebody's else's culpability for accidents.



Ordinarily, people have no access to the ways their RTPJ (or other brain regions, genes, hormones, and hidden features of the environment) affect them. Thus, they don't invoke those phenomena as causal factors for why they think and act as they do.

A midsagittal view showing the inner boundaries of the lobes of the cerebral cortex
(Structures outside of the cerebrum are labeled in *italics*.)

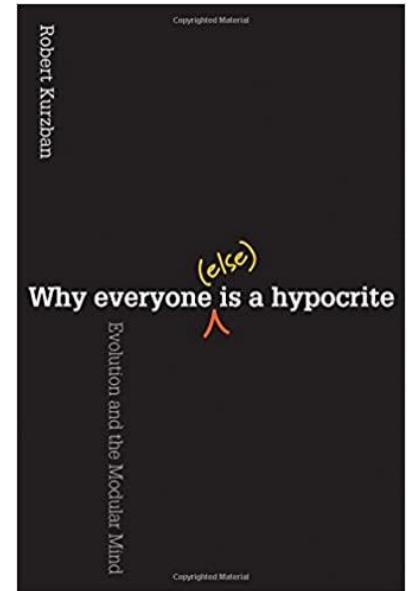


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Some brain functions:

- working memory**
- emotion regulation**
- attention**
- motor skills**
- visual processing**
- auditory processing**
- sleep**
- sexual arousal**
- speech**
- understanding language**
- homeostasis**
- etc.)**

Robert Kurzban, *Why Everybody (Else) Is a Hypocrite*



The brain has modules, overlapping somewhat with different regions, for its various functions. Key point for Kurzban: the parts involved in processing information and making decisions are separate from those involved in speech.



Building now to the press secretary model of the mind. The president and his or her closest advisors make decisions. The press secretary, who wasn't involved, justifies those decisions for the media and public.

Robert Kurzban and other researchers in this area: We are social primates, and our speech is for explaining ourselves and managing relationships. What a person says has varying degrees of connection to the actual reasons for their beliefs and behaviors.

Hence the press secretary model of the mind.

Assuming the press secretary model of the mind is accurate, beliefs and behaviors follow a course something like the following (and note the differences from our earlier folk model):



- 1. People absorb and evaluate information through processes that often lie outside their conscious awareness.**
- 2. People form beliefs and engage in behaviors.**
- 3. If the situation calls for it, people defend their beliefs and behaviors through reasons constructed on the spot for public consumption.**

Questions on the press secretary model of the mind?

The many limitations of individual rationality (a partial list):

- **fallacies and biases**
- **errors in intuition**
- **errors in perception and judgment**
- **errors in memory**
- **tribalism**
- **post-hoc reasoning**

Everyone (including you and me) is vulnerable to these limitations. When seeking truth, we're all flawed as individuals.

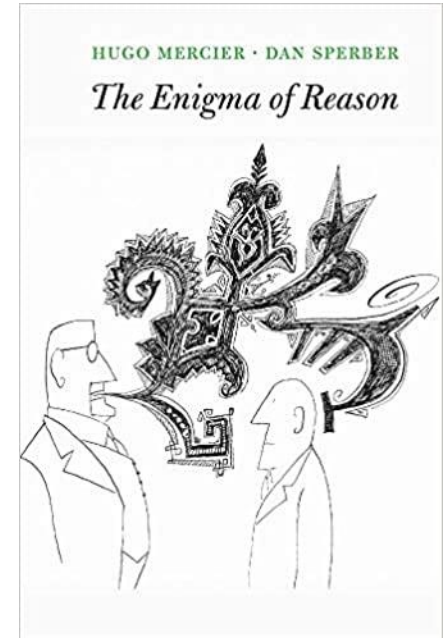
Can someone overcome these problems, at least to some extent? Maybe, hopefully.



Ideally, this and other classes will improve your skills at critical thinking (and mine), allowing each of us to arrive at positions closer to truth.

Alternatively, we could conceive of truth as something that emerges from collectives rather than individuals.

Drawing from Hugo Mercier and Dan Sperber, *The Enigma of Reason*



- **Suppose the press secretary model of the mind is accurate.**
- **Suppose furthermore that a person expresses their views within a small group containing members with diverse backgrounds and viewpoints.**

- Each person's claims become an input into other people's processes of belief formation.



- It would be irrational to reject someone else's claims merely because the reasons they offer aren't the real reasons (origin fallacy). Once somebody makes a claim, other people should evaluate the claim on its own terms.
- Some people will agree with what a person says and others will disagree. These other people engage the initial speaker and offer their own perspectives.

- **Meanwhile, some group members do not hold prior beliefs on the subject and could potentially be swayed by persuasive arguments and evidence.**



- **Through dialogue, the group could shift in the direction of whoever has the better case on the subject at hand.**

- **The group position could thus end up closer to truth than what the initial speaker said.**

Let's try to formalize this process. Imagine an institution where:

- 1. People develop, compile, and study ideas from the past and present.**
- 2. People have the freedom to research and evaluate those ideas from a variety of standpoints, and to communicate their conclusions to other members of the community.**
- 3. Truth emerges from the collective process of discovery, dialogue, critique, sifting, and transmission.**

Would you support creating such an institution?