

HSRAA 2022 CONFERENCE

28-30TH SEPTEMBER | MANCHESTER



PHLEXGLOBAL

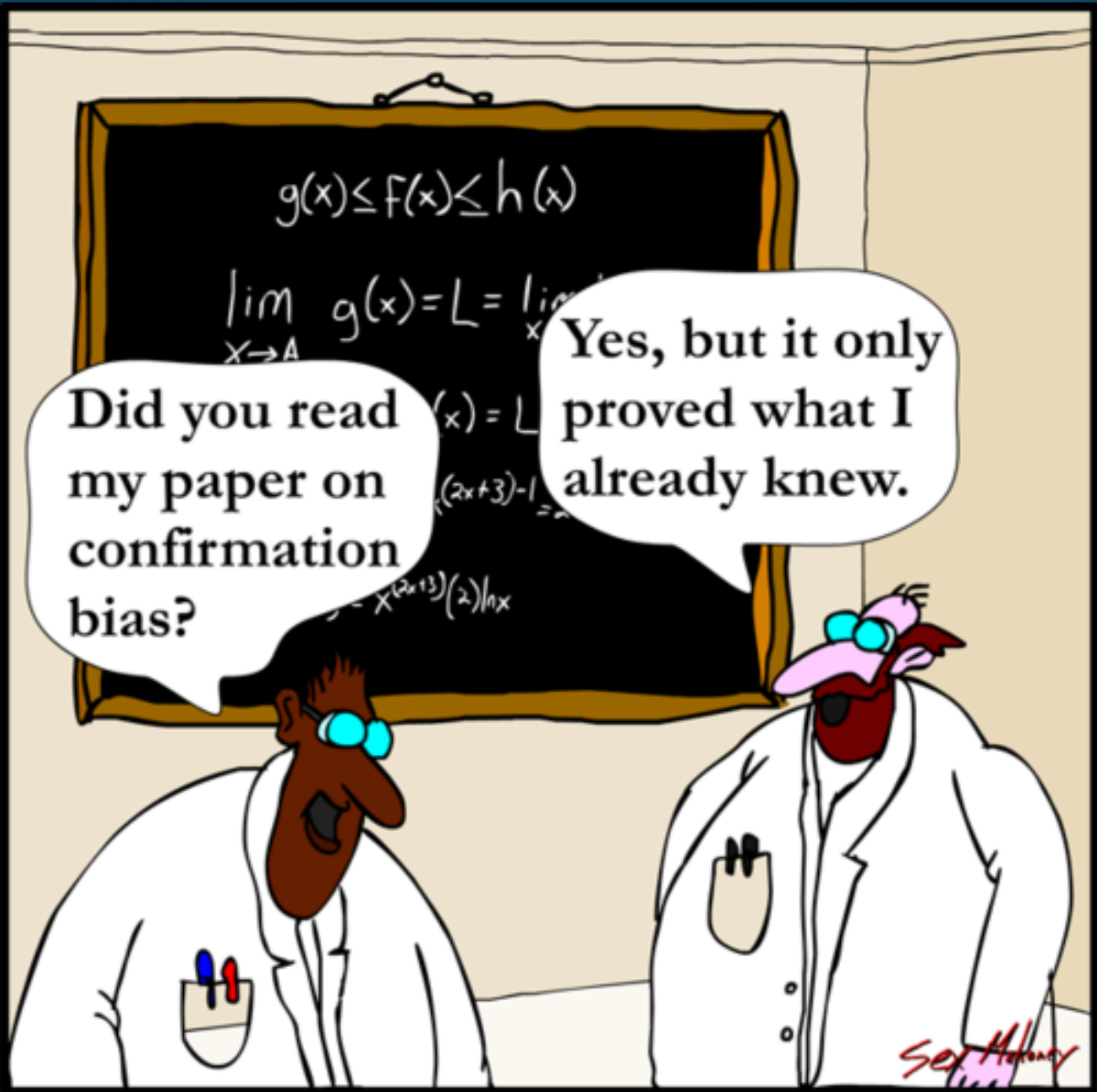


OBJECTIVITY IN SCIENCE

PRESENTED BY:

DAVID CHARALAMBOUS,
REACHING PEOPLE





$$g(x) \leq f(x) \leq h(x)$$

$$\lim_{x \rightarrow A} g(x) = L = \lim_{x \rightarrow A} h(x)$$

Did you read my paper on confirmation bias?

Yes, but it only proved what I already knew.

Sey Molloney







Reaching People

ReachingPeople.net

Conversations

Messaging

Behaviour /
How we are
Influenced

Summary

- 1) Perception
- 2) Behavioural Science – Cognitive Biases
- 3) Objectivity Illusion
- 4) Debate vs Dialogue
- 5) Conclusion

PERCEPTION

Figure 10.10: A 3D perspective view of a checkerboard with a green cylinder on it.

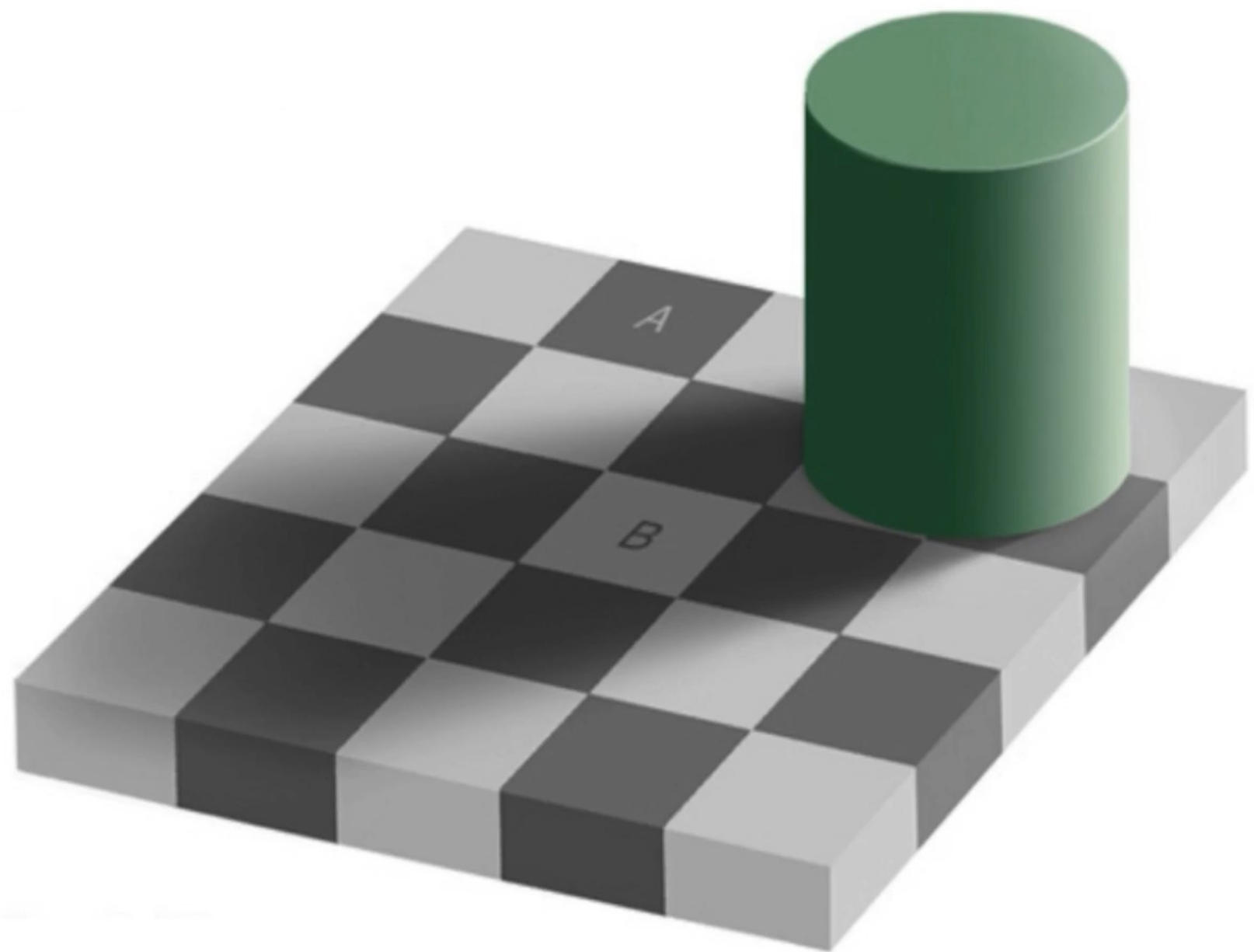
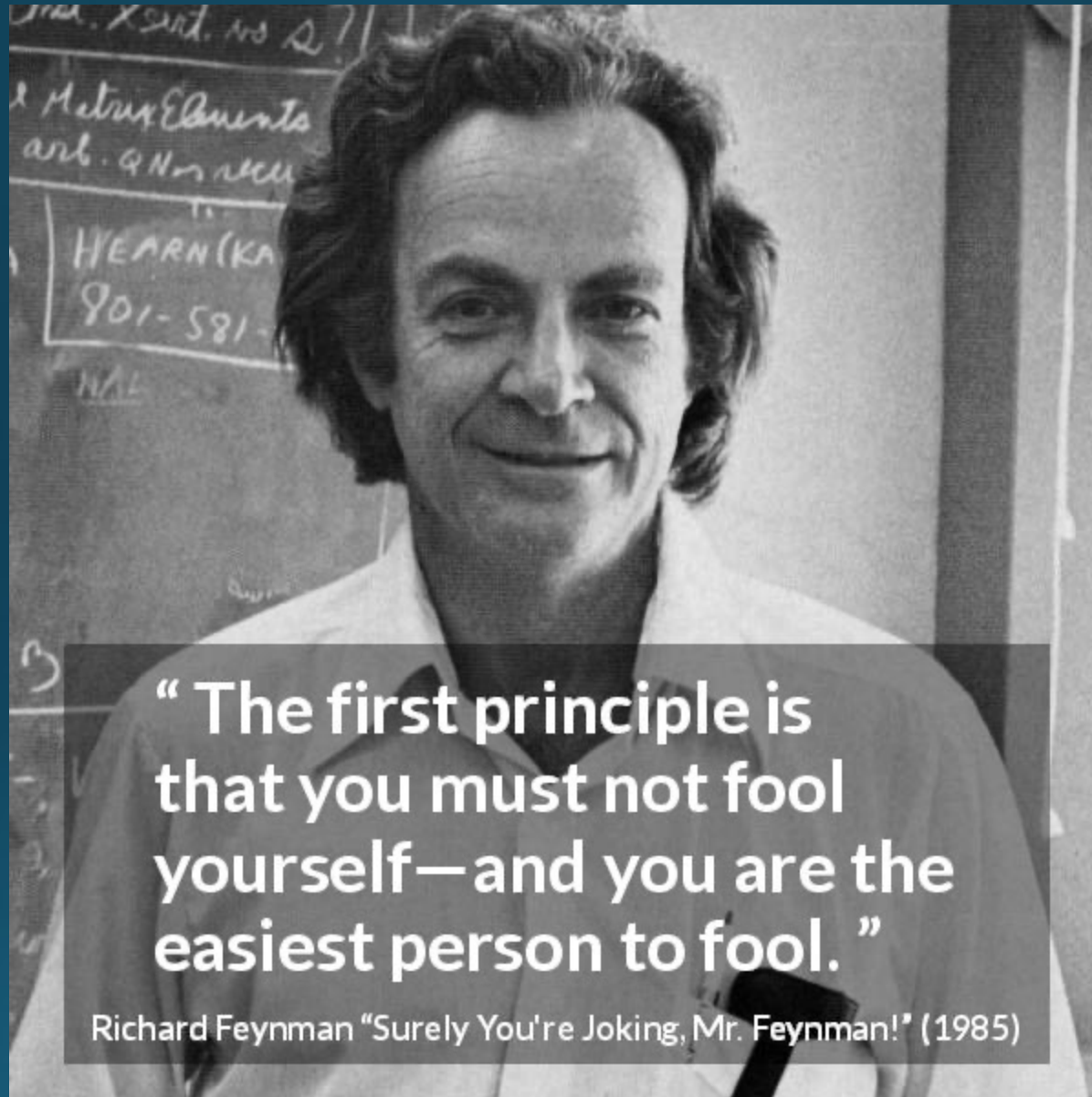


Figure 10.11: A 3D perspective view of a checkerboard with a green cylinder on it.

Figure 10.12: A 3D perspective view of a checkerboard with a green cylinder on it.



“The first principle is that you must not fool yourself—and you are the easiest person to fool.”

Richard Feynman “Surely You’re Joking, Mr. Feynman!” (1985)

ERRORS OUR BRAIN MAKES



A 60 seconds

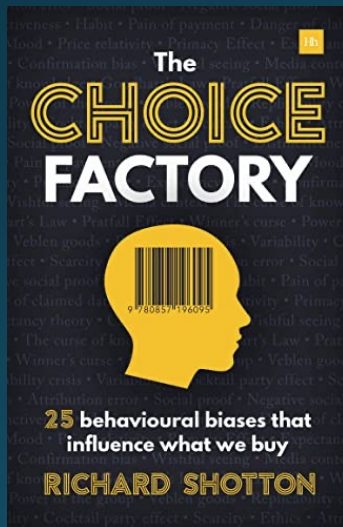
B 60 seconds + 30 seconds less cold



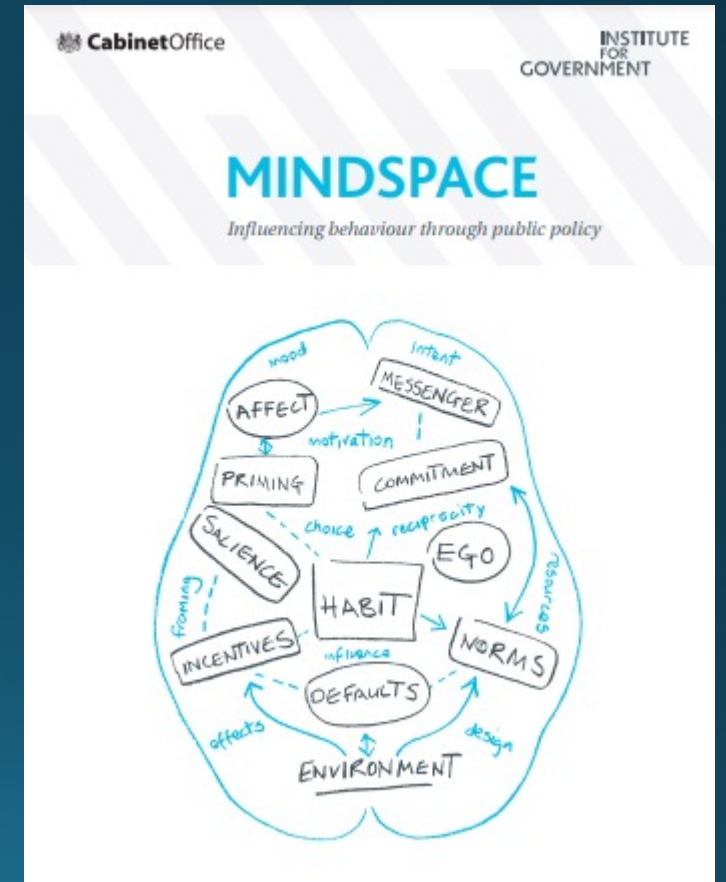
BEHAVIOURAL SCIENCES

BEHAVIOURAL SCIENCES

Behavioural Science is the study of decision making
Richard Shotton



A nudge is a way to influence a person to adopt one thought or decision over another



COGNITIVE BIAS

- Cognitive biases are unconscious errors in thinking that arise from problems related to memory, attention, and other mental mistakes.
- These biases result from our brain's efforts to simplify the incredibly complex world in which we live.
- The most problematic ones are those that happen subliminal but are denied when information brought into awareness (example next slide)

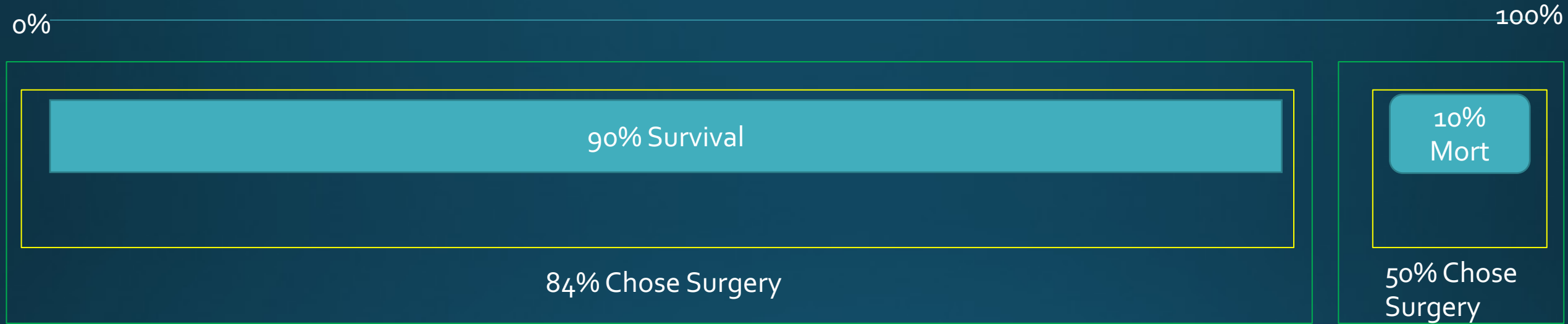
Subliminal Effects



COGNITIVE BIASES

COGNITIVE BIASES: FRAMING

% CHANCE OF SURVIVAL AFTER ONE MONTH OF THE SURGERY



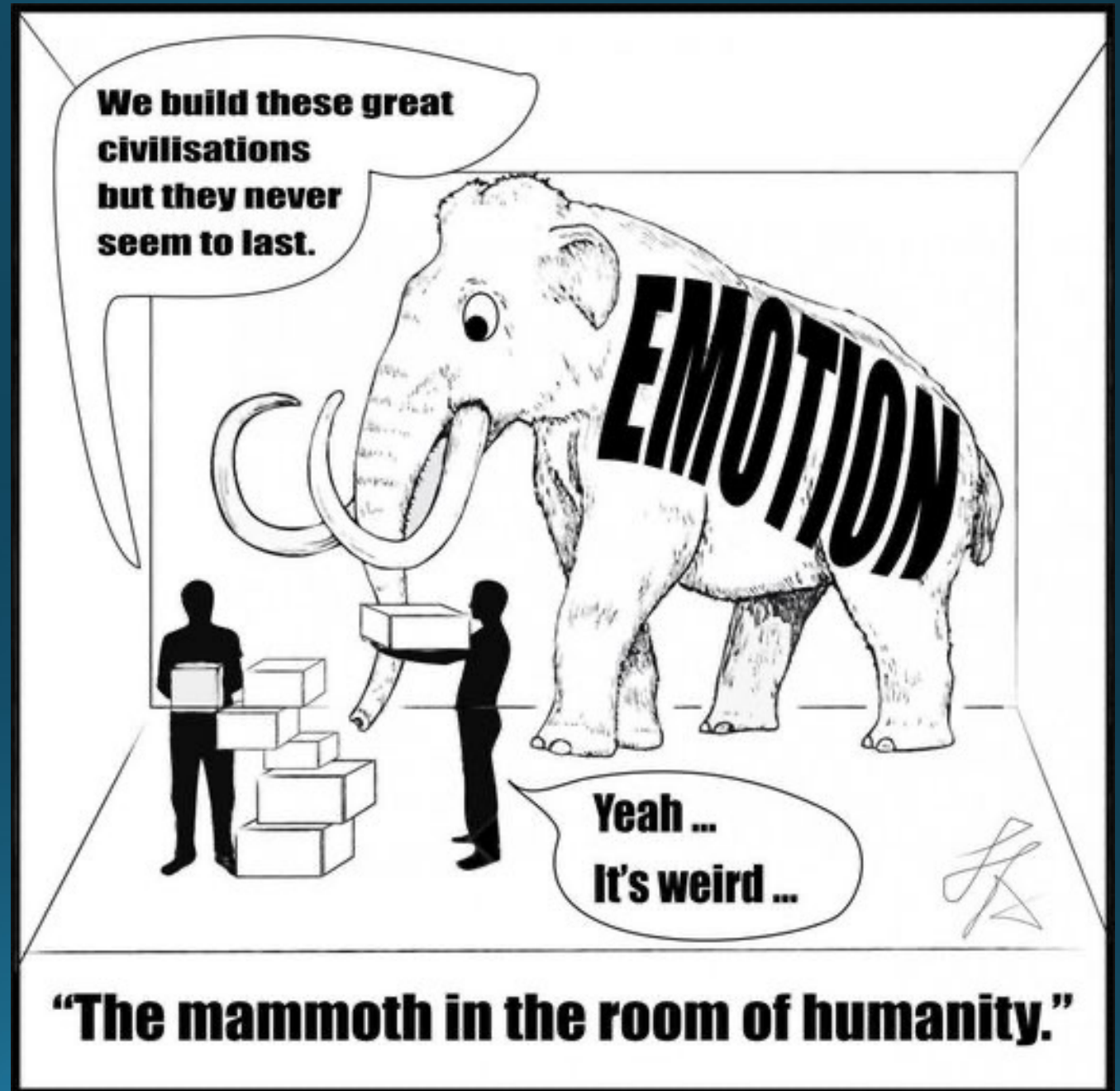
The framing effect is where we are presented two or more options which are the same but the way they are presented is different and changes our interpretation

- ◇ We tend to value options that are framed positively
- ◇ We tend to choose options with higher values as our bias believes higher is better
- ◇ This is often used in conjunction with social proof / negative social proof

*Kahneman and Tvirksy in conjunction with Harvard Medical School

COGNITIVE BIASES: AFFECT HEURISTIC

The *affect heuristic* describes how we often rely on our emotions, rather than concrete information, when making decisions. This allows us to reach a conclusion quickly and easily, but can also distort our thinking and lead us to make suboptimal choices.



“The mammoth in the room of humanity.”

COGNITIVE BIASES: CONFIRMATION BIAS

Peer Reviewed "Confirmation Bias"



Science or Nonsense

TITLE:

Embracing Fatness as Self-Care in the Era of Trump

ABSTRACT:

Current discourse surrounding self-care is often dominated by sizeism and fatphobic attitudes. These problems are augmented in a time when we have an openly fatphobic president. Donald Trump's racism, xenophobia, homophobia, and transphobia are openly discussed and protested while the president's fatphobia often remains ignored. Not only does he rely on sizeist tropes to shame women, but he is also known for favoring his own children based on their adherence to hegemonic, patriarchal conceptions of beauty. This paper argues for an embracing

COGNITIVE BIASES: SOCIAL PROOF

A towel less: How psychologists harness sociability to cut waste

Date: March 24, 2014

Source: Université du Luxembourg

Summary: Hotel guests can be gently persuaded to reduce the number of towels they use each day, psychology researchers have found. With fewer towels to wash, this reduces the waste of water, energy and detergent. This is good news for the environment and it cuts costs, so enabling hotels to reduce prices.

“You are what you do,
not what you say you
will do.”

— Carl Jung

www.facebook.com/poets01



Cognitive Biases and Heuristics

- 1) Approx 250
- 2) “Other people” suffer from biases
- 3) Many are used by corporations and institutions to sell more or gain compliance

OBJECTIVITY ILLUSION

LEE ROSS

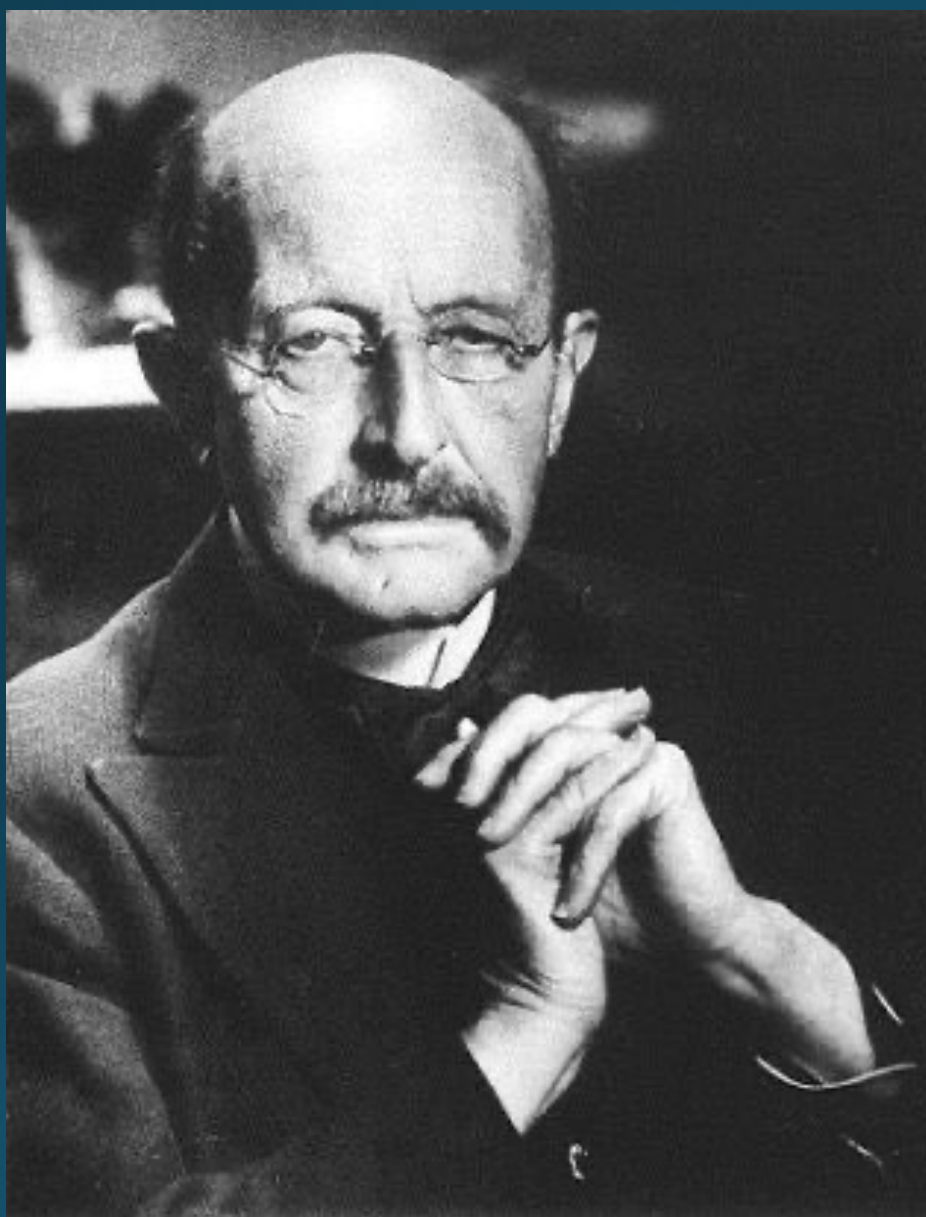
DRIVING TO WORK



Objectivity Illusion

- 1) Conviction that our own perceptions (feelings, beliefs etc) are realistic and “Objective” and therefore that (reasonable) other will (and should) share them
- 2) Undue optimism about our ability to persuade those who disagree with us or don't share our feelings and priorities (including the “other side”)
- 3) Negative attributions about those who disagree with us (they are unreasonable / irrational...have succumbed to various biases)

SCIENTIFIC DEBATE VS DIALOGUE



"A new scientific truth does not triumph by convincing opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it. "

Max Planck

Differing Views



Fact

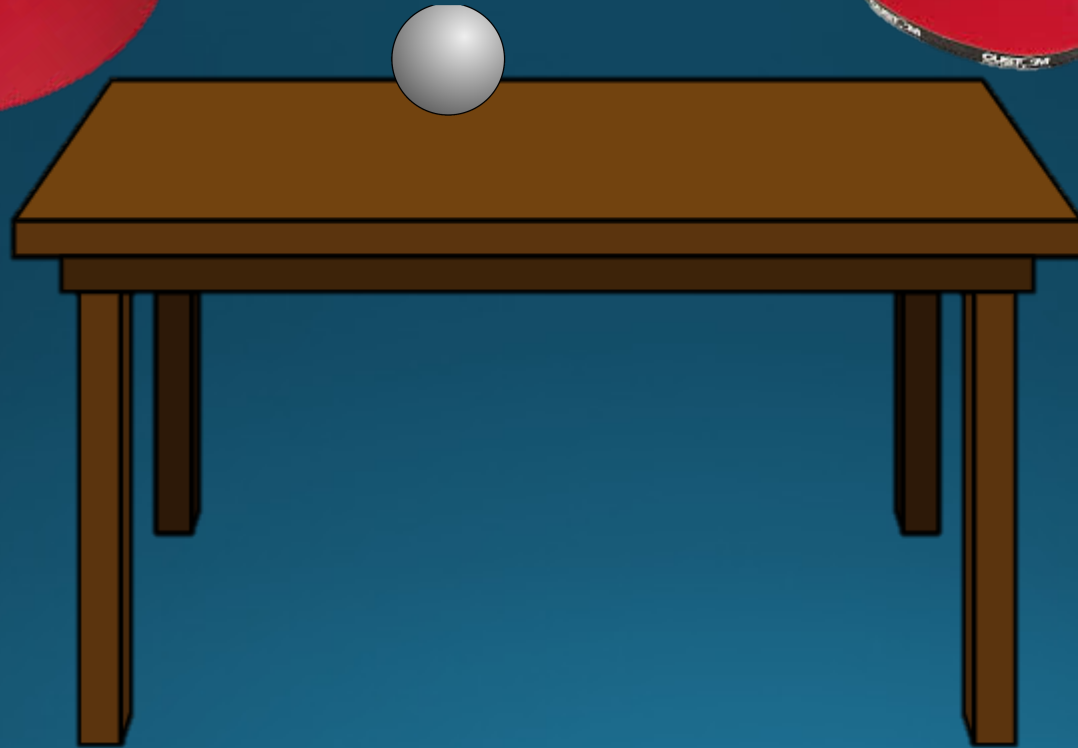


Different Theory of Mortality

Washing Hands is Nonsense

Pathogens Causing Harm

Solution Washing Hands



In dialogue, however,
**nobody is trying to
win.** Everybody wins if
anybody wins.

~ David Bohm



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Conclusion

Biases and cognitive functions are so integral to how we perceive the world, that they need to be factored in more rigorously into scientific processes





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Q&A