MISBELIEF

What Makes Rational People
Believe Irrational Things

DAN ARIELY

$PrintCode

How Could *That* Person Believe *That* Thing?

Liberal/Democrats Conservative/Republican

Covid-19 threat exaggerated by Donald Trump's political opponents ●
Barack Obama faked his U.S. citizenship ●
Climate change is a hoax ●
Robert Mueller was secretly investigating the Clintons, ● not Trump
George Soros is plotting to ● control the world
The Democrats infected Trump ● with Covid-19
There is a national conspiracy ● to kill police
Jeffrey Epstein was murdered to protect his ● criminal network
Covid-19 was spread ● intentionally
Bill Gates caused ● Covid-19
The establishment covered up the dangers of ● the Covid-19 vaccine
Elites in government and Hollywood are engaged ● in pedophile rings
There is a "deep state" secretly operating ● within government
The FDA prevents access to natural cancer cures ● to protect big pharma
There are tracking devices in ● Covid-19 vaccines
The Sandy Hook shooting was faked by ● the government
The 9/11 terrorist attacks were not ● carried out by al-Qaeda
5G causes Covid-19 ●
School shootings are false flags ● perpetrated by the government
Robert F. Kennedy assassination ● was part of a conspiracy
Government adds mind-control ● technology to TV broadcast signals
The establishment covers up the ● dangers of the MMR vaccine
Big pharma and medical industries ● invent diseases for financial gain
John F. Kennedy assassination ● was part of a conspiracy
Cell phones ● cause cancer
Holocaust death counts ● are exaggerated
Dangers of GMOs are ● being hidden
True cures for cancer are being hidden ● by the medical establishment
The Rothschild family ● controls the world
Fluoride in water ● controls minds
Regardless of elected governments, ● a single group controls the world
Banks manipulate the ● economy for financial gain
Government mandates ● fluorescent light bulbs to control minds
AIDS was spread ● intentionally
Franklin D. Roosevelt knew about ● Pearl Harbor attack in advance
Martin Luther King assassination ● was part of a conspiracy
Evidence of alien ● contact is being covered up
The moon ● landing was faked
Government assassinated ● artists like John Lennon, Tupac Shakur
Vladimir Putin poisoned ● Hillary Clinton to prevent her election
O. J. Simpson ● was framed by the police
In Hurricane Katrina, ● officials breached levees to protect wealthy homes
The Koch brothers ● are plotting to control the world
Reagan conspired ● with Iran to hold hostages until after 1980 election
Effort to ● stop the Post Office from processing mail-in ballots
● GW Bush faked employment stats to obscure severity of 2007 crisis
● Russia manipulates U.S. national policy
● Trump faked his Covid-19 infection to aid his re-election
● Trump is a Russian asset
● Trump made a deal with Putin
● The GOP steals elections
● Trump covered up the extent of his Covid-19 symptoms

-0.6   -0.4   -0.2   0   0.2   0.4   0.6

FIGURE 1

A list of misbeliefs and their correlations with political affiliation

If a belief has a "positive" score (to the right of the graph), it is more strongly held by conservatives. If a belief has a "negative" score (to the left of the graph), it is more strongly held by liberals. We tend to think that only people on the other side of the political aisle, not "our people," are likely to be misbelievers, but as this figure shows, misbelief seems to be equally distributed across the political spectrum. Based on the work of Adam Enders and colleagues.

The Funnel at Work
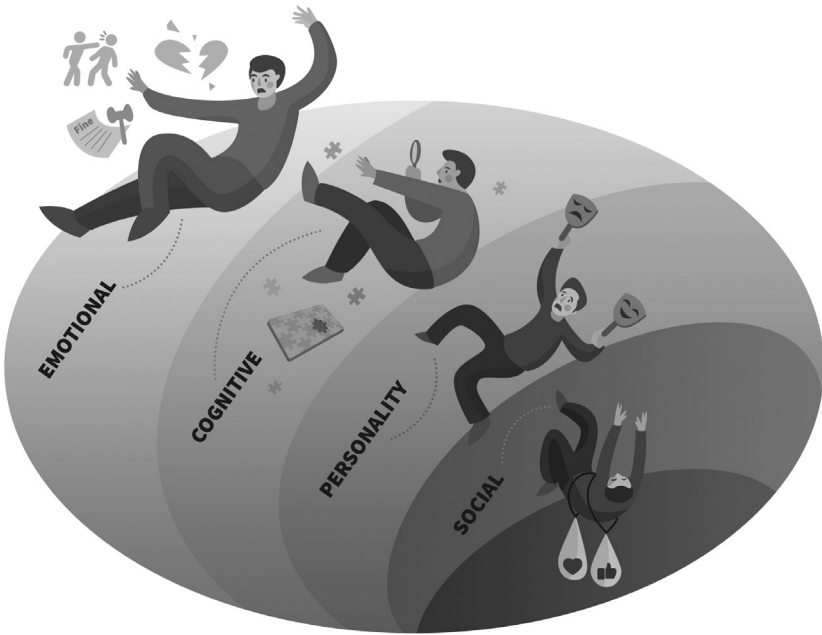
FIGURE 2

The funnel of misbelief and its constituent elements (emotional, cognitive, personality, and social)

Picking a Villain as a Way to Regain Control

FIGURE 3

The unintended consequences of finding a villain

Every time someone experiencing stress watches a video with a villain they can blame, they feel short-term relief that turns into long-term deterioration. The process repeats over time and creates a long-term reduction of well-being.
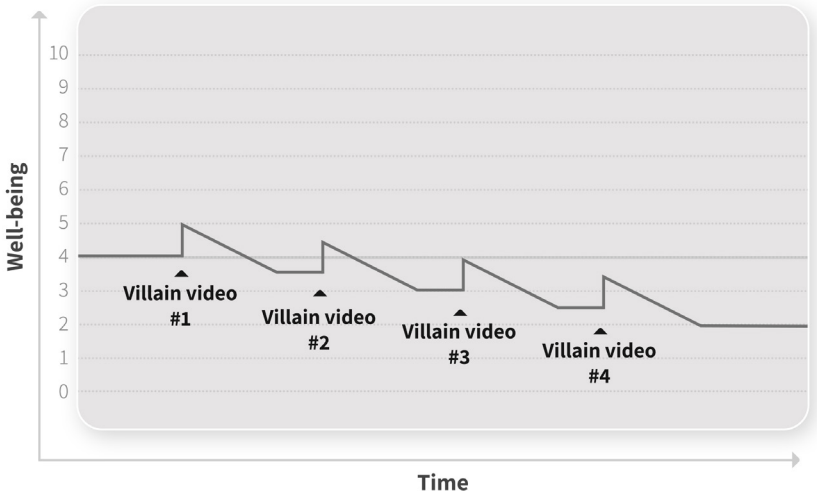
FIGURE 4

The emotional elements of the funnel of misbelief

- We all experience general stress—predictable and unpredictable.

  - The experience of unpredictable stress can create a feeling of lack of control, which can lead to the condition of learned helplessness.

- Stress negatively impacts cognitive function and decision-making.

  - Resilience is increased by community support but weakened by economic inequality.

- Under compounding stress, we can begin to feel hard done by.

  - This leads us to seek answers and ways to regain a sense of control.

  - We get a temporary sense of relief and control when we find a villain to blame—similar to the relief an OCD sufferer gets from compulsive behaviors like handwashing.

  - However, the relief is temporary, so we go back for more. In the long term, it makes us feel worse, but we keep looking in the same place for short-term relief.

- Feeling as though the pain is being inflicted intentionally adds to the sting.

- The stories misbelievers believe are extremely complex for several reasons:

  - For the content creators, complex stories mean they can produce more content.

  - Complex stories satisfy the "proportionality bias," which tells us that a large or intense problem must have large causes.

  - Complex stories satisfy the desire for unique knowledge, making the misbeliever feel empowered and more in control.

- The stories often have a morally repulsive theme, designed to fuel hate.

Our Search for the Truth We Want to Believe In

FIGURE 5

An illustration of the Wason selection task

Working Hard to Believe What We Already Believe

The Illusion of Explanatory Depth

Another psychological quirk related to the Dunning-Kruger effect is called the **illusion of explanatory depth**. Before we get into more detail, let's start with an exercise, based on the work of Rebecca Lawson.

Bicycle Knowledge

Please mark your answers to each of the questions below. And again, please do not just answer them in your mind.

1. Have you ever seen a bicycle before? Yes/No

2. Do you know how to use a bicycle? Yes/No

3. Do you understand how a bicycle works? Yes/No

4. How well do you understand how a bicycle works? (using a scale from 0 = not sure at all, to 100 = understand it perfectly well): _____

5. Look at the bicycle below and think about what a real bicycle should look like. Then draw the frame, pedals, and chain in their correct positions.
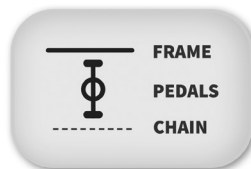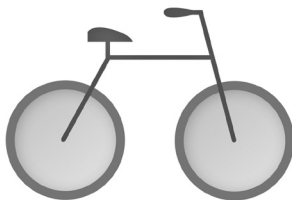
6. Now let's look at the same question but focus on one part at a time: Looking at the four images below, which bicycle shows the usual position of the frame? (please circle your answer)
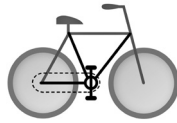
A.   B.

C.   D.
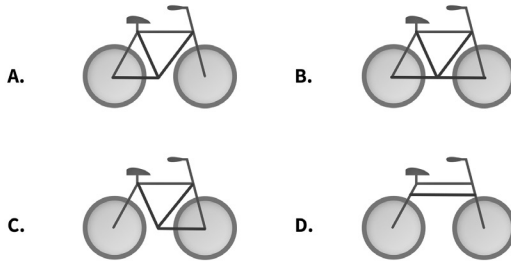
7. Looking at the four images below, which bicycle best shows the usual position of the pedals? (please circle your answer)

A.   B.

C.   D.
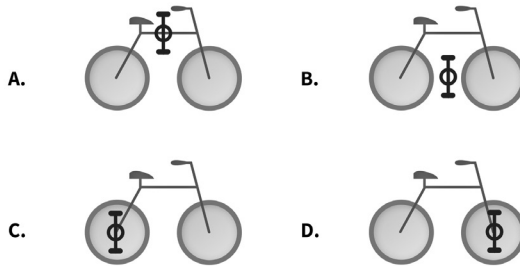
8. Looking at the four images below, which bicycle best shows the usual position of the chain? (please circle your answer)

A.   B.

C.   D.
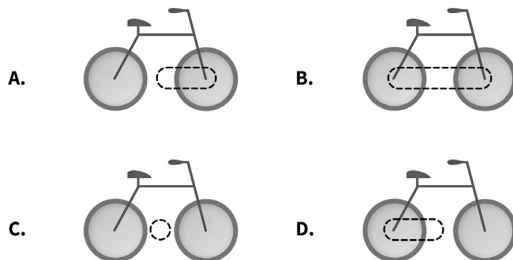
See the correct orientation of the parts of the bike below. How well did you do? _____

Now that you have an example of how a bicycle really looks, add up your score:

In your answer to question 5, is the frame in the correct spot? (1 point if it is)
In your answer to question 5, are the pedals in the correct spot? (1 point if they are)
In your answer to question 5, is the chain in the correct spot? (1 point if it is)
Is your answer to question 6 correct? (1 point if it is)
Is your answer to question 7 correct? (1 point if it is)
Is your answer to question 8 correct? (1 point if it is)

Total Score: _____/6 points

After completing the exercise, ask yourself questions 3 and 4 again:

3 (Updated). Do you understand how a bicycle works? Yes/No
4 (Updated). How well do you understand how a bicycle works? (using a scale from 0 = not sure at all, to 100 = understand it perfectly well): _____

Write down your responses to these questions in the table below:

	Response Before Exercise	Response After Exercise
3. Understanding (Yes/No)		
4. Understanding (0–100)		

To what extent did you change your mind? (using a scale from 0 = not at all, to 100 = very much) _____

To what extent do you think there are other things in your daily environment that you thought you understood but now you are not so sure? (using a scale from 0 = there must be many other things that I overestimate how much I understand, to 100 = I don't think there is anything else that I overestimate how much I understand) _____

FIGURE 6
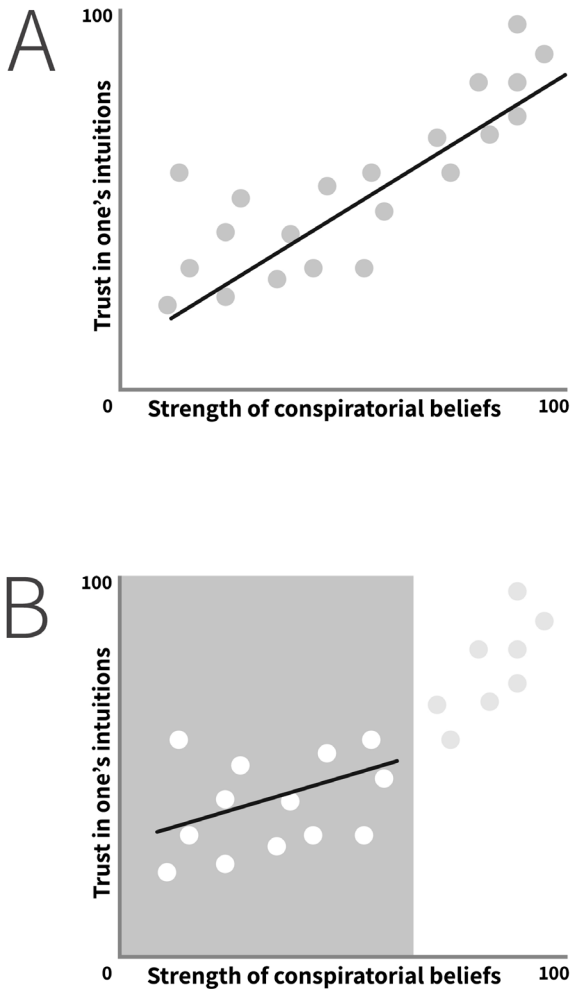

The cognitive elements of the funnel of misbelief

When stress pushes us down the funnel and we begin to search for answers and look for a villain to blame, cognitive elements lead us deeper into misbelief.

Faulty human cognitive structures make us susceptible to misinformation, just as our evolutionary predilections make us susceptible to fast food.

When we search for information, confirmation bias leads us to look for things that confirm our suspicions rather than disprove them.

Once we believe something, we work hard to convince ourselves that it's true—a process known as motivated reasoning. Sometimes, our fear of implied solutions to problems leads us to deny the problems themselves—a bias known as solution aversion.

Conspiracy theories are designed to take advantage of our cognitive biases.

All of this is exacerbated by the ways in which we misthink about our own thinking and fall prey to overconfidence in our understanding of how things work.

Lessons on Personality from Alien Abductees

FIGURE 7

The problem with a biased sample

An illustration of the challenges that come with studying a relationship between two variables when people who hold the most extreme opinions don't participate in the study. Panel A represents the full range of conspiratorial beliefs and the resulting correlation. The shaded rectangle in panel B represents what the results would look like if they were based only on participants who held only low and medium conspiratorial beliefs. This is what we get when the extremes don't participate.

An Attempt to Classify the Role of Personality in the Funnel of Misbelief

FIGURE 8

The personality elements of the funnel of misbelief

Personality—broadly understood as individual differences—plays a role in explaining why some of us are more susceptible to misbelief than others.

It is extremely difficult to do personality research on misbelievers, since they instinctively mistrust the motives of the researchers. However, some common traits have been observed.

Being more prone to misremembering, falling into the trap of false recall and false recognition, feeds misbelief.

Seeing patterns where none exist is linked to misbelief.

Overtrusting our intuitions is linked to misbelief.

Decision-making biases such as the conjunction fallacy, illusory correlations, and the hindsight bias are more pronounced in misbelievers.

Narcissism plays a role in misbelief.

Personality cannot be easily changed, but knowing which traits correlate with misbelief can help us to identify risky points.

The Social Accelerator

FIGURE 9
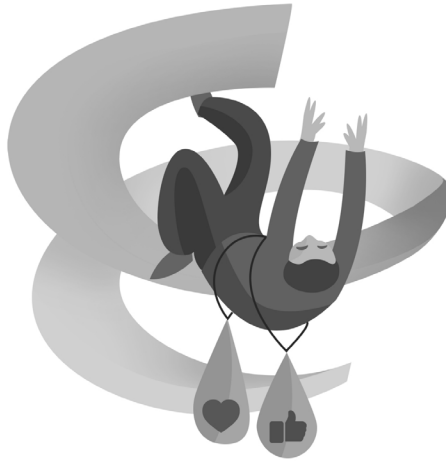
The social elements of the funnel of misbelief

In the journey down the funnel of misbelief, social forces play a powerful role.

The sense of ostracism is a powerful driver of misbelief.

Social Attraction happens in the early stages, as a result of a "push and pull" dynamic, where we start feeling ostracized by our friends and family and pulled by the sense of belonging to a new community.

Social Maintenance happens once we are deeper into the funnel and embedded in a new social group. For example:

- We look for "social proof" of how to behave from the new group of people around us.

- The group solidifies our new beliefs.

- The new beliefs solidify our loyalty to the group as the sense of ostracism from our old social circles intensifies.

Social Acceleration occurs when we are deep in the funnel, and the social bonds with other misbelievers "seal the deal" and make it hard to escape. This happens in several ways:

- Cognitive dissonance causes people to double down on misbelief.

- The need to show loyalty and gain status drives people to greater extremes, and polarization accelerates this process.

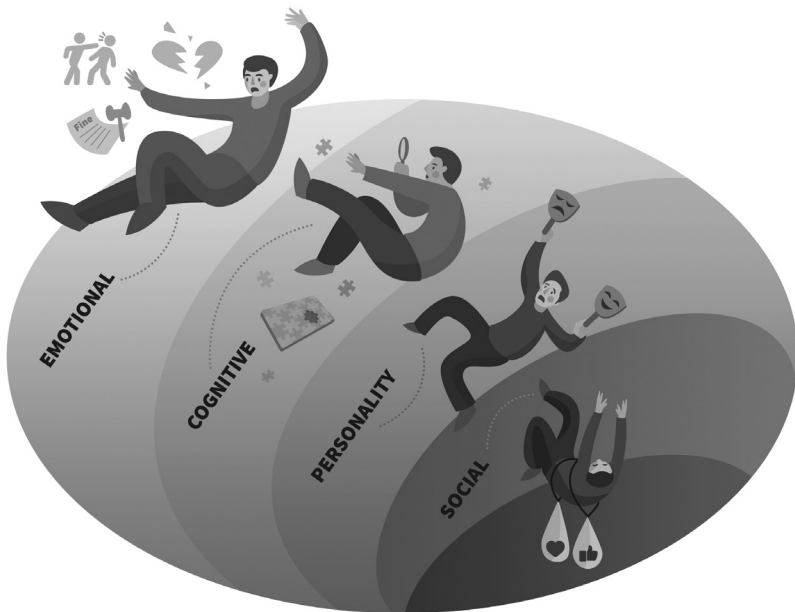- The fear of losing status and relationships within the new social group makes it hard for people to leave.

Why Superman Gives Me Hope

A Final Word (Not Really)

FIGURE 10

As a final reminder, the funnel of misbelief and its constituent elements (emotional, cognitive, personality, and social)

Acknowledgments

I am writing these lines during Thanksgiving, which is a wonderful time to think about gratitude in general and about my specific gratitude for the help with this book.

One of the main superpowers that made it possible for me to manage this complex period and come out only slightly damaged was Liron Frumerman. Liron and I have been friends for a while, and when the attacks started piling on, she took it upon herself to become my human buffer. She monitored the social media scene and passed on to me only the things she thought I must know about. She also joined many online groups, went to demonstrations, and in the line of duty almost agreed to go on a date with one of the misbelievers. In all these ways, she was not only one of my main sources of resilience, she was also instrumental in helping me understand the world of misbelief. I could not have hoped for a better friend and colleague for this complex journey.

The experience of diving into the world I describe here was complex and messy, and Ellen Daly not only helped me polish the ideas and clarify them with grace and humor; she also helped me sort out the messy experiences I was going through. Looking back at it now, I realize that she was also acting as my therapist—so an extra thanks for this. I could not have imagined a better partner to go through this adventure; my only regret is that we did not get to spend more time working side by side in person. I also want to thank Talia Krohn, who first encouraged me to move forward with this book and gave me very good advice about how to approach it. Dana Kindler helped me with a lot of the background research for this book; Nathaniel Barr and

References

Introduction

Based on:

Anandi Mani, Sendhil Mullainathan, Eldar Shafir & Jiaying Zhao, "Poverty Impedes Cognitive Function," *Science* (August 30, 2013).

Chapters 1 and 2

Based on:

Figure 1 is based on Adam Enders, Christina Farhart, Joanne Miller, Joseph Uscinski, Kyle Saunders & Hugo Drochon, "Are Republicans and Conservatives More Likely to Believe Conspiracy Theories?," *Political Behavior* (2022).

Jonathan Haidt, *The Righteous Mind: Why Good People Are Divided by Politics and Religion* (New York: Pantheon, 2012).

Misinformation to promote political agendas in 2017: Sam Levin, "Fake News for Liberals: Misinformation Starts to Lean Left Under Trump," *Guardian* (February 6, 2017).

Additional Reading

Michael Shermer, *Conspiracy: Why the Rational Believe the Irrational* (Baltimore: Johns Hopkins University Press, 2022).

Harry Frankfurt, *On Bullshit* (Princeton, NJ: Princeton University Press, 2005).

Mikey Biddlestone, Ricky Green, Aleksandra Cichocka, Karen Douglas & Robbie Sutton, "A Systematic Review and Meta-analytic Synthesis of the Motives Associated with Conspiracy Beliefs," PsyArXiv (2022).

Jan-Willem van Prooijen, "Psychological Benefits of Believing Conspiracy Theories," *Current Opinion in Psychology* (2022).

Karen Douglas & Robbie Sutton, "Why Conspiracy Theories Matter: A Social Psychological Analysis," *European Review of Social Psychology* (2018).

Daniel Sullivan, Mark Landau & Zachary Rothschild, "An Existential Function of Enemyship: Evidence That People Attribute Influence to Personal and Political Enemies to Compensate for Threats to Control," *Journal of Personality and Social Psychology* (2010).

Chapters 3 and 4

Based on:

Shira Hebel-Sela, Anna Stefaniak, Daan Vandermeulen, Eli Adler, Boaz Hameiri & Eran Halperin, "Are Societies in Conflict More Susceptible to Believe in COVID-19 Conspiracy Theories? A 66 Nation Study," *Peace and Conflict: Journal of Peace Psychology* (published online, 2022).

Donald Dutton & Arthur Aron, "Some Evidence for Heightened Sexual Attraction Under Conditions of High Anxiety," *Journal of Personality and Social Psychology* (1974).

Martin Seligman & Steven Maier, "Failure to Escape Traumatic Shock," *Journal of Experimental Psychology* (1967).

Anandi Mani, Sendhil Mullainathan, Eldar Shafir & Jiaying Zhao, "Poverty Impedes Cognitive Function," *Science* (2013).

Eileen Chou, Bidhan Parmar, & Adam Galinsky, "Economic Insecurity Increases Physical Pain," *Psychological Science* (2016).

Jon Jachimowicz, Salah Chafik, Sabeth Munrat, Jaideep Prabhu & Elke Weber, "Community Trust Reduces Myopic Decisions of Low-Income Individuals," *Proceedings of the National Academy of Sciences of the United States of America* (2017).

Jon Jachimowicz, Barnabas Szaszi, Marcel Lukas, David Smerdon, Jaideep Prabhu & Elke Weber, "Higher Economic Inequality Intensifies the Financial Hardship of People Living in Poverty by Fraying the Community Buffer," *Nature Human Behaviour* (2020).

Joshua Kalla & David Broockman, "Reducing Exclusionary Attitudes Through Interpersonal Conversation: Evidence from Three Field Experiments," *American Political Science Review* (2020).

Kurt Gray & Daniel Wegner, "The Sting of Intentional Pain," *Psychological Science* (2008).

Real Time with Bill Maher, HBO, Season 19, Episode 31 (October 22, 2021).

Clive Thompson, "QAnon Is like a Game—a Most Dangerous Game," *Wired* (September 22, 2020).

Reed Berkowitz, "QAnon Resembles the Games I Design. But for Believers, There Is No Winning," *Washington Post* (May 11, 2021).

Additional Reading

Karen Douglas, Robbie Sutton & Aleksandra Cichocka, "The Psychology of Conspiracy Theories," *Current Directions in Psychological Science* (2017).

Stephan Lewandowsky & John Cook, "The Conspiracy Theory Handbook," Skeptical Science (2020).

Michael Butter & Peter Knight, eds., *Routledge Handbook of Conspiracy Theories* (London: Routledge, 2020).

Chapters 5 and 6

Based on:

Andy Norman, *Mental Immunity: Infectious Ideas, Mind-Parasites, and the Search for a Better Way to Think* (New York: Harper Wave, 2021).

Ruth Appel, Jon Roozenbeek, Rebecca Rayburn-Reeves, Jonathan Corbin, Josh Compton & Sander van der Linden, "Psychological Inoculation Improves Resilience Against Misinformation on Social Media," *Science Advances* (2022).

About the Socratic Method: Leonard Nelson, "The Socratic Method," *Thinking: The Journal of Philosophy for Children* (1980).

Peter Wason, "Reasoning About a Rule," *Quarterly Journal of Experimental Psychology* (1968).

Peter Johnson-Laird & Peter Wason, eds., *Thinking: Readings in Cognitive Science* (Cambridge, UK: Cambridge University Press, 1977).

Julia Galef, *The Scout Mindset: Why Some People See Things Clearly and Others Don't* (New York: Portfolio/Penguin, 2021).

Donato Paolo Mancini, "Cheap Antiparasitic Could Cut Chance of Covid-19 Deaths by Up to 75%," *Financial Times* (January 20, 2021).

Jaimy Lee, "'You Will Not Believe What I've Just Found.' Inside the Ivermectin Saga: A Hacked Password, Mysterious Websites and Faulty Data," MarketWatch (February 7, 2022).

Troy Campbell & Aaron Kay, "Solution Aversion: On the Relation Between Ideology and Motivated Disbelief," *Journal of Personality and Social Psychology* (2014).

Rebecca Lawson, "The Science of Cycology: Failures to Understand How Everyday Objects Work," *Memory & Cognition* (2006).

Leonid Rozenblit & Frank Keil, "The Misunderstood Limits of Folk Science: An Illusion of Explanatory Depth," *Cognitive Science* (2002).

Ethan Meyers, Jeremy Gretton, Joshua Budge, Jonathan Fugelsang & Derek Koehler, "Broad Effects of Shallow Understanding: Explaining an Unrelated Phenomenon Exposes the Illusion of Explanatory Depth," working paper, Yale University (2023).

Benjamin Lyons, Jacob Montgomery, Andrew Guess, Brendan Nyhan & Jason Reifler, "Overconfidence in News Judgments Is Associated with False News Susceptibility," *Proceedings of the National Academy of Sciences of the United States of America* (2021).

Additional Reading

Petter Johansson, Lars Hall, Sverker Sikström & Andreas Olsson, "Failure to Detect Mismatches Between Intention and Outcome in a Simple Decision Task," *Science* (October 7, 2005).

Gordon Pennycook, James Allan Cheyne, Derek Koehler & Jonathan Fugelsang, "On the Belief That Beliefs Should Change According to Evidence: Implications for Conspiratorial, Moral, Paranormal, Political, Religious, and Science Beliefs," *Judgment and Decision Making* (2020).

Gordon Pennycook, Jabin Binnendyk & David Rand, "Overconfidently Conspiratorial: Conspiracy Believers Are Dispositionally Overconfident and Massively Overestimate How Much Others Agree with Them," working paper, University of Regina (2022).

Nicholas Light, Philip Fernbach, Nathaniel Rabb, Mugur Geana & Steven Sloman, "Knowledge Overconfidence Is Associated with Anti-Consensus Views on Controversial Scientific Issues," *Science Advances* (2022).

Chapters 7 and 8

Based on:

Susan Clancy, Richard McNally, Daniel Schacter, Mark Lenzenweger & Roger Pitman, "Memory Distortion in People Reporting Abduction by Aliens," *Journal of Abnormal Psychology* (2002).

"Sleep Paralysis: Symptoms, Causes, and Treatment," The Sleep Foundation (2022).

Michael Shermer, "Patternicity: Finding Meaningful Patterns in Meaningless Noise," *Scientific American* (December 1, 2008).

Jan-Willem van Prooijen, Karen Douglas & Clara De Inocencio, "Connecting the Dots: Illusory Pattern Perception Predicts Belief in Conspiracies and the Supernatural," *European Journal of Social Psychology* (2018).

Jennifer Whitson & Adam Galinsky, "Lacking Control Increases Illusory Pattern Perception," *Science* (2008).

Bronislaw Malinowski, *Magic, Science and Religion and Other Essays* (Long Grove, IL: Waveland Press, 1948).

P. V. Simonov, M. V Frolov, V. F. Evtushenko & E. P. Sviridov, "Effect of Emotional Stress on Recognition of Visual Patterns," *Aviation, Space, and Environmental Medicine* (1977).

George Gmelch, "Baseball Magic," *Trans-action* (1971).

The part on Trump and gut intuition is based on: Aaron Blake, "President Trump's Full Washington Post Interview Transcript, Annotated," *Washington Post* (November 27, 2018).

The Comprehensive Intellectual Humility Scale is taken from: Elizabeth Krumrei-Mancuso & Steven Rouse, "The Development and Validation of the Comprehensive Intellectual Humility Scale," *Journal of Personality Assessment* (2016).

Shauna Bowes, Thomas Costello, Winkie Ma & Scott Lilienfeld, "Looking Under the Tinfoil Hat: Clarifying the Personological and Psychopathological Correlates of Conspiracy Beliefs," *Journal of Personality* (2021).

Tenelle Porter & Karina Schumann, "Intellectual Humility and Openness to the Opposing View," *Self and Identity* (2018).

Shane Frederick, "Cognitive Reflection and Decision Making," *Journal of Economic Perspectives* (2005).

Gordon Pennycook & David Rand, "Lazy, Not Biased: Susceptibility to Partisan Fake News Is Better Explained by Lack of Reasoning Than by Motivated Reasoning," *Cognition* (2019).

Amos Tversky & Daniel Kahneman, "Extensional Versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment," *Psychological Review* (1983).

Robert Brotherton & Christopher French, "Belief in Conspiracy Theories and Susceptibility to the Conjunction Fallacy," *Applied Cognitive Psychology* (2014).

Neil Dagnall, Andrew Denovan, Kenneth Drinkwater, Andrew Parker & Peter Clough, "Urban Legends and Paranormal Beliefs: The Role of Reality Testing and Schizotypy," *Frontiers in Psychology* (2017).

Steven Stroessner & Jason Plaks, "Illusory Correlation and Stereotype Formation: Tracing the Arc of Research over a Quarter Century," in *Cognitive Social Psychology: The Princeton Symposium on the Legacy and Future of Social Cognition*, edited by Gordon Moskowitz (Mahwah, NJ: Lawrence Erlbaum Associates, 2001).

Ziva Kunda, *Social Cognition: Making Sense of People* (Cambridge, MA: MIT Press, 1999).

Neal Roese & Kathlene Vohs, "Hindsight Bias," *Perspectives on Psychological Science* (2012).

Christian Jordan, Miranda Giacomin & Leia Kopp, "Let Go of Your (Inflated) Ego: Caring More About Others Reduces Narcissistic Tendencies," *Social and Personality Psychology Compass* (2014).

Additional Reading

Andreas Goreis & Martin Voracek, "A Systematic Review and Meta-Analysis of Psychological Research on Conspiracy Beliefs: Field Characteristics, Measurement Instruments, and Associations with Personality Traits," *Frontiers in Psychology* (2019).

Aleksandra Cichocka, Marta Marchlewska & Mikey Biddlestone, "Why Do Narcissists Find Conspiracy Theories So Appealing?," *Current Opinion in Psychology* (2022).

Chapters 9 and 10
Based on:

Kipling Williams, "Ostracism," *Annual Review of Psychology* (January 2007).

Naomi Eisenberger, Matthew Lieberman & Kipling Williams, "Does Rejection Hurt? An fMRI Study of Social Exclusion," *Science* (2003).

David McRaney, *How Minds Change: The Surprising Science of Belief, Opinion, and Persuasion* (New York: Portfolio/Penguin, 2022).

Robert Cialdini, *Influence: How and Why People Agree to Things* (New York: William Morrow, 1984).

Jessica Nolan, Paul Wesley Schultz, Robert Cialdini, Noah Goldstein & Vladas Griskevicius, "Normative Social Influence Is Underdetected," *Personality and Social Psychology Bulletin* (2008).

Solomon Asch, "Studies of Independence and Conformity. A Minority of One Against a Unanimous Majority," *Psychological Monographs: General and Applied* (1956).

Jean Twenge, Roy Baumeister, Nathan DeWall, Natalie Ciarocco & Michael Bartels, "Social Exclusion Decreases Prosocial Behavior," *Journal of Personality and Social Psychology* (2007).

Kai-Tak Poon, Zhansheng Chen & Nathan DeWall, "Feeling Entitled to More: Ostracism Increases Dishonest Behavior," *Personality and Social Psychology Bulletin* (2013).

Leon Festinger, Henry Riecken & Stanley Schachter, *When Prophecy Fails: A Social and Psychological Study of a Modern Group That Predicted the Destruction of the World* (New York: Harper & Row, 1964).

Taylor Lorenz, "Birds Aren't Real, or Are They? Inside a Gen Z Conspiracy Theory," *New York Times* (December 9, 2021).

Zoe Williams, "'The Lunacy Is Getting More Intense': How Birds Aren't Real Took On the Conspiracy Theorists," *Guardian* (April 14, 2022).

Jonathan Haidt, *The Righteous Mind: Why Good People Are Divided by Politics and Religion* (New York: Pantheon, 2012).

Tyler Kingkade, Ben Goggin, Ben Collins & Brandy Zadrozny, "How an Urban Myth About Litter Boxes in Schools Became a GOP Talking Point," NBC News (October 14, 2022).

Amotz Zahavi & Avishag Zahavi, *The Handicap Principle: A Missing Piece of Darwin's Puzzle* (London: Oxford University Press, 1997).

About Kipling Williams and ostracism: "Purdue Professor Studies the Pain of Ostracism," Purdue Today (January 13, 2011).

Additional Reading

Daniel Sullivan, Mark Landau & Zachary Rothschild, "An Existential Function of Enemyship: Evidence That People Attribute Influence to Personal and Political Enemies to Compensate for Threats to Control," *Journal of Personality and Social Psychology* (2010).

Antoine Marie & Michael Bang Petersen, "Political Conspiracy Theories as Tools for Mobilization and Signaling," *Current Opinion in Psychology* (2022).

Karen Douglas and Robbie Sutton, "What Are Conspiracy Theories? A Definitional

Approach to Their Correlates, Consequences, and Communication," *Annual Review of Psychology* (2023).

Anni Sternisko, Aleksandra Cichocka & Jay Van Bavel, "The Dark Side of Social Movements: Social Identity, Non-conformity, and the Lure of Conspiracy Theories," *Current Opinion in Psychology* (2020).

Zhiying Ren, Eugen Dimant & Maurice Schweitzer, "Beyond Belief: How Social Engagement Motives Influence the Spread of Conspiracy Theories," *Journal of Experimental Social Psychology* (2023).