



Notes

Chapter 1: The Uncomfortable Truth

1. A. J. Zautra, *Emotions, Stress, and Health* (New York: Oxford University Press, 2003), pp. 15–22.
2. I don't use the word *hope* in this book in the way it is typically used academically. Most academics use “hope” to express a feeling of optimism: an expectation of or belief in the possibility of positive results. This definition is partial and limited. Optimism can feed hope, but it is not the same thing as hope. I can have no expectation for something better to happen, but I can still hope for it. And that hope can still give my life a sense of meaning and purpose despite all evidence to the contrary. No, by “hope,” I am referring to a motivation toward something perceived as valuable, what is sometimes described as “purpose” or “meaning” in the academic literature. As a result, for my discussions of hope, I'll draw on research on motivation and value theory and, in many cases, try to fuse them together.
3. M. W. Gallagher and S. J. Lopez, “Positive Expectancies and Mental Health: Identifying the Unique Contributions of Hope and Optimism,” *Journal of Positive Psychology* 4, no. 6 (2009): 548–56.
4. This is almost certainly an overstatement.
5. See Ernest Becker, *The Denial of Death* (New York: Free Press, 1973).
6. Am I allowed to cite myself? Fuck it, I'm going to cite myself. See Mark Manson, “7 Strange Questions That Help You Find Your Life Purpose,” MarkManson.net, September 18, 2014, <https://markmanson.net/life-purpose>.
7. For data on religiosity and suicide, see Kanita Dervic, MD, et al., “Religious Affiliation and Suicide Attempt,” *American Journal of Psychiatry* 161, no. 12 (2004): 2303–8. For data on religiosity and depression, see Sasan Vasegh et al. “Religious and Spiritual Factors in Depression,” *Depression Research and Treatment*, published online September 18, 2012, doi: 10.1155/2012/298056.
8. Studies done in more than 132 countries show that the wealthier a country becomes, the more its population struggles with feelings of meaning and purpose. See Shigehiro Oishi and Ed Diener, “Residents of Poor Nations Have a Greater Sense of Meaning in Life than Residents of Wealthy Nations,” *Psychological Science* 25, no. 2 (2014): 422–30.

9. Pessimism is widespread in the wealthy, developed world. When the public opinion data company YouGov surveyed people in seventeen countries in 2015 on whether they believed the world was getting better, worse, or staying the same, fewer than 10 percent of people in the richest countries believed it was getting better. In the United States, only 6 percent said it was getting better. In Australia and France, that figure was only 3 percent. See Max Roser, “Good News: The World Is Getting Better. Bad News: You Were Wrong About How Things Have Changed,” August 15, 2018, World Economic Forum, <https://www.weforum.org/agenda/2018/08/good-news-the-world-is-getting-better-bad-news-you-were-wrong-about-how-things-have-changed>.
10. The books I refer to are Pinker’s *Enlightenment Now: The Case for Reason, Science, Humanism, and Progress* (New York: Viking, 2018), and Rosling’s *Factfulness: Ten Reasons We’re Wrong About the World—And Why Things Are Better Than You Think* (New York: Flatiron Books, 2018). I needle the authors a bit here, but these are two excellent and important books.
11. This cute “corner to corner” phrase is a riff on Andrew Sullivan’s excellent piece on this same topic. See Andrew Sullivan, “The World Is Better Than Ever. Why Are We Miserable?” *The Intelligencer*, March 9, 2018.
12. Max Roser and Esteban Ortiz-Ospina, “Global Rise of Education,” published online at OurWorldInData.org, 2018, <https://ourworldindata.org/global-rise-of-education>.
13. For an exhaustive treatment of the historical reduction in violence, Pinker’s book is indispensable. See Steven Pinker, *The Better Angels of Our Nature: Why Violence Has Declined* (New York: Penguin Books, 2012).
14. Pinker, *Enlightenment Now*, pp. 214–32.
15. *Ibid.*, pp. 199–213.
16. “Internet Users in the World by Regions, June 30, 2018,” pie chart, InternetWorldStats.com, <https://www.internetworldstats.com/stats.htm>.
17. Diana Beltekian and Esteban Ortiz-Ospina, “Extreme Poverty Is Falling: How Is Poverty Changing for Higher Poverty Lines?” March 5, 2018, OurWorldInData.org, <https://ourworldindata.org/poverty-at-higher-poverty-lines>.
18. Pinker, *The Better Angels of Our Nature*, pp. 249–67.
19. Pinker, *Enlightenment Now*, pp. 53–61.
20. *Ibid.*, pp. 79–96.
21. Vaccinations are probably the single greatest advancement in the past one hundred years. One study found that the WHO’s global vaccination campaign in the 1980s likely prevented more than twenty million cases of

dangerous diseases worldwide and saved \$1.53 trillion in health care costs. The only diseases ever eradicated entirely were eradicated due to vaccines. This is part of why the antivaccination movement is so infuriating. See Walter A. Orenstein and Rafi Ahmed, "Simply Put: Vaccinations Save Lives," *PNAS* 114, no. 16 (2017): 4031–33.

22. G. L. Klerman and M. M. Weissman, "Increasing Rates of Depression," *Journal of the American Medical Association* 261 (1989): 2229–35. See also J. M. Twenge, "Time Period and Birth Cohort Differences in Depressive Symptoms in the U.S., 1982–2013," *Social Indicators Research* 121 (2015): 437–54.

23. Myrna M. Weissman, PhD, Priya Wickramaratne, PhD, Steven Greenwald, MA, et al., "The Changing Rates of Major Depression," *JAMA Psychiatry* 268, 21(1992): 3098–105.

24. C. M. Herbst, "'Paradoxical' Decline? Another Look at the Relative Reduction in Female Happiness," *Journal of Economic Psychology* 32 (2011): 773–88.

25. S. Cohen and D. Janicki-Deverts, "Who's Stressed? Distributions of Psychological Stress in the United States in Probability Samples from 1983, 2006, and 2009," *Journal of Applied Social Psychology* 42 (2012): 1320–34.

26. For a harrowing and impassioned analysis of the opioid crisis ripping through North America, see Andrew Sullivan, "The Poison We Pick," *New York Magazine*, February 2018, <http://nymag.com/intelligencer/2018/02/americas-opioid-epidemic.html>.

27. "New Cigna Study Reveals Loneliness at Epidemic Levels in America," Cigna's Loneliness Index, May 1, 2018, <https://www.multivu.com/players/English/8294451-cigna-us-loneliness-survey/>.

28. The Edelman Trust Index finds a continued decline in social trust across most of the developed world. See "The 2018 World Trust Barometer: World Report," https://www.edelman.com/sites/g/files/aatuss191/files/2018-10/2018_Edelman_Trust_Barometer_Global_Report_FEB.pdf.

29. Miller McPherson, Lynn Smith-Lovin, and Matthew E. Brashears, "Social Isolation in America: Changes in Core Discussion Networks over Two Decades," *American Sociological Review* 71, no. 3 (2006): 353–75.

30. Wealthier countries, on average, have higher suicide rates than poorer countries. Data can be found from the World Health Organization, "Suicide Rates Data by Country," http://apps.who.int/gho/data/node.main.MH_SUICIDEASDR?lang=en. Suicide is also more prevalent in wealthier neighborhoods. See Josh Sanburn, "Why Suicides Are More Common in Richer Neighborhoods," *Time*, November 8, 2012, <http://business.time.com/2012/11/08/why-suicides-are-more-common-in-richer-neighborhoods/>.

31. Each of these is true, by the way.

32. My three-part definition of hope is a merging of theories on motivation, value, and meaning. As a result, I've kind of combined a few different academic models to suit my purposes.

The first is self-determination theory, which states that we require three things to feel motivated and satisfied in our lives: autonomy, competence, and relatedness. I've merged autonomy and competence under the umbrella of "self-control" and, for reasons that will become clear in chapter 4, restyled relatedness as "community." What's missing in self-determination theory—or, rather, what is implied—is that there is something *worth being motivated for, that there is something valuable in the world that exists and deserves to be pursued. That's where the third component of hope comes in: values.*

For a sense of value or purpose, I've pulled from Roy Baumeister's model of "meaningfulness." In this model, we need four things to feel that our life is meaningful: purpose, values, efficacy, and self-worth. Again, I've lumped "efficacy" under the "self-control" umbrella. The other three, I've put under the umbrella of "values," things we believe to be worthwhile and important and that make us feel good about ourselves. Chapter 3 will dissect at length my understanding of values. To learn more about self-determination theory, see R. M. Ryan and E. L. Deci, "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being," *American Psychologist* 55 (2000): 68–78. For Baumeister's model, see Roy Baumeister, *Meanings of Life* (New York: Guilford Press, 1991), pp. 29–56.

Chapter 2: Self-Control Is an Illusion

1. Elliot's case is adapted from Antonio Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain* (New York: Penguin Books, 2005), pp. 34–51. Elliot is the pseudonym given to the patient by Damasio.

2. This and many of the examples from his family life (Little League games, *Family Feud*, etc.) are fictionalized simply to illustrate the point. They are not from Damasio's account and probably didn't happen.

3. *Ibid.*, p. 38. Damasio uses the term *free will*, whereas I use the term *self-control*. Both can be thought of in self-determination theory as the need for autonomy (see Damasio, *Descartes' Error*, chap. 1, note 32).

4. Waits muttered the joke on Norman Lear's television show *Fernwood 2 Night* in 1977, but he didn't come up with it. Nobody knows where the joke originated, and if you try to find out online, you'll lose yourself down a rabbit hole of theories. Some have credited the joke to the writer Dorothy Parker, others to comedian Steve Allen. Waits himself claimed he didn't remember where he first heard it. He also admitted that the joke wasn't his.

5. Some early frontal lobotomies actually used icepicks. Walter Freeman, the biggest proponent of the procedure in the United States, used icepicks exclusively before moving away from them because too many were breaking off and getting stuck inside patients' heads. See Hernish J. Acharya, "The Rise and Fall of Frontal Leucotomy," in W. A. Whitelaw, ed., *The Proceedings of the 13th Annual History of Medicine Days* (Calgary: University of Calgary, Faculty of Medicine, 2004), pp. 32–41.
6. Yes, every neuroscientist in this book is named Antonio.
7. Gretchen Diefenbach, Donald Diefenbach, Alan Baumeister, and Mark West, "Portrayal of Lobotomy in the Popular Press: 1935–1960," *Journal of the History of the Neurosciences* 8, no. 1 (1999): 60–69.
8. There was an odd conspiracy theory among music journalists in the 1970s that Tom Waits faked his alcoholism. Articles and even entire books were written about this. While it's highly likely Waits exaggerated his "hobo poet" persona for performance value, he has openly commented on his alcoholism for years now. A recent example was in a 2006 interview with the *Guardian*, where he said, "I had a problem—an alcohol problem, which a lot of people consider an occupational hazard. My wife saved my life." See Sean O'Hagan, "Off Beat," *Guardian*, October 28, 2006, <https://www.theguardian.com/music/2006/oct/29/popandrocker1>.
9. Xenophon, *Memorabilia*, trans. Amy L. Bonnette (Ithaca, NY: Cornell University Press, 2014), book 3, chap. 9, p. 5.
10. René Descartes, *The Philosophical Works of Descartes*, trans. Elizabeth S. Haldane and G. R. T. Ross (1637; repr. New York: Cambridge University Press (1970), 1:101.
11. Kant actually argued that reason was the root of morality and that the passions were more or less irrelevant. To Kant, it didn't matter how you felt, as long as you did the right thing. But we'll get to Kant in chapter 6. See Immanuel Kant, *Groundwork to the Metaphysics of Morals*, trans. James W. Ellington (1785; repr. Indianapolis, IN: Hackett Publishing Company, Inc., 1993).
12. See Sigmund Freud, *Civilization and Its Discontents*, trans. James Strachey (1930; repr. New York: W. W. Norton and Company, 2010).
13. I know this because I'm unfortunately part of this industry. I often joke that I'm a "self-hating self-help guru." The fact is, I think most of the industry is bullshit and that the only way really to improve your life is not by feeling good but, rather, by getting better at feeling bad.
14. Great thinkers have cut the human mind into two or three pieces since forever. My "two brains" construct is just a summary of the concepts of these earlier thinkers. Plato said that the soul has three parts: reason (Thinking

Brain), appetites, and spirit (Feeling Brain). Hume said that all experiences are either impressions (Feeling Brain) or ideas (Thinking Brain). Freud had the ego (Thinking Brain) and the id (Feeling Brain). Most recently, Daniel Kahneman and Amos Tversky had their two systems, System 1 (Feeling Brain) and System 2 (Thinking Brain), or, as Kahneman calls them in his book *Thinking: Fast and Slow* (New York: Farrar, Straus and Giroux, 2011), the “fast” brain and the “slow” brain.

15. The “willpower as a muscle” theory of willpower, also known as “ego depletion,” is in hot water in the academic world at the moment. A number of large studies have failed to replicate ego depletion. Some meta-analyses have found significant results for it while others have not. It appears to all be up in the air at the moment.

16. Damasio, *Descartes' Error*, pp. 128–30.

17. Kahneman, *Thinking: Fast and Slow*, p. 31.

18. Jonathan Haidt, *The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom* (New York: Penguin Books, 2006), pp. 2–5. Haidt says he got the elephant metaphor from the Buddha.

19. This silly Clown Car analogy actually works well for describing how toxic relationships between selfish narcissists form. Anyone who is psychologically healthy, whose mind is not a Clown Car, will be able to hear a Clown Car coming from a mile away and avoid contact with it as much as possible. But if you are a Clown Car yourself, your circus music will prevent you from hearing the circus music of other Clown Cars. They will look and sound normal to you, and you will engage with them, thinking that all the healthy Consciousness Cars are boring and uninteresting, thus entering toxic relationship after toxic relationship.

20. Some scholars believe that Plato wrote *The Republic* as a response to the political turbulence and violence that had recently erupted in Athens. See *The Republic of Plato*, trans. Allan Bloom (New York: Basic Books, 1968), p. xi.

21. Christendom borrowed a lot of its moral philosophy from Plato and, unlike many ancient philosophers, preserved his works. According to Stephen Greenblatt, in *The Swerve: How the World Became Modern* (New York: W. W. Norton and Company, 2012), early Christians held on to the ideas of Plato and Aristotle because the two believed in a soul that was separate from the body. This idea of a separate soul gibed with Christian belief in an afterlife. It's also the idea that spawned the Classic Assumption.

22. Pinker, *The Better Angels of Our Nature*, pp. 4–18. The comment about chopping off someone's nuts is my own flourish, of course.

23. *Ibid.*, pp. 482–88.

24. The oft-repeated motto of Woodstock and much of the free-love movement of the 1960s was “If it feels good, do it!” This sentiment is the basis for a lot of New Age and countercultural movements today.
25. An excellent example of this self-indulgence in the name of spirituality is depicted in the Netflix original documentary *Wild, Wild Country* (2018), about the spiritual guru Bhagwan Shree Rajneesh (aka Osho) and his followers.
26. The best analysis I’ve seen of this tendency among twentieth-century spiritual movements to mistake indulging one’s emotions for some greater spiritual awakening came from the brilliant author Ken Wilber. He called it the Pre/Trans Fallacy and argued that because emotions are pre-rational, and spiritual awakenings are post-rational, people often mistake one for the other—because they’re both nonrational. See Ken Wilber, *Eye to Eye: The Quest for a New Paradigm* (Boston, MA: Shambhala, Inc., 1983), pp. 180–221.
27. A. Aldao, S. Nolen-Hoeksema, and S. Schweizer, S., “Emotion-Regulation Strategies Across Psychopathology: A Meta-analytic Review,” *Clinical Psychology Review* 30 (2010): 217–37.
28. Olga M. Slavin-Spenney, Jay L. Cohen, Lindsay M. Oberleitner, and Mark A. Lumley, “The Effects of Different Methods of Emotional Disclosure: Differentiating Post-traumatic Growth from Stress Symptoms,” *Journal of Clinical Psychology* 67, no. 10 (2011): 993–1007.
29. This technique is known as the Premack principle, after psychologist David Premack to describe the use of preferred behaviors as rewards. See Jon E. Roedelein, *Dictionary of Theories, Laws, and Concepts in Psychology* (Westport, CT: Greenwood Press, 1998), p. 384.
30. For more about “starting small” with behavioral changes, see “The Do Something Principle,” from my previous book, *The Subtle Art of Not Giving a F*ck: A Counterintuitive Approach to Living a Good Life* (New York: HarperOne, 2016), pp. 158–63.
31. One way to think about “guardrails” for your Consciousness Car is to develop implementation intentions, little if/then habits that can unconsciously direct your behavior. See P. M. Gollwitzer and V. Brandstatter, “Implementation Intentions and Effective Goal Pursuit,” *Journal of Personality and Social Psychology* 73 (1997): 186–99.
32. Damasio, *Descartes’ Error*, pp. 173–200.
33. In philosophy, this is known as Hume’s guillotine: you cannot derive an “ought” from an “is.” You cannot derive values from facts. You cannot derive Feeling Brain knowledge from Thinking Brain knowledge. Hume’s guillotine has had philosophers and scientists spinning in circles for centuries now. Some thinkers try to rebut it by pointing out that you can have

factual knowledge *about* values—e.g., if I believe suffering is wrong, then that is a fact *about* my belief but not the same thing as my belief being a fact. Put another way, you can have value-based facts, but you can never have fact-based values.

Chapter 3: Newton's Laws of Emotion

1. The biographical portions of this chapter are historical fiction.
2. Newton actually wrote this in a journal as a teen. See James Gleick, *Isaac Newton* (New York: Vintage Books, 2003), p. 13.
3. Nina Mazar and Dan Ariely, "Dishonesty in Everyday Life and Its Policy Implications," *Journal of Public Policy and Marketing* 25, no. 1 (Spring 2006): 117–26.
4. Nina Mazar, On Amir, and Dan Ariely, "The Dishonesty of Honest People: A Theory of Self-Concept Maintenance," *Journal of Marketing Research* 45, no. 6 (December 2008): 633–44.
5. So, if you're unfamiliar with Newton or don't remember your high school science, Newton is the godfather of modern physics. In terms of the impact of his discoveries, he is arguably the most influential thinker in world history. Among his many discoveries, his core ideas about physics (inertia, conserved force, etc.) were described in his Three Laws of Motion. Here, I present Newton's Three Laws of *Emotion*, a cheeky play on his original discoveries.
6. See Michael Tomasello, *A Natural History of Human Morality* (Cambridge, MA: Harvard University Press, 2016), pp. 78–81.
7. Damasio, *Descartes' Error*, pp. 172–89.
8. This is why passive aggression is unhealthy for relationships: It doesn't explicitly state where a person perceives a moral gap. Instead, it simply opens up another gap. You could say the root of interpersonal conflict comes from differing perceptions of moral gaps. You thought I was being an asshole. I thought I was being nice. Therefore, we have a conflict. But unless we openly state our values and what we each perceived, we will never be able to equalize or restore hope to the relationship.
9. This is an example of "intrinsic motivation," when the simple pleasure of doing an activity well, rather than an external reward, motivates you to continue doing that activity. See Edward L. Deci and Richard M. Ryan, *Intrinsic Motivation and Self-Determination in Human Behavior* (New York: Plenum Press, 1985), pp. 5–9.
10. You could say that negative emotions are rooted in a sense of losing control, while positive emotions are rooted in a sense of having control.

11. Tomasello, *A Natural History of Human Morality*, pp. 13–14.
12. Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984), pp. 27–54.
13. This also comes from David Hume, *An Enquiry Concerning Human Understanding*, ed. Eric Steinberg (1748; repr. Indianapolis, IN: Hackett Classics, 2nd ed., 1993), “Section §3: “Of the Association of Ideas”; and Hume, *A Treatise on Human Nature*, Book 2: *Of the Passions*, parts 1 and 2.
14. He didn’t invent the term, but I have to give credit to the psychologist Jordan Peterson’s interviews and lectures, as he has greatly popularized the term *value hierarchy* in recent years.
15. Manson, *The Subtle Art of Not Giving a F*ck*, pp. 81–89.
16. See Martin E. P. Seligman, *Helplessness: On Depression, Development, and Death* (New York: Times Books, 1975).
17. There is a third alternative: you can refuse to recognize the existence of a moral gap at all. You could call this forgiveness.
18. What’s interesting is that narcissistic people will even *justify* their pain with claims of their superiority. Ever hear the phrase “They hate me because they’re envious”? Or “They attack me because they’re afraid of me”? Or “They just don’t want to admit that I’m better than they”? The Feeling Brain merely flips its self-worth on its head: we’re not being harmed because we suck; we’re being harmed because we’re great! So, the narcissist goes from feeling that the self deserves nothing to feeling that the self deserves everything.
19. Ironically, he was kind of right. The Treaty of Versailles decimated Germany economically and was responsible for many of the internal struggles that allowed Hitler to rise to power. His “they hate us because we’re so great” style of messaging clearly resonated with the German beleaguered population.
20. I am referring to Elliot Rodger, who uploaded his creepy YouTube video “Elliot Rodger’s Retribution” just before driving to the sorority house.
21. Self-worth is an illusion because all values are illusory and based on faith (see chapter 4 for further discussion) and because the self is itself an illusion. For a discussion of this second idea, see Sam Harris, *Waking Up: A Guide to Spirituality Without Religion* (New York: Simon and Schuster, 2014), pp. 81–116.
22. David Foster Wallace talked about this “default setting” of consciousness in his wonderful speech “This Is Water.” See David F. Wallace, *This is Water: Some Thoughts, Delivered on a Significant Occasion, About Living a Compassionate Life* (New York: Little, Brown and Company, 2009), pp. 44–45.

23. This is popularly known as the Dunning-Kruger effect, named for the researchers who discovered it. See Justin Kruger and David Dunning, "Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments," *Journal of Personality and Social Psychology* 77, no. 6 (1999): 1121–34.
24. Max H. Bazerman and Ann E. Tenbrunsel, *Blind Spots: Why We Fail to Do What's Right and What to Do About It* (Princeton, NJ: Princeton University Press, 2011).
25. This is known as the false consensus effect. See Thomas Gilovich, "Differential Construal and the False Consensus Effect," *Journal of Personality and Social Psychology* 59, no. 4 (1990): 623–34.
26. Shout out to the late TV painter Bob Ross (RIP), who used to say, "There's no such thing as mistakes, just happy accidents."
27. This is known as the actor-observer bias, and it explains why everyone is an asshole. See Edward Jones and Richard Nisbett, *The Actor and the Observer: Divergent Perceptions of the Causes of Behavior* (New York: General Learning Press, 1971).
28. Basically, the more pain we experience, the larger the moral gap, and the larger the moral gap, the more we dehumanize ourselves and/or others, and the more we dehumanize ourselves and/or others, the more easily we justify causing suffering to ourselves or others.
29. The healthy response here would be (c), "some boys are shit," but when we experience extreme pain, our Feeling Brains generate intense feelings about entire categories of experience and are not able to make those distinctions.
30. Obviously, there are a lot of variables at work here: the girl's previously held values, her self-worth, the nature of the breakup, her ability to achieve intimacy, her age, ethnic, and cultural values, and so on.
31. A 2016 computer model study found that there are six types of stories: rise (rags to riches), fall (riches to rags), rise and then fall (Icarus), fall and then rise (man in a hole), rise and then fall and then rise (Cinderella), fall and then rise and then fall (Oedipus). These are all essentially permutations of the same good/bad experience, plus good/bad deserving. See Adrienne LaFrance, "The Six Main Arcs in Storytelling, as Identified by an A.I.," *The Atlantic*, July 12, 2016, <https://www.theatlantic.com/technology/archive/2016/07/the-six-main-arcs-in-storytelling-identified-by-a-computer/490733/>.
32. The field of psychology is in the midst of a "replicability crisis," that is, a large percentage of its major findings are failing to be replicated in further experiments. See Ed Yong, "Psychology's Replication Crisis Is Running Out of Excuses," *The Atlantic*, November 18, 2018, <https://www.theatlantic.com/science/archive/2018/11/psychologys-replication-crisis-real/576223/>.

33. Division of Violence Prevention, “The Adverse Childhood Experiences (ACE) Study,” National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Atlanta, GA, May 2014, <https://www.cdc.gov/violenceprevention/acestudy/index.html>.

34. Real-life Newton was actually a raging, vindictive asshole. And yes, he was a loner, too. He apparently died a virgin. And records suggest that he was probably quite proud of that fact.

35. This is what Freud incorrectly identified as repression. He believed that we spend our lives repressing our painful childhood memories, and by bringing them back into consciousness, we liberate the negative emotions bundled up inside ourselves. In fact, it turns out that remembering past traumas doesn't provide much benefit. Indeed, most therapy today focuses not so much on the past as on learning to manage future emotions.

36. People often mistake our core values for our personality, and vice versa. Personality is a fairly immutable thing. According to the “Big Five” personality model, one's personality consists of five basic traits: extraversion, conscientiousness, agreeableness, neuroticism, and openness to new experience. Our core values are judgments made early in life, based partly on personality. For instance, I might be highly open to new experiences, which thus inspires me to value exploration and curiosity from an early age. This early value will then play out in later experiences and create values related to it. Core values are difficult to dig up and change. Personality cannot be changed much, if at all. For more on the “Big Five” personality model, see Thomas A. Widiger, ed., *The Oxford Handbook of the Five Factor Model* (New York: Oxford University Press, 2017).

37. William Swann, Peter Rentfrow, and Jennifer Sellers, “Self-verification: The Search for Coherence,” *Handbook of Self and Identity* (New York: Guilford Press, 2003), pp. 367–83.

38. This is the law-of-attraction bullshit that's been around in the self-help industry for ages. For a thorough takedown of this type of nonsense, see Mark Manson, “The Staggering Bullshit of ‘The Secret,’” MarkManson.net, February 26, 2015, <https://markmanson.net/the-secret>.

39. The ability to remember past experiences and project future experiences occurs only with the development of the prefrontal cortex (the neurological name for the Thinking Brain). See Y. Yang and A. Raine, “Prefrontal Structural and Functional Brain Imaging Findings in Antisocial, Violent, and Psychopathic Individuals: A Meta-analysis,” *Psychiatry Research* 174, no. 2 (November 2009): 81–88.

40. Jocko Willink, *Discipline Equals Freedom: Field Manual* (New York: St. Martin's Press, 2017), pp. 4–6.

41. Martin Lea and Steve Duck, "A Model for the Role of Similarity of Values in Friendship Development," *British Journal of Social Psychology* 21, no. 4 (November 1982): 301–10.
42. This metaphor essentially says that the more we value something, the more unwilling we are to question or change that value, and therefore the more painful it is when that value fails us.
43. Freud called this the "narcissism of the small difference," and observed that it is usually groups of people with the most in common who feel the most hatred for one another. See Sigmund Freud, *Civilization and Its Discontents*, trans. David McLintock (1941; repr. New York: Penguin Books, 2002), pp. 50–51.
44. Tomasello, *A Natural History of Human Morality*, pp. 85–93.
45. This idea is known as "cultural geography." For a fascinating discussion, see Jared Diamond, *Guns, Germs and Steel: The Fates of Human Societies* (New York: W. W. Norton and Company, 1997).
46. Tomasello, *A Natural History of Human Morality*, pp. 114–15.
47. Or, as military theorist Carl von Clausewitz famously put it, "War is the continuation of politics by other means."
48. Real Isaac Newton's Laws of Motion also sat collecting dust for about twenty years before he dug them out and showed them to anyone.

Chapter 4: How to Make All Your Dreams Come True

1. Gustave Le Bon, *The Crowd: A Study of the Popular Mind* (1896; repr. New York: Dover Publications, 2002), p. 14.
2. Jonathan Haidt calls this phenomenon the hive hypothesis. See Jonathan Haidt, *The Righteous Mind: Why Good People Are Divided by Politics and Religion* (New York: Vintage Books, 2012), pp. 261–70.
3. Le Bon, *The Crowd*, pp. 24–29.
4. Barry Schwartz and Andrew Ward, "Doing Better but Feeling Worse: The Paradox of Choice," in P. Alex Linley and Stephen Joseph, *Positive Psychology in Practice* (Hoboken, NJ: John Wiley and Sons, 2004), pp. 86–103.
5. Adolescent brains continue to develop well into their twenties, particularly the parts of the brain responsible for executive functioning. See S. B. Johnson, R. W. Blum, and J. N. Giedd, "Adolescent Maturity and the Brain: The Promise and Pitfalls of Neuroscience Research in Adolescent Health Policy," *Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine* 45, no. 3 (2009): 216–21.
6. S. Choudhury, S. J. Blakemore, and T. Charman, "Social Cognitive Development During Adolescence," *Social Cognitive and Affective Neuroscience* 1, no. 3 (2006): 165–74.

7. This work in identity definition is the most important project of adolescents and young adults. See Erik H. Erikson, *Childhood and Society* (New York: W. W. Norton and Company, 1963), pp. 261–65.

8. My guess is that people like LaRouche aren't consciously exploitative. It's more likely that LaRouche himself was psychologically stuck at an adolescent level of maturity and therefore pursued adolescent causes and appealed to other lost adolescent people. See chapter 6.

9. The dialogue here is approximate based on my recollection. It was fifteen years ago, so obviously I don't remember exactly what was said.

10. I decided to look up where Sagan said this, and it turns out that, like most quotes found on the internet, someone else had said it, and fifty years before Sagan. Professor Walter Kotschnig was apparently the first one to be published saying it, in 1940. See <https://quoteinvestigator.com/2014/04/13/open-mind/>.

11. Eric Hoffer, *The True Believer: Thoughts on the Nature of Mass Movements* (New York: Harper Perennial, 1951), pp. 3–11.

12. *Ibid.*, pp. 16–21.

13. *Ibid.*, pp. 26–45.

14. What's interesting about Jesus is that the historical record implies that he likely began as a political extremist, attempting to lead an uprising against the Roman Empire's occupation of Israel. It was after his death that his ideological religion was transmuted into a more spiritual religion. See Reza Aslan, *Zealot: The Life and Times of Jesus of Nazareth* (New York: Random House Books, 2013).

15. This notion comes from Karl Popper's ideas about falsifiability. Popper, building on the work of David Hume, basically said that no matter how many times something has happened in the past, it can never logically be *proven* that it will happen again in the future. Even though the sun has risen in the east and set in the west every day for thousands of years and no one has ever had a contrary experience, this does not *prove* that the sun will rise in the east tomorrow. All it does is tell us the overwhelming probability of the sun rising in the east. Popper argued that the only empirical truth we can ever know is via not experimentation but, rather, falsifiability. Nothing can ever be proven. Things can only be *disproven*. Therefore, even something as mundane and obvious as the sun rising in the east and setting in the west is still believed on some degree of faith, even though it is almost entirely certain always to happen. Popper's ideas are important because they logically demonstrate that even scientific facts rely on some modicum of faith. You can do an experiment a million times and get the same result every time, but that does not prove it will happen the million and first time. At some point, we choose to rely on the belief that it will continue to happen once its

results are so statistically significant that it'd be insane not to believe them. For more on Popper's ideas about falsification, see Karl Popper, *The Logic of Scientific Discovery* (1959; repr. New York: Routledge Classics, 1992). What I find interesting is that mental illnesses that induce delusions, hallucinations, and such may, fundamentally, be dysfunctions of faith. Most of us take it for granted that the sun will rise in the east and that things fall to the ground at a certain rate and that we're not just going to float away because gravity decided to take a coffee break. But a mind that struggles to build and maintain faith in anything would potentially be tortured by these possibilities all the time, thus making it go mad.

16. Faith also assumes that your shit is real and that you aren't just a brain in a vat merely imagining all your sense perceptions—a favorite trope of philosophers. For a fun dive into whether you can ever actually know if anything exists, check out René Descartes's *Meditations on First Philosophy*.

17. The word *atheist* can signify a number of things. Here, I'm simply making the point that we all must buy into beliefs and values based on faith, even if they're not supernatural beliefs and values. See John Gray, *Seven Types of Atheism* (New York: Farrar, Straus and Giroux, 2018).

18. David Hume, *A Treatise of Human Nature*. Hume writes that “all knowledge degenerates into probability; and this probability is greater or less, according to our experience of the veracity or deceitfulness of our understanding, and according to the simplicity or intricacy of the question” (1739, part 4, section 1).

19. A God value is not the same thing as Pascal's “God-shaped hole.” Pascal believed that because man's desires were insatiable, only something infinite could ever satiate him—that infinite thing being God. A God value is different in that it is simply the top of one's value hierarchy. You might feel miserable and empty and still have a God value. In fact, the cause of your misery and emptiness is likely your chosen God value.

20. For further discussion on how superficial God values such as money affect your life, see M. Manson, “How We Judge Others Is How We Judge Ourselves,” MarkManson.net, January 9, 2014, <https://markmanson.net/how-we-judge-others>.

21. Like money or government or ethnicity, the “self” is also an arbitrary mental construct based on faith. There is no proof that your experience of “you” actually exists. It is merely the nexus of conscious experience, an interconnection of sense and sensibility. See Derek Parfit, *Reasons and Persons* (Cambridge, UK: Cambridge University Press, 1984), pp 199–280.

22. There are a number of ways to describe unhealthy forms of attachment to another person, but I went with the term *codependence* because of its wide-

spread mainstream usage. The word comes from Alcoholics Anonymous (AA). Alcoholics noticed that in the same way that they were addicted to the bottle, their friends and family were seemingly addicted to supporting and caring for them in their addiction. The alcoholics were dependent on alcohol to feel good and normal, and these friends and family members were “codependent,” as they used the alcoholics’ addiction to feel good about themselves. *Codependency* has since found more widespread use—basically, anyone who becomes “addicted” to supporting or receiving validation from another person can be described as codependent. Codependence is a strange form of worship, where you put a person on a pedestal and make him the center of your world, the basis of your thoughts and feelings, and the root of your self-esteem. In other words, you make the other person your God value. This, unfortunately, leads to extremely destructive relationships. See Melody Beattie, *Codependent No More: How to Stop Controlling Others and Care for Yourself* (Center City, MN: Hazelden Publishing, 1986); and Timmen L. Cermak MD, *Diagnosing and Treating Co-Dependence: A Guide for Professionals Who Work with Chemical Dependents, Their Spouses, and Children* (Center City, MN: Hazelden Publishing, 1998).

23. See discussion of “Hume’s guillotine,” from note 33 in chapter 2.

24. The Black Death killed one hundred million to two hundred million people in Europe in the fourteenth century, reducing the population by anywhere from 30 to 60 percent.

25. This refers to the infamous Children’s Crusade of 1212. After multiple failed crusades by Christians to retake the Holy Land from the Muslims, tens of thousands of children journeyed to Italy to volunteer to go to the Holy Land and convert Muslims peacefully. A charismatic leader promised the children that the sea would part once they reached the Mediterranean, allowing them to walk to Jerusalem on foot. Spoiler alert: It didn’t. Instead, merchant ships gathered up the children and took them across the sea to Tunisia, where most of them were sold into slavery.

26. Interestingly, you could say that money was invented as a way to tally and track moral gaps between people. We invented the concept of debt to justify our moral gaps—I did you this favor, so now you owe me something in return—and money was invented as a way of tracking and managing debt across a society. This is known as the “credit theory” of money, and it was first proposed by Alfred Mitchell Innes back in 1913, in a journal article titled “What Is Money?” For a nice overview of Mitchell Innes and the credit theory of money, see David Graeber, *Debt: The First 5,000 Years, Updated and Expanded Edition* (2011; repr. Brooklyn, NY: Melville House Publishing, 2014), pp. 46–52. For an interesting discussion of the importance of debt in human society, see Margaret Atwood, *Payback: Debt and the Shadow Side of Wealth* (Berkeley, CA: House of Anansi Press, 2007).

27. Okay, the ethnicities thing is a bit controversial. There *are* minor biological differences between populations with different ancestries, but differentiating among people based on those differences is also an arbitrary, faith-based action. For instance, who is to say that all green-eyed people aren't their own ethnicity? That's right. Nobody. Yet, if some king had decided hundreds of years ago that green-eyed people were a different race that deserved to be treated terribly, we'd likely be mired in political issues around "eye-ism" today.

28. You know, like what I'm doing with this book.

29. It's probably worth noting that there's a replicability crisis going on in the social sciences. Many of the major "findings" in psychology, economics, and even medicine are not able to be replicated consistently. So, even if we could easily handle the complexity of measuring human populations, it would still be incredibly difficult to find consistent, empirical evidence that one variable had an outweighed influence over another. See Ed Yong, "Psychology's Replication Crisis Is Running Out of Excuses," *The Atlantic*, Nov. 19, 2018, <https://www.theatlantic.com/science/archive/2018/11/psychology-replication-crisis-real/576223/>.

30. All my life, I've been fascinated by how athletes go from heroes to villains and back to heroes again. Tiger Woods, Kobe Bryant, Michael Jordan, and Andre Agassi have all been demigods in people's minds. Then, one unseemly revelation caused each to become a pariah. This relates back to what I said in chapter 2 about how the superiority/inferiority of the person can flip-flop easily because what remains the same is the magnitude of the moral gap. With someone like Kobe Bryant, whether he's a hero or a villain, what remains the same is the intensity of our emotional reaction to him. And that intensity is caused by the size of the moral gap that is felt.

31. I have to give a shout-out to Yuval Noah Harari and his brilliant book *Sapiens: A Brief History of Humankind* (New York: HarperCollins, 2015) for the description of governments, financial institutions, and other social structures as mythic systems that exist thanks only to the shared beliefs of a population. Harari synthesized many of these ideas first, and I'm just riffing on him. The whole book is worth a read.

32. Pair bonding and reciprocal altruism are two evolutionary strategies that emerge in consciousness as emotional attachment.

33. The definition of "spiritual experience" I'm most fond of is that it's a trans-egoic experience—meaning, your identity or sense of "self" transcends your body and consciousness and expands to include all perceived reality. Trans-egoic experiences can be achieved in a variety of ways: psychedelic drugs, intense meditation for long periods, and moments of extreme love and passion. In these heightened states, you can "meld" into your part-

ner, feeling as though you are the same being, thus temporarily achieving a trans-egoic state. This “melding” with someone else (or the universe) is why spiritual experiences are often perceived as “love,” as they are both a surrendering of one’s ego-identity and unconditional acceptance of some greater entity. For a cool explanation of this kind of stuff based on Jungian psychology, see Ken Wilber, *No Boundary: Eastern and Western Approaches to Personal Growth* (1979; repr. Boston, MA: Shambhala, 2001).

34. As countries industrialize, their religiosity drops precipitously. See Pippa Norris and Ronald Inglehart, *Sacred and Secular: Religion and Politics Worldwide*, 2nd ed. (2004; repr. New York: Cambridge University Press, 2011), pp. 53–82.

35. René Girard, *Things Hidden Since the Foundation of the World*, trans. Stephen Bann and Michael Metteer (repr. 1978; Stanford, CA: Stanford University Press, 1987), pp. 23–30.

36. Similar to science being a religion in which we worship evidence, humanism could be seen as worshipping the “in-betweenism” of all people—that there are no inherently good or evil people. As Aleksandr Solzhenitsyn put it, “The line dividing good and evil cuts through the heart of every human being.”

37. Sadly, these conspiracy theories are prominent in the United States today.

38. I’m being a bit dramatic, but human sacrifice did occur in pretty much every major ancient and prehistoric civilization we know of. See Nigel Davies, *Human Sacrifice in History and Today* (New York: Hippocrene Books, 1988).

39. For an interesting discussion of innate guilt and the role of human sacrifice, see Ernest Becker, *Escape from Evil* (New York, NY: Freedom Press, 1985).

40. Freud, *Civilization and Its Discontents*, pp. 14–15.

41. *Ibid.*, p. 18.

42. Manson, *The Subtle Art of Not Giving a F*ck*, pp. 23–29.

43. E. O. Wilson, *On Human Nature* (1978; repr. Cambridge, MA: Harvard University Press, 2004), pp. 169–92.

44. Reasoning skills break down when one is confronted with emotionally charged issues (i.e., issues that touch our highest values). See Vladimíra Čavojská, Jakub Šrol, and Magdalena Adamus, “My Point Is Valid; Yours Is Not: My-Side Bias in Reasoning About Abortion,” *Journal of Cognitive Psychology* 30, no. 7 (2018): 656–69.

45. Actually, you may suck even more. Research shows that the more well informed and educated someone is, the more politically polarized his

opinions. See T. Palfrey and K. Poole, “The Relationship Between Information, Ideology, and Voting Behavior,” *American Journal of Political Science* 31, no. 3 (1987): 511–30.

46. This idea was first published in F. T. Cloak Jr., “Is a Cultural Ethology Possible?” *Human Ecology* 3, no. 3 (1975): 161–82. For a less academic discussion, see Aaron Lynch, *Thought Contagion: How Beliefs Spread Through Society* (New York: Basic Books, 1996), pp. 97–134.

Chapter 5: Hope Is Fucked

1. Nietzsche first announced the death of God in 1882, in his book *The Gay Science*, but the quote is most famously associated with *Thus Spoke Zarathustra*, which was released in four parts from 1883 to 1885. After the third part, all publishers refused to have anything to do with the project, and Nietzsche therefore had to scrape together the money to publish the fourth part himself. That’s the book that sold fewer than forty copies. See Sue Prideaux, *I Am Dynamite!: A Life of Nietzsche* (New York: Tim Dugan Books, 2018), pp. 256–60.

2. Everything spoken by Nietzsche in this chapter is an actual line lifted from his work. This one comes from F. Nietzsche, *Beyond Good and Evil*, trans. Walter Kaufmann (1887; repr. New York: Vintage Books, 1963), p. 92.

3. The story of Nietzsche with Meta in this chapter is loosely adapted from his summers with a handful of women (the others being Helen Zimmern and Resa von Schirnhöfer) over 1886–87. See Julian Young, *Friedrich Nietzsche: A Philosophical Biography* (Cambridge, UK: Cambridge University Press, 2010), pp. 388–400.

4. Friedrich Nietzsche, *Ecce Homo*, trans. by R. J. Hollingdale (1890; repr. New York: Penguin Classics, 1979), p. 39.

5. Some anthropologists have gone so far as to call agriculture, because of its inevitable tendency to create inequality and social stratification, “the worst mistake in the history of the human race.” See Jared Diamond’s famous essay “The Worst Mistake in the History of the Human Race,” *Discover*, May 1987, <http://discovermagazine.com/1987/may/02-the-worst-mistake-in-the-history-of-the-human-race>.

6. Nietzsche’s initial description of master and slave moralities comes from *Beyond Good and Evil*, 204–37. He expounds on each morality further in *The Genealogy of Morality* (1887). The second essay in *The Genealogy of Morality* (New York: Penguin Classics, 2014) is where I was first exposed to the concept of “the moral gap” discussed in chapter 3. Nietzsche argues that each of our individual moralities is based on our sense of debt.

7. Haidt, *The Righteous Mind*, pp. 182–89.

8. Richard Dawkins, *The Selfish Gene: 30th Anniversary Edition* (Oxford, UK: Oxford University Press, 2006), pp. 189–200.

9. It's interesting that most polytheistic religions haven't had this obsession with conversion that the monotheistic religions have had. The Greeks and Romans were more than happy to let the indigenous cultures follow their own beliefs. It wasn't until slave morality that the religious Crusades began. This is probably because a slave morality religion cannot abide cultures that hold different beliefs. Slave moralities require the world to be equal—and to be equal, you cannot be different. Therefore, those other cultures had to be converted. This is the paradoxical tyranny of any extremist left-wing belief system. When equality becomes one's God value, differences in belief cannot be abided. And the only way to destroy difference in belief is through totalitarianism.

10. See Pinker, *Enlightenment Now*, pp. 7–28.

11. My biggest qualm with Pinker's book is that he conflates the scientific revolution with the philosophical Enlightenment. The scientific revolution predates the Enlightenment and is independent of the latter's humanistic beliefs. This is why I make a point of stressing that *science*, and not necessarily Western ideologies, is the best thing to have happened in human history.

12. Estimates of GDP per capita growth done by author with data from Angus Maddison, *The World Economy: A Millennial Perspective*, Organisation for Economic Co-operation and Development (OECD), 2006, p. 30.

13. There is evidence that populations become more religious immediately after natural disasters. See Jeanet Sinding Bentzen, "Acts of God? Religiosity and Natural Disasters Across Subnational World Districts," University of Copenhagen Department of Economics Discussion Paper No. 15-06, 2015, <http://web.econ.ku.dk/bentzen/ActsofGodBentzen.pdf>.

14. There's no written record of Nietzsche's thoughts on communism, but he surely must have been aware of it. And given his disgust for slave morality in general, he almost certainly loathed it. His beliefs in this regard have long been mistaken for being a precursor to Nazism, but Nietzsche hated the German nationalism burgeoning during his lifetime and had a falling-out over it with a number of friends (most notably Wagner). Nietzsche's own sister and brother-in-law were ardent nationalists and anti-Semites. He found both beliefs to be stupid and offensive, and said as much to them. In fact, his globalist view of the world was rare and radical at the time. He strictly believed in the value of a person's deeds, nothing else—no system, no race, no nationality. When his sister told him that she and her husband were moving to Paraguay to start a New Germania, where people could breed a society from pure German blood, he is said to have laughed in her face so hard that she didn't speak to him again for years. It's tragic, then (and

ironic), that his work would be co-opted and warped by Nazi ideology after his death. Sue Prideaux gives a stirring account of how his philosophy came to be corrupted, and the slow, fifty-year rehabilitation it went through to get the reading it deserves. See Prideaux, *I Am Dynamite!*, pp. 346–81.

15. Buddhist philosophy would describe these cycles of hope creation and destruction as *samsara*, which is generated and perpetuated due to our attachments to worldly, impermanent values. The Buddha taught that the fundamental nature of our psychology is *dukkha*, a concept loosely translated as “craving.” He warned that human cravings can never be satiated, and that we generate suffering in our constant quest to fulfill those cravings. The idea of relinquishing hope is very much in line with the Buddhist idea of reaching *nirvana*, or letting go of all psychological attachments or cravings.

16. Nietzsche, *Ecce Homo*, pp. 96–104.

17. The Pandora’s Box myth, as told in this section, comes from Hesiod’s *Work and Days*, lines 560–612.

18. This is kind of a joke, but also kind of not. For the horrific origins of matrimony in the ancient world, see Stephanie Coontz, *Marriage, a History: How Love Conquered Marriage* (New York: Penguin Books, 2006), pp. 70–86.

19. Apparently, the Greek word Hesiod used for “hope” could also be translated as “deceptive expectation.” Thus, there has always been a less popular, pessimistic interpretation of the myth based on the idea that hope can also lead to destruction. See Franco Montanari, Antonios Rengakos, and Christos Tsagalis, *Brill’s Companion to Hesiod* (Leiden, Netherlands: Brill Publishers, 2009), p. 77.

20. Nietzsche, *Ecce Homo*, pp. 37–38.

21. Friedrich Nietzsche, *The Gay Science*, trans. Walter Kaufmann (1882; repr. New York: Vintage Books, 1974), §341: 273–74.

22. The beginning of his rant about God being dead comes from the “Madman” section of *ibid.*, §125: 181–82.

23. This “impassioned and lengthy” speech to cows near Lake Silvaplana actually happened, according to Meta von Salis. It was possibly one of Nietzsche’s first episodes of psychosis, which began to surface around this time. See Young, *Friedrich Nietzsche*, p. 432.

24. The rest of Nietzsche’s lines in this chapter come from Friedrich Nietzsche, *Thus Spoke Zarathustra*, trans. R. J. Hollingdale (1883; repr. New York: Penguin Classics, 2003), p. 43. “[H]e is an overture to something greater” is my own interpretation. The original text reads, “[H]e is a going-across.”

Chapter 6: The Formula of Humanity

1. M. Currey, *Daily Routines: How Artists Work* (New York: Alfred A. Knopf, 2013), pp. 81–82.
2. Immanuel Kant, *The Metaphysics of Morals*, ed. Lara Denis, trans. Mary Gregor (1797; repr. Cambridge, UK: Cambridge University Press, 2017), p. 34.
3. In his 1795 essay “Towards Perpetual Peace,” Kant proposed a world governing body. See Immanuel Kant, *Perpetual Peace and Other Essays*, trans. Ted Humphrey (1795; repr. Indianapolis, IN: Hackett Publishing Company, 1983), pp. 107–44.
4. S. Palmquist, “The Kantian Grounding of Einstein’s Worldview: (I) The Early Influence of Kant’s System of Perspectives,” *Polish Journal of Philosophy* 4, no. 1 (2010): 45–64.
5. Granted, he suggested it hypothetically. He said that if animals were capable of will and reason, they should be afforded the same rights as humans. He didn’t believe that animals had will or reason—although, today there’s a strong argument that they do. For a discussion of this, see Christine M. Korsgaard, “A Kantian Case for Animal Rights,” in *Animal Law: Developments and Perspectives in the 21st Century*, ed. Margot Michael, Daniela Kühne, and Julia Hänni (Zurich: Dike Verlag, 2012), pp. 3–27.
6. Hannah Ginsborg, “Kant’s Aesthetics and Teleology,” *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2014, <https://plato.stanford.edu/archives/fall2014/entries/kant-aesthetics>.
7. The dispute was between “rationalists” and “empiricists,” and the book was Kant’s most famous work, *Critique of Pure Reason*.
8. Kant sought to build an entire ethical system solely with reason. He attempted to cross that gap between Feeling Brain values and Thinking Brain logic and facts. I won’t get into the intricacies of Kantian ethics here, as there are many flaws in Kant’s system. For this chapter, I have merely plucked what I believe to be the most useful principle and conclusion from Kant’s ethics: the Formula of Humanity.
9. If you’re an astute reader, you will have picked up on a subtle contradiction here. Kant sought to develop a value system that existed outside the subjective judgments of the Feeling Brain. Yet the desire to build a value system on reason alone *is itself a subjective judgment made by the Feeling Brain*. Put another way, couldn’t you say that Kant’s desire to create a value system that transcended the confines of religion was itself a religion? This was Nietzsche’s criticism of Kant. Nietzsche *hated* Kant; in fact, he thought him a fucking joke. He found Kant’s ethical system absurd and his belief that he had transcended faith-based subjectivity naïve at best and outright

narcissistic at worst. Therefore, it will strike readers with a background in philosophy as strange that I'm relying on the two of them so much for my book's argument. Yet I don't see much of an issue. I think that each man got something right that the other missed. Nietzsche got it right that all human beliefs are inherently imprisoned by our own perspectives and are, therefore, faith-based. Kant got it right that some value systems produce better and more logical results than others due to their potentially universal desirability. So, technically, yes, Kant's ethical system is another form of faith-based religion. But I also think that in the same way that science, and its belief in putting one's faith in that for which there is the most evidence, produces the best belief systems, Kant stumbled upon the best basis for creating value systems—that is, one should value that which perceives value above all else: consciousness.

10. In terms of maximizing fucks given, Kant's lifestyle choices would probably make him the world champion. See Manson, *The Subtle Art of Not Giving a F*ck*, pp. 15–19.

11. This statement could be interpreted in a number of ways. The first interpretation is that Kant managed to step outside the subjective space of Feeling Brain value judgments to create a universally applicable value system. Philosophers two hundred fifty years later are still arguing about whether he accomplished this—most say he didn't. (See note 9 in this chapter for my take.) The second interpretation is that Kant ushered in an age of nonsupernatural views of morality—the belief that morality could be deduced *outside* spiritual religions. This is absolutely true. Kant set the stage for a scientifically pursued moral philosophy that continues today. The third interpretation of this statement is that I'm just hyping Kant to keep people interested in the chapter. This is also absolutely true.

12. It is important to point out that I will be applying Kant's ideas in this chapter in ways he never applied them himself. The chapter is a strange three-way marriage of Kantian ethics, developmental psychology, and virtue theory. Buckle up and enjoy the ride.

13. The developmental framework in this chapter is derived from (and simplifies) the work of Jean Piaget, Lawrence Kohlberg, Robert Kegan, Erik Erikson, Søren Kierkegaard, and others. In Kegan's model, my definition of "childhood" maps his Stages 1 and 2 (Impulsive and Imperials), my definition of "adolescence" maps his Stages 3 and 4 (Interpersonal and Institutional), and my "adulthood" maps his Stage 5 (Institutional and Interindividual). For more on Kegan's model, see R. Kegan, *The Evolving Self: Problem and Process in Human Development* (Cambridge, MA: Harvard University Press, 1982). In Kohlberg's model, my "childhood" maps his Preconventional stage of moral development (Obedience and Punishment

orientation and Instrumental orientations), my “adolescence” maps his Conventional stage of moral development (Good Boy/Nice Girl and Law-and-Order orientations), and my “adulthood” maps his Postconventional stage of moral development (Social Contract and Universal-Ethical-Principle orientations). For more on Kohlberg’s model, see L. Kohlberg, “Stages of Moral Development,” *Moral Education* 1, no. 51 (1971): 23–92. In Piaget’s model, my “childhood” maps his Sensorimotor and Preoperational stages, my “adolescence” maps his Concrete Operational stage, and my “adulthood” loosely maps his later Formal Operational stage. For more about Piaget’s model of moral development, see J. Piaget, “Piaget’s Theory,” *Piaget and His School* (Berlin and Heidelberg: Springer, 1976), pp. 11–23.

14. The development of rules and roles occurs in Piaget’s Concrete Operational stage and Kegan’s Interpersonal stage. See note 13.

15. Kegan, *The Evolving Self*, pp. 133–60.

16. Children do not develop what is called the “theory of mind” until ages three to five. Theory of mind is said to be present when someone is able to understand that other people have conscious thoughts and behaviors independent of them. Theory of mind is necessary for empathy and most social interactions—it’s how you understand someone else’s perspective and thinking process. Children who struggle to develop theory of mind are often diagnosed as being on the autism spectrum or having schizophrenia, ADHD, or some other problem. See B. Korkmaz, “Theory of Mind and Neurodevelopmental Disorders in Childhood,” *Pediatric Research* 69 (2011): 101R–8R.

17. The philosopher Ken Wilber has a wonderful phrase to describe this process of psychological development. He says that later developmental stages “transcend and include” previous stages. So, an adolescent still has his pleasure- and pain-based values, but higher-level values based on rules and roles supersede the lower, childish values. We all still like ice cream, even once we’re adults. The difference is the adult is able to prioritize higher, abstract values such as honesty or prudence over his love of ice cream; a child is not. See K. Wilber, *Sex, Ecology, Spirituality: The Spirit of Evolution* (Boston, MA: Shambhala, 2000), pp. 59–61.

18. Recall from Emo Newton’s Second and Third Laws that stronger, sturdier identities grant us more emotional stability in the face of adversity. One reason that children are so emotionally volatile is because their understanding of themselves is flimsy and superficial, so unexpected or painful events affect them that much more.

19. Teenagers are obsessively focused on what their peers think of them because they are cobbling together identities for themselves based on social

rules and roles. See Erikson, *Childhood and Society*, pp. 260–66; and Kegan, *The Evolving Self*, pp. 184–220.

20. This is where I first begin to merge Kant’s moral system with developmental theory. Treating people as means rather than ends is representative of Stages 2–4 in Kohlberg’s theory of moral development.

21. Albert Camus put it well when he said, “You will never be happy if you continue to search for what happiness consists of.”

22. Again, fusing Kohlberg’s Stages 5 and 6 with Kant’s “thing in itself” requirement for moral universalization.

23. According to Kohlberg’s model of moral development, by age thirty-six, 89 percent of the population has achieved the adolescent stage of moral reasoning; only 13 percent ever achieve the adult stage. See L. Kohlberg, *The Measurement of Moral Judgment* (Cambridge, MA: Cambridge University Press, 1987).

24. Just as the adolescent bargains with other people, she bargains with future (or past) selves in a similar manner. This idea that our future and past selves are independent individuals separate from our present-moment perceptions is put forth by Derek Parfit in *Reasons and Persons*, pp. 199–244.

25. Remember, we derive our self-esteem from how well we live up to our values (or how well we reinforce the narratives of our identity). An adult develops values based on abstract principles (virtues) and will derive his self-esteem from how well he adheres to those principles.

26. We all require a “Goldilocks” amount of pain to mature and develop. Too much pain traumatizes us—our Feeling Brain becomes unrealistically fearful of the world, preventing any further growth or experience. Too little pain, and we become entitled narcissists, falsely believing the world can (and should!) revolve around our desires. But if we get the pain just right, then we learn that (a) our current values are failing us, and (b) we have the power and ability to transcend those values and create newer, higher-level, more-encompassing values. We learn that it’s better to have compassion for everyone rather than just our friends, that it’s better to be honest in all situations rather than simply the situations that help us, and that it’s better to maintain humility, even when we’re confident in our own rightness.

27. In chapter 3, we learned that abuse and trauma generate low self-esteem, narcissism, and a self-loathing identity. These inhibit our ability to develop higher-level, abstract values because the pain of failure is constant and too intense—the child must spend all her time and energy escaping it. Growth requires engaging the pain, as we’ll see in chapter 7.

28. See J. Haidt and G. Lukianoff, *The Coddling of the American Mind: How Good Intentions and Bad Ideas Are Setting Up a Generation for Failure* (New York: Penguin Press, 2018), pp. 150–65.

29. See F. Fukuyama, *Trust: The Social Virtues and the Creation of Prosperity* (New York: Free Press Books, 1995), pp. 43–48.
30. A great example of this phenomenon was the Pickup Artist (PUA) community in the mid-2000s, a group of socially isolated, maladapted males who congregated to study social behaviors in order to be liked by women. The movement didn't last for more than a few years because, ultimately, these were childish and/or adolescent men who desired adult relationships, and no amount of studying of or practice in social behaviors can produce a nontransactional, unconditional loving relationship with a partner.
31. Another way to think about this is the popular concept of “tough love.” You allow the child to experience pain because it is by recognizing what still matters in the face of the pain that she achieves higher values and grows.
32. So far I've been ambiguous as to what I mean by “virtues.” This is partly because different philosophers and religions embraced different virtues.
33. Kant, *Groundwork to the Metaphysics of Morals*, pp. 9–20.
34. It's important to note that Kant's derivation of the Formula of Humanity was not based on moral intuition, nor on the ancient concept of virtue—these are connections I am making.
35. Kant, *Groundwork of the Metaphysics of Morals*, pp. 40–42.
36. And here is where all three come together. The Formula of Humanity is the underlying principle of the virtues of honesty, humility, bravery, and so on. These virtues define the highest stages of moral development (Kohlberg's Stage 6; Kegan's Stage 5).
37. The keyword here is *merely*. Kant admits that it's impossible never to use anyone as a means. If you treated everyone unconditionally, you would be forced to treat yourself conditionally, and vice versa. But our actions toward ourselves and others are multilayered. I can treat you as a means *and* an end at the same time. Maybe we're working on a project together, and I encourage you to work longer hours both because I think it will help you and because I believe it will help me. This is fine, in Kant's book. It's only when I'm manipulating you purely for selfish reasons that I veer into being unethical.
38. Kant's Formula of Humanity perfectly describes the principle of consent in sex and relationships. Not to seek explicit consent, either from the other person or from yourself, is to treat one or both of you merely as a means in the pursuit of pleasure. Explicit consent means actively treating the other person as an end and the sex as a means.
39. In other words, people who treat themselves as means will treat others as means. People who don't respect themselves won't respect others. People who use and destroy themselves will use and destroy others.

40. Ideological extremists usually look to some great leader. Spiritual extremists tend to think that the apocalypse is coming and that their savior will descend from heaven and pour them a coffee or something.
41. It is possible that all God values that do not adhere to the Formula of Humanity end in paradox. If you are willing to treat humanity as a means to gain greater freedom or equality, then you will inevitably destroy freedom and equality. More on this in chapters 7 and 8.
42. By political extremism, I mean any political movement or party that is inherently antidemocratic and willing to subvert democracy in favor of some ideological (or theological) religious agenda. For a discussion of these developments around the world, see F. Fukuyama, *Identity: The Demand for Dignity and the Politics of Resentment* (New York: Farrar, Straus and Giroux, 2018).
43. Globalization, automation, and income inequality are popular explanations with a lot of merit.

Chapter 7: Pain Is the Universal Constant

1. The study this section describes is David Levari et al., "Prevalence-Induced Concept Change in Human Judgment," *Science*, June 29, 2018, pp. 1465–67.
2. Prevalence-induced concept change measures how our perceptions are altered by the prevalence of an expected experience. I will be using "Blue Dot Effect" in this chapter a bit more widely to describe *all* shifting of perception based on expectations, not just prevalence-induced expectations.
3. Whenever I see a news story about college kids freaking out over a campus speaker they don't like and equating offensive speech with trauma, I wonder what Witold Pilecki would have thought.
4. Haidt and Lukianoff, *The Coddling of the American Mind*, pp. 23–24.
5. Andrew Fergus Wilson, "#whitegenocide, the Alt-right and Conspiracy Theory: How Secrecy and Suspicion Contributed to the Mainstreaming of Hate," *Secrecy and Society*, February 16, 2018.
6. Emile Durkheim, *The Rules of Sociological Method and Selected Texts on Sociology and Its Method* (New York: Free Press, 1982), p. 100.
7. Hara Estroff Marano, "A Nation of Wimps," *Psychology Today*, November 1, 2004, <https://www.psychologytoday.com/us/articles/200411/nation-wimps>.
8. These three false Einstein quotes were gathered from M. Novak, "9 Albert Einstein Quotes That Are Totally Fake," *Gizmodo*, March 14, 2014, <https://paleofuture.gizmodo.com/9-albert-einstein-quotes-that-are-totally-fake-1543806477>.

9. P. D. Brickman and D. T. Campbell, "Hedonic Relativism and Planning the Good Society," in M. H. Appley, ed. *Adaptation Level Theory: A Symposium* (New York: Academic Press, 1971).
10. Recent research has challenged this and found that extremely traumatic events (the death of a child, for instance) can permanently alter our "default level" of happiness. But the "baseline" happiness remains true through the vast majority of our experiences. See B. Headey, "The Set Point Theory of Well-Being Has Serious Flaws: On the Eve of a Scientific Revolution?" *Social Indicators Research* 97, no. 1 (2010): 7–21.
11. Harvard psychologist Daniel Gilbert refers to this as our "psychological immune system": no matter what happens to us, our emotions, memories, and beliefs acclimate and alter themselves to keep us at mostly-but-not-completely happy. See D. Gilbert, *Stumbling on Happiness* (New York: Alfred A. Knopf, 2006), pp. 174–77.
12. By "we," I am referring to our perceived experience. Basically, we don't question our perceptions; we question the world—when, in fact, our perceptions often alter themselves, even if the world doesn't.
13. It's actually not the same as the Blue Dot Effect—it's "pain habituation"—but both phenomena have a similar effect: our experiences don't change, but our perceptions of those experiences change based on our expectations. Throughout this chapter, I don't use the Blue Dot Effect in the exact scientific way that the researchers studied prevalence-induced concept change. I'm essentially using it as an analogy for and example of a larger psychological phenomenon that takes place: our perceptions adapt to our preset emotional tendencies and expectations, not the other way around.
14. See J. S. Mill, *Utilitarianism* (1863).
15. P. Brickman, D. Coates, and R. Janoff-Bulman, "Lottery Winners and Accident Victims: Is Happiness Relative?" *Journal of Personality and Social Psychology* 36, no. 8 (1978): 917–27.
16. A. Schopenhauer, *Essays and Aphorisms*, trans. R. J. Hollingdale (New York: Penguin Classics, 1970), p. 41.
17. In case you ask me anyway, they cut Vietnam in half because they wanted to avoid the fighting that had occurred in Korea in the previous decade. They figured that splitting the country in two, as they had in Korea, was most likely to maintain peace. Spoiler alert: it didn't.
18. Shout out to Boston University's International Relations department. That one's for you.
19. David Halberstam, *The Making of a Quagmire* (New York: Random House, 1965), p. 211.

20. Zi Jun Toong, "Overthrown by the Press: The US Media's Role in the Fall of Diem," *Australasian Journal of American Studies* 27 (July 2008): 56–72.
21. Malcolm Browne, the photographer who took the photo, later said, "I just kept shooting and shooting and shooting and that protected me from the horror of the thing."
22. In chapter 2, we talked about the Classic Assumption, and how it fails because it tries to suppress the Feeling Brain rather than trying to align with it. Another way to think of the practice of antifragility is like the practice of aligning with one's Feeling Brain, by engaging with pain in such a way that you're able, through will and awareness, to harness the Feeling Brain's impulses and channel them into some productive action or behavior. It's no wonder that meditation has been scientifically shown to increase attention span and self-awareness and reduce addiction, anxiety, and stress. Meditation is essentially a practice for managing the pain of life. See Matthew Thorpe, "12 Science-Based Benefits of Meditation." *Healthline*, July 15, 2017, <https://www.healthline.com/nutrition/12-benefits-of-meditation>.
23. N. N. Taleb, *Antifragile: Things That Gain from Disorder* (New York: Random House, 2011).
24. This is actually an excellent litmus test for figuring out if you should be with someone: do *external* stressors bring you closer together or not?
25. While I'm ripping on meditation apps here, I do want to say that they're good introductions to the practice. They're just . . . introductory.
26. I am the world's biggest proponent of meditation who seemingly can never actually get himself to sit down and fucking meditate. One good technique a friend of mine, who teaches meditation, taught me: when you're struggling to get yourself to meditate, simply find the number of minutes that's not intimidating for you. Most people try to do ten or fifteen minutes. If that seems daunting, agree with yourself to do five. If *that* seems daunting, lower it to three. If that seems daunting, lower it to one. (Everyone can do one minute!) Basically, keep lowering the number of minutes in your "agreement" with your Feeling Brain until it doesn't *feel* scary anymore. Once again, this is simply your Thinking Brain negotiating with your Feeling Brain until you're able to align them and do something productive. This technique works wonders with other activities, by the way. Working out, reading a book, cleaning the house, writing a book (*cough*)—in every case, just lower the expectation until it stops feeling scary.
27. See Ray Kurzweil, *The Singularity Is Near: When Humans Transcend Biology* (New York: Penguin Books, 2006).
28. Pinker makes the argument that the gains in physical health and safety more than compensate for any increases in anxiety and stress. He also

makes the argument that adulthood requires greater degrees of anxiety and stress due to increased responsibilities. That's probably true—for example, we wouldn't go back to childhood if offered the choice—but that doesn't mean our anxiety and stress aren't serious problems. See Pinker, *Enlightenment Now*, pp. 288–89.

29. In my previous book, this is how I define a “good life.” Problems are inevitable. A good life is a life with good problems. See M. Manson, *The Subtle Art of Not Giving a F*ck*, pp. 26–36.

30. This is why addiction produces a downward spiral: numbing ourselves to pain numbs us to meaning and an ability to find value in anything, thus generating greater pain, and thus inducing greater numbing. This continues until one reaches “rock bottom,” a place of such immense pain that you can't numb it anymore. The only way to relieve it is by engaging it and growing.

Chapter 8: The Feelings Economy

1. The story of Edward Bernays in this chapter comes from Adam Curtis's wonderful documentary *The Century of Self*, BBC Four, United Kingdom, 2002.

2. This is *actually* what the ego is, in the Freudian sense: our conscious stories about ourselves and our never-ending battle to maintain and protect those stories. Having a strong ego is actually psychologically healthy. It makes you resilient and confident. The term *ego* has since been butchered in self-help literature to essentially mean narcissism.

3. In the 1930s, I guess Bernays started to feel bad because he was actually the one who made Freud a global phenomenon. Freud was broke, living in Switzerland, worried about the Nazis, and Bernays not only got Freud's ideas published in the US, but popularized them by having major magazines write articles about them. The fact that he is a household name today is largely due to Bernays' marketing tactics, which coincidentally, were based on his theories.

4. See chapter 4, note 26.

5. Examples include Johannes Gutenberg, Alan Turing, and Nikola Tesla.

6. A. T. Jebb et. al., “Happiness, Income Satiation and Turning Points Around the World,” *Nature Human Behaviour* 2, no. 1 (2018): 33.

7. M. McMillen, “Richer Countries Have Higher Depression Rates,” WebMD, July 26, 2011, <https://www.webmd.com/depression/news/20110726/richer-countries-have-higher-depression-rates>.

8. Here's a fun theory about war and peace I came up with: The common assumption about war is that it starts because a group of people are in such

a painful situation that they have no option but to fight for their survival. Let's call it the "Nothing to Lose" theory of war. The Nothing to Lose theory of war is often framed in religious terms: the little guy fighting the corrupt powers for his fair share, or the mighty free world uniting to vanquish the tyranny of communism. These narratives make for great action movies. That's because they're easily digestible, value-laden stories that help unite the Feeling Brains of masses. But, of course, reality isn't that simple.

People don't just start revolutions because they are subjugated and oppressed. Every tyrant knows this. People who are kept in perpetual pain come to accept the pain and see it as natural. Like an abused dog, they become placid and detached. It's why North Korea has continued as long as it has. It's why the slaves in the United States rarely rose up in violent revolt.

Allow me to suggest that people start revolutions because of pleasure. When life becomes comfortable, people's tolerance of discomfort and inconvenience lessens to the point where they see even the slightest of slights as unforgivable travesties, and as a result, they lose their shit.

Political revolution is a privilege. When you're starving and destitute, you're focused on surviving. You don't have the energy or will to worry about the government. You're just trying to make it to next week.

And if that sounds bananas, rest assured that I didn't just make that up. Political theorists call these "revolutions of rising expectations." In fact, it was the famed historian Alexis de Tocqueville who pointed out that most of the people who instigated the French Revolution were not the poor masses "storming the Bastille," but rather, people from wealthy counties and neighborhoods. Similarly, the American Revolution was not instigated by downtrodden colonists, but the wealthy landowning elites who believed it a violation of their liberty and dignity to see their taxes go up. (Some things never change.)

World War I, a war that involved thirty-two countries and killed seventeen million people, started because a rich Austrian dude got shot in Serbia. At the time, the world was more globalized and economically prosperous than at any other time in history. World leaders believed a massive global conflict to be impossible. No one would risk such a crazy venture when there was so much to be lost.

But that's exactly why they risked it.

Throughout the twentieth century, revolutionary wars sprung up across the world, from East Asia to the Middle East and Africa to Latin America, not because people were oppressed or starving, but because their economies were growing. And with their introduction to economic growth, people found that their desires outpaced the ability of the institutions to supply those desires.

Here's another way to look at it: when there's way too much pain in

a society (people are starving and dying and getting diseases and stuff), people get desperate, have nothing to lose, say “Fuck it,” and start lobbing Molotov cocktails at old men in suits. But when there’s not enough pain in a society, people start getting more and more upset by tinier and tinier infractions, to the point where they’re willing to become violent over something as stupid as a quasi-offensive Halloween costume.

Just as an individual needs a Goldilocks amount of pain (not too much, but not too little, either) to grow and mature and become an adult with a strong character, societies also need a Goldilocks amount of pain (too much, and you become Somalia; too little, and you become that asshole who loaded up a bunch of trucks with automatic weapons and occupied a national park because . . . freedom).

Let’s not forget the whole reason that deadly conflict exists in the first place: it gives us hope. Having a sworn mortal enemy out there trying to kill you is the quickest way to find purpose and be present in your life. It drives us together into communities like nothing else. It gives our religions a cosmic sense of meaning that cannot be acquired any other way.

It’s prosperity that causes crises in hope. It’s having six hundred channels and nothing to watch. It’s having fifteen matches on Tinder but no one good to date. It’s having two thousand restaurants to choose from but feeling sick of all the same old food. Prosperity makes meaning more difficult. It makes pain more acute. And ultimately, we need meaning way more than we need prosperity, lest we come face-to-face with that wily Uncomfortable Truth again.

Financial markets spend most of their time expanding as more economic value is produced. But eventually, when investments and valuations outrun actual output, when enough money gets caught up in pyramid schemes of diversion rather than innovation, the financial market contracts, washing out all the “weak money,” knocking out the many businesses that were overvalued and not actually adding value to society. Once the washout is complete, economic innovation and growth, now course-corrected, can continue.

In the “Feelings Economy,” a similar expansion-contraction pattern happens. The long-term trend is toward pain reduction through innovation. But in times of prosperity, people indulge more and more in diversions, demand fake freedoms, and become more fragile. Eventually, they begin to become feverishly upset over things that merely a generation or two before would have seemed frivolous. Pickets and protests erupt. People start sewing badges on their sleeves and wearing funny hats and adopting the ideological religion du jour to justify their rage. Hope becomes more difficult to find amid the twinkling array of diversions. And eventually, things escalate to the point where someone does something stupid and extreme, like shoot

an archduke or ram a 747 into a building, and war erupts, killing thousands, if not millions.

And as the war rages, the real pain and deprivation set in. Economies collapse. People go hungry. Anarchy ensues. And the worse the conditions get, the more antifragile people become. Before, with their satellite cable TV package and a dead-end job, they didn't know what to hope for. Now they know exactly what to hope for: peace, solace, respite. And their hope ends up uniting what used to be a fractured, disparate population under the banner of one religion.

Once the war is over, with the immense destruction etched in their recent memory, people learn to hope for simpler things: a stable family, a steady job, a child who is safe—like actually safe. Not this “Don't let them play outside by themselves” safe.

Hope is reset throughout society. And a period of peace and prosperity resumes. (Sort of.)

There's one last component to this harebrained theory that I still haven't spoken about: inequality. During periods of prosperity, more and more economic growth is driven by diversions. And because diversions scale so easily—after all, who doesn't want to see the new *Avengers* movie?—wealth becomes extremely concentrated in fewer hands. This growing wealth disparity then feeds the “revolution of rising expectations.” Everyone feels that their life is supposed to be better, yet it's not what they expected; it's not as pain-free as they had hoped. Therefore, they line up on their ideological sides—master moralists over here, slave moralists over there—and they fight.

And during the fighting and destruction, no one has time for diversions. In fact, diversions can get you killed.

No, in war, everything is about gaining an advantage. And to gain an advantage, you must invest in innovations. Military research has driven most of the greatest innovation in human history. War not only restores balance to people's hope and fragility, but it is, sadly, also the only thing that dependably resets wealth inequality. It's another boom/bust cycle. Although, this time, instead of it being financial markets or a population's fragility, it's political power.

The sad fact is that war is not only an inherent part of human existence; it's likely a necessary by-product of our existence as well. It's not an evolutionary bug; it's a feature. Of the past 3,400 years, humans have been at peace for a total of 268 of them. That's not even 8 percent of recorded history.

War is the natural fallout from our erroneous hopes. It's where our religions get tested for their solidarity and usefulness. It's what promotes innovation and motivates us to work and evolve.

And it is the only thing that is consistently able to get people to get over their own happiness, to develop true virtue of character, to develop an ability to withstand pain, and to fight and live for something other than themselves.

This is likely why the ancient Greeks and Romans believed virtue necessitated war. There was an inherent humility and bravery required not just to succeed in war, but also to be a good person. The strife brings out the best in us. And, in a sense, virtue and death always go hand in hand.

9. The “commercial age” is just something I made up, if I’m being honest. Really, what it refers to, I suppose, is the postindustrial age, the age when commerce began to expand into producing unnecessary goods. I think of it as similar to what Ron Davison calls the “Third Economy.” See R. Davison, *The Fourth Economy: Inventing Western Civilization*, self-published ebook, 2011.

10. This is a well-documented issue. See Carol Cadwalladr, “Google, Democracy, and the Truth About Internet Search,” *Guardian*, December 4, 2016, <https://www.theguardian.com/technology/2016/dec/04/google-democracy-truth-internet-search-facebook>.

11. Not only is this sort of surveillance creepy, but it’s a perfect illustration of a tech company treating its customers as mere means rather than ends. In fact, I would argue that the feeling of creepiness is itself the sensation of being treated as merely a means. Even though we “opt in” to these services that harvest our data, we’re not fully knowledgeable and/or aware of this; therefore, it feels as though we haven’t consented. This feeling of nonconsent is what makes us feel disrespected and treated as a means, and is therefore why we get upset. See K. Tiffany, “The Perennial Debate About Whether Your Phone Is Secretly Listening to You, Explained,” *Vox*, Dec 28, 2018, <https://www.vox.com/the-goods/2018/12/28/18158968/facebook-micro-phone-tapping-recording-instagram-ads>.

12. You know, because torture doesn’t scale well.

13. Barry Schwartz, *The Paradox of Choice: Why More is Less* (New York: HarperCollins Ecco, 2004).

14. There’s a lot of data that shows that this is incredibly effective. It’s another example of working *with* your Feeling Brain (in this case, scaring it into doing the right thing) rather than against it. This is so effective that the researchers who originally studied it created a website called stickk.com that allows people to set up these agreements with their friends. I actually used it to hit a deadline with my last book (and it worked!).

15. He ended up losing to the chess grandmaster because, as it turns out, chess has hundreds of millions of potential moves, and it’s impossible to

map out an entire game from beginning to end. I'm citing no source because this hack job doesn't deserve more attention.

16. Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon and Schuster, 2001).

17. F. Sarracino, "Social Capital and Subjective Well-being Trends: Comparing 11 Western European Countries," *Journal of Socio-Economics* 39 (2010): 482–517.

18. Putnam, *Bowling Alone*, pp. 134–43.

19. *Ibid.*, pp. 189–246.

20. *Ibid.*, pp. 402–14.

21. This is a more ethical and effective way at looking at liberty. Take, for instance, the controversies in Europe over whether Muslim women can wear hijabs. A fake-freedom perspective would say that women should be liberated *not* to wear a hijab—i.e., they should be given more opportunity for pleasure. This is treating the women as a means to some ideological end. It is saying that they don't have the right to choose their own sacrifices and commitments, that they must subsume their beliefs and decisions to some broader ideological religion about freedom. This is a perfect example of how treating people as a means to the end of freedom undermines freedom. Real freedom means you allow the women to choose what they wish to sacrifice in their lives, thus allowing them to wear the hijabs. For a summary of the controversy, see "The Islamic Veil Across Europe," *BBC News*, May 31, 2018, <https://www.bbc.com/news/world-europe-13038095>.

22. Unfortunately, with cyber warfare, fake news, and election meddling possible through global social media platforms, this is truer than ever before. The "soft power" of the internet has allowed savvy governments (Russia, China) to effectively influence the populations of rival countries rather than having to infiltrate the countries physically. It only makes sense that in the information age, the world's greatest struggles would be over information.

23. Alfred N. Whitehead, *Process and Reality: Corrected Edition*, ed. David Ray Griffin and Donald W. Sherburne (New York: The Free Press, 1978), p. 39.

24. Plato, *Phaedrus*, 253d.

25. Plato, *The Republic*, 427e and 435b.

26. Plato's "theory of forms" appears in a number of dialogues, but the most famous example is his cave metaphor, which occurs in *The Republic*, 514a–20a.

27. It's worth noting that the ancient definition of *democracy* differs from the modern one. In ancient times, *democracy* meant that the population

voted on everything and there were few to no representatives. What we refer to today as democracy is technically a “republic,” because we have elected representatives who make decisions and determine policy. That being said, I don’t think this distinction changes the validity of the arguments of this section at all. A decline in maturity in the population will be reflected in worse elected representatives, who were Plato’s “demagogues,” politicians who promise everything and deliver nothing. These demagogues then dismantle the democratic system while the people cheer its dismantling, as they come to see the system itself, rather than the poorly selected leadership, as the problem.

28. Plato, *The Republic*, 564a–66a.

29. *Ibid.*, 566d–69c.

30. Democracies go to war less often than autocracies, affirming Kant’s “perpetual peace” hypothesis. See J. Oneal and B. Russett, “The Kantian Peace: The Pacific Benefits of Democracy, Interdependence, and International Organizations, 1885–1992,” *World Politics* 52, no. 1 (1999): 1–37. Democracies promote economic growth. See Jose Tavares and Romain Wacziarg, “How Democracy Affects Growth,” *European Economic Review* 45, no. 8 (2000): 1341–78. People in democracies live longer. See Timothy Besley and Kudamatsu Masayuki, “Health and Democracy,” *American Economic Review* 96, no. 2 (2006): 313–18.

31. Interestingly, low-trust societies rely more on “family values” than do other cultures. One way to look at it is that the less hope people derive from their national religions, the more they look for hope in their familial religions, and vice versa. See Fukuyama, *Trust*, pp. 61–68.

32. This is an explanation of the paradox of progress that I haven’t really dived into: that with every improvement of life, we have more to lose and less to gain than before. Because hope relies on the perception of future value, the better things become in the present, the more difficult it can be to envision that future and the easier to envision greater losses in the future. In other words, the internet is great, but it also introduces all sorts of new ways for society to collapse and everything to go to hell. So, paradoxically, each technological improvement also introduces novel ways for us to all kill one another, and ourselves.

Chapter 9: The Final Religion

1. In 1950, Alan Turing, the father of computer science, created the first chess algorithm.

2. It turns out that it is unbelievably difficult to program “Feeling Brain” functionality into a computer, while Thinking Brain functionality has long

surpassed human capacity. That's because our Feeling Brains operate using our entire neural networks, whereas our Thinking Brains just do raw computations. I'm probably butchering this explanation, but it's an interesting twist on the development of AI—just as we perpetually struggle to understand our own Feeling Brains, we also struggle to create them in machines.

3. In the years that followed Kasparov's initial defeat, both he and Vladimir Kramnik battled a number of top chess programs to draws. But by 2005, chess programs Fritz, Hydra, and Junior shellacked top grandmasters in matches, sometimes not even dropping a single game. By 2007, human grandmasters were given move advantages, pawn advantages, and choices of openings—and still lost. By 2009, everybody just stopped trying. No point.
4. This is true, although not literally. In 2009, the mobile chess software Pocket Fritz beat Deep Blue in a ten-game match. Fritz won despite having less computing—meaning it's superior software, not that it's more powerful.
5. Michael Klein, "Google's AlphaZero Destroys Stockfish in 100-game Match," Chess.com, December 7, 2017, <https://www.chess.com/news/view/google-s-alphazero-destroys-stockfish-in-100-game-match>.
6. Shogi is considered more complex because you are able to take control of your opponent's pieces, leading to far more variations than even with chess.
7. For a discussion of the potential mass unemployment caused by AI and machine automation, check out the excellent E. Brynjolfsson and A. McAfee, *Race Against the Machines: How the Digital Revolution Is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment* (Lexington, MA: Digital Frontier Press, 2011).
8. K. Beck, "A Bot Wrote a New Harry Potter Chapter and It's Delightfully Hilarious," *Mashable*, December 17, 2017, <https://mashable.com/2017/12/12/harry-potter-predictive-chapter>.
9. J. Miley, "11 Times AI Beat Humans at Games, Art, Law, and Everything in Between," *Interesting Engineering*, March 12, 2018, <https://interestingengineering.com/11-times-ai-beat-humans-at-games-art-law-and-everything-in-between>.
10. Much in the same way that today it's almost impossible to imagine life without Google, email, or cell phones.
11. Evolutionarily speaking, humans gave up a lot to make their big brains possible. Compared to other apes, and especially mammals, we're slow, weak, and fragile and have poor sensory perceptions. But most of what we lack in physical capabilities was given up to allow for the brain's greater use of energy and longer gestation period. So, really, things worked out in the end.

12. See D. Deutsch, *The Beginning of Infinity: Explanations that Transform the World* (New York: Penguin Books, 2011).
13. Well, technically, most of these didn't exist until we came along, but I suppose that's partly the point.
14. Haidt, *The Righteous Mind*, pp. 32–34.
15. The self-hatred is a reference to the inherent guilt that comes with existence, discussed in chapter 4. The self-destruction is, well, self-evident.
16. Such outlandish scenarios are actually quite serious and covered well in Nick Bostrom's *Superintelligence: Paths, Dangers, Strategies* (New York: Oxford University Press, 2014).
17. Michal Kranz, "5 Genocides That Are Still Going on Today," *Business Insider*, November 22, 2017, <https://www.businessinsider.com/genocides-still-going-on-today-bosnia-2017-11>.
18. "Hunger Statistics," Food Aid Foundation, <https://www.foodaidfoundation.org/world-hunger-statistics.html>.
19. Calculated by author based on statistics from National Coalition Against Domestic Violence, <https://ncadv.org/statistics>.





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