PREFACE

In 2006, I unwittingly set off down the path leading to this book when I moved from the Department of Anthropology at Emory University to the University of British Columbia (UBC) in Vancouver, where I became a professor in the Departments of both Psychology and Economics. This was indeed an unlikely port of call, since I'd never taken a course in either field. Soon after arriving at UBC, two seemingly independent developments laid the foundation for this book. First, the Head of the Department of Economics, Anji Redish, suggested that I might teach a course called "The Wealth and Poverty of Nations" to fulfill my teaching obligation in the department. She'd noticed that when I was a graduate student at UCLA, I had taught a seminar based on Jared Diamond's book *Guns, Germs, and Steel*. This teaching opportunity led me deep into the literature in economics on why countries differ in prosperity, and why the Industrial Revolution occurred in Europe but not elsewhere. Topically, this research naturally fit my long-running anthropological interest in the evolution of human societies, although anthropologists usually didn't try to explain things that occurred

after the rise of ancient states. Economists, by contrast (at that time), rarely looked back more than about 500 years from the present. Each time I taught the course, I modified the readings, which provided me with a chance to explore and critique the field. While this was fun, I didn't realize just how important this knowledge would be to my ongoing efforts to understand human psychological variation.

The second important development arose as I got to know two UBC social psychologists, Ara Norenzayan and Steve Heine. Ara, an Armenian who had emigrated from war-torn Lebanon to Fresno, California, when he was 18 years old, had spent the early part of his scientific career studying cultural differences in perception, thinking styles, and reasoning. Steve, whose research was (I suspect) often inspired by interactions with his Japanese wife, had been comparing how Canadians and Japanese think about themselves in relation to others and how that affects their motivations, decision-making, and sense of self. Independently, all three of us had noticed—within our separate domains of expertise—that Western populations were often unusual when compared to two or more other populations. Over Chinese takeout, in a basement food court where the famed psychologists Daniel Kahneman and Amos Tversky had purportedly hatched their plans to examine rational decision-making, we decided to compile all the cross-cultural studies that we could locate on important aspects of human psychology. After carefully reviewing all the research that we could locate, we arrived at three striking conclusions:

1. *Massively biased samples*: Most of what was known experimentally about *human* psychology and behavior was based on studies with undergraduates from Western societies. At the time, 96 percent of experimental participants were drawn from northern Europe, North America, or Australia, and about 70 percent of these were American undergraduates.
2. *Psychological diversity*: Psychological differences between populations appeared in many important domains, indicating much greater variation than one might expect from reading the text-

books or major journals in either psychology or behavioral economics.

3. *Psychological peculiarity*: When cross-cultural data were available from multiple populations, Western samples typically anchored the extreme end of the distribution. They were psychologically weird.

Taken together, these three findings meant that almost everything we—scientists—knew about human psychology derived from populations that seemed to be rather unusual along many important psychological and behavioral dimensions. Crucially, there was no obvious way to tell whether a psychological pattern found in Western undergraduates would hold cross-culturally, since existing research going back over a half century had revealed differences across populations in people's susceptibility to visual illusions, spatial reasoning, memory, attention, patience, risk-taking, fairness, induction, executive function, and pattern recognition.

Four years after our lunch in the basement, Ara, Steve, and I finally published "The weirdest people in the world?" in the journal *Behavioral and Brain Sciences* (2010), along with a commentary in *Nature* magazine. In these publications, we dubbed the populations so commonly used in psychological and behavioral experiments as "W.E.I.R.D." because they came from societies that are Western, Educated, Industrialized, Rich, and Democratic. Of course, we suspected there was likely important psychological variation among Western populations and within Western countries, but even this variation wasn't showing up very often in published studies or textbooks.

Although our publication in *Behavioral and Brain Sciences* did succeed in highlighting the narrowness of sampling within the psychological and behavioral sciences, I've always found it unsatisfying, because it doesn't explain anything. How can we account for all this psychological variation? And why are WEIRD people so unusual? In fact, without guiding theories or explanations, we couldn't even be sure that WEIRD people were indeed unusual. We wondered if WEIRD researchers—who entirely dominate the relevant scientific disciplines—might have unknowingly gravitated toward

those aspects of psychology or behavior on which they themselves—their populations—were likely to stand out. Steve wondered aloud at lunch about what Japanese psychology might look like if Japanese researchers had developed their own version of this discipline, without first importing Western concepts, interests, and emphases.

In the aftermath of our paper, my mental gears began to turn on the question of how to explain the broad patterns of psychological variation that Ara, Steve, and I had discerned. The current effort documents my progress to date. However, in constructing this book, I ended up first producing another book, called *The Secret of Our Success* (2016). Originally, the ideas that I developed there were supposed to form Part I of this book. But, once I opened that intellectual dam, a full book-length treatment flooded out, and nothing could stop it. Then, with *The Secret of Our Success* tempered and ready, I could confidently synthesize the elements necessary for this book. Thanks to my publisher, Farrar, Straus and Giroux, for understanding that sometimes you need to forge the proper tools before tackling a big job.

This project required me to draw on and integrate research from across the social and biological sciences, and for that I had to rely on a vast network of friends, colleagues, and fellow scientists who pitched in with their knowledge, wisdom, and insights over a decade. I could never thank everyone who helped me, in countless conversations and emails.

As a wayward cultural anthropologist who washed up on the academic shores of psychology and economics at the University of British Columbia, I'd like to thank the truly amazing group of scholars and friends there who took me in. The contributions of Steve and Ara were, of course, foundational. I also learned a tremendous amount from Ted Slingerland, Patrick Francois, Siwan Anderson, Mauricio Drelichman, Ashok Kotwal, Kiley Hamlin, Mark Schaller, Mukesh Eswaran, Jessica Tracy, Darrin Lehman, Nancy Gallini, Andy Baron, Sue Birch, and Janet Werker. Special thanks to Siwan and Patrick for providing comments on my draft chapters.

Just as I was officially embarking on the intellectual journey to this book, I was invited to become a fellow in the Canadian Institute for Ad-

vanced Research (CIFAR) in the Institutions, Organizations, and Growth (IOG) group. This serendipitous lightning bolt brought me into continuous contact with leading economists and political scientists who were working on questions of direct relevance. My thanks to CIFAR and the entire IOG, since I learned from everyone. Early on, my conversations with the economic historians Avner Greif and Joel Mokyr contributed to forming the backbone of this book. Special thanks to Joel, who provided chapter-by-chapter feedback and always responded to my naïve questions about economic history. I also learned much from interacting with Guido Tabellini, Matt Jackson, Torsten Persson, Roland Bénabou, Tim Besley, Jim Fearon, Sara Lowes, Suresh Naidu, Thomas Fujiwara, Raul Sanchez de la Sierra, and Natalie Bau. Of course, my ongoing debates with Daron Acemoglu and James Robinson were essential, as they forced me to sharpen my arguments and spot gaps in my evidence. When James and I co-taught a course at Harvard, he made sure the students carefully inspected each of my arguments.

In 2013–14, I was fortunate to spend a year at New York University's Stern School of Business as part of the Business and Society Program. My time at Stern was incredibly productive, and I benefited greatly from weekly conversations and an opportunity to co-teach with the psychologist Jon Haidt. During this time, I also enjoyed helpful advice from the economists Paul Romer and Bob Frank.

After I arrived at Harvard, sections of this book underwent dramatic improvements with input from a group of young economists. In 2016, I first told Benjamin Enke about my book over several pints during our weekly pub gatherings. He got excited about the ideas and, over the next year, put together an impressive paper that I draw heavily on in Chapter 6. At roughly the same time, I'd invited Jonathan Schulz to give a talk in my lab, since I'd heard from one of my postdocs that he was working on something about "cousin marriage and democracy" at Yale. For most people, especially most economists, "cousin marriage and democracy" would probably sound a bit wacky. But to me, it was obvious that he and I had probably ended up on converging scientific tracks. After his talk, I immediately invited him to become a postdoc in my lab and join a collaboration that I'd begun with an-

other economist, Jonathan Beauchamp, who was leaving his post at the International Monetary Fund to return to academic life. To our trio we soon added the Iranian-born economist Duman Bahrami-Rad. The intellectual fruit of our teamwork is now published in *Science* magazine and forms the core of Chapters 6 and 7. Thanks to all these guys for reading drafts of this book and providing helpful comments.

During this same period, I also benefited immensely from weekly interactions with the economists Nathan Nunn and Leander Heldring. In courses that we co-instructed, Leander and Nathan provided feedback on my ideas, lecture by lecture, as I presented them.

Members of my laboratory group have had to endure my obsession with the topics covered in this book. For their comments and insights over the years, thanks to Michael Muthukrishna, Rahul Bhui, Aiyana Willard, Rita McNamara, Cristina Moya, Jennifer Jacquet, Maciek Chudek, Helen Davis, Anke Becker, Tommy Flint, Martin Lang, Ben Purzycki, Max Winkler, Manvir Singh, Moshe Hoffman, Andres Gomez, Kevin Hong, and Graham Noblit. Special thanks to Cammie Curtin and Tiffany Hwang, who, during the time each spent as my lab manager, contributed to this book in myriad ways.

Along the way, I benefited from conversations in interactions with many researchers and authors, including Dan Smail, Rob Boyd, Kim Hill, Sarah Mathew, Sascha Becker, Jared Rubin, Hans-Joachim Voth, Kathleen Vohs, Ernst Fehr, Matt Syed, Mark Koyama, Noel Johnson, Scott Atran, Peter Turchin, Eric Kimbrough, Sasha Vostroknutov, Alberto Alesina, Steve Stich, Tyler Cowen, Fiery Cushman, Josh Greene, Alan Fiske, Ricardo Hausmann, Clark Barrett, Paola Giuliano, Alessandra Cassar, Devesh Rustagi, Thomas Talhelm, Ed Glaeser, Felipe Valencia Caicedo, Dan Hruschka, Robert Barro, Rachel McCleary, Sendhil Mullainathan, Lera Boroditsky, Michal Bauer, Julie Chytilová, Mike Gurven, and Carole Hooven, among many others. Several people supplied me with data, and I've tried to specifically thank them for that in the endnotes. During two visits to the University of Pennsylvania, I was particularly inspired by in-depth discussions with one of my fellow travelers, Coren Apicella, whose work with Hadza hunter-gatherers is featured in Chapter 11.

I would also like to extend my thanks to my editor at FSG, Eric Chinski, for his helpful comments on the penultimate draft of my manuscript, and to my literary agent, Brockman Inc., for their early and consistent encouragement of this project.

Finally, my greatest gratitude goes to my family, Natalie, Zoey, Jessica, and Josh, who have for a decade lovingly supported my efforts on this demanding project.

Joe Henrich
Cambridge, Massachusetts
August 1, 2019

The Weirdest People in the World

Prelude:
Your Brain Has Been Modified

Your brain has been altered, neurologically rewired as it acquired a skill that your society greatly values. Until recently, this skill was of little or no use and most people in most societies never acquired it. In developing this ability, you have:[1]

1. Specialized an area of your brain's left ventral occipito-temporal region, which lies between your language, object, and face processing centers.
2. Thickened your corpus callosum, which is the information highway that connects the left and right hemispheres of your brain.
3. Altered the part of your prefrontal cortex that is involved in language production (Broca's area) as well as other brain areas engaged in a variety of neurological tasks, including both speech processing and thinking about others' minds.
4. Improved your verbal memory and broadened your brain's activation when processing speech.

5. Shifted your facial recognition processing to the right hemisphere. Normal humans (not you) process faces almost equally on the left and right sides of their brains, but those with your peculiar skill are biased toward the right hemisphere.[2]
6. Diminished your ability to identify faces, probably because while jury-rigging your left ventral occipito-temporal region, you impinged on an area that usually specializes in facial recognition.
7. Reduced your default tendency toward holistic visual processing in favor of more analytical processing. You now rely more on breaking scenes and objects down into their component parts and less on broad configurations and gestalt patterns.

What is this mental ability? What capacity could have renovated your brain, endowing you with new, specialized skills as well as inducing specific cognitive deficits?

The exotic mental ability is reading. You are likely highly literate.

Acquiring this mental ability involves wiring in specialized neurological circuitry in various parts of the brain. For processing letters and words, a *Letterbox* develops in the left ventral occipito-temporal region, which connects with nearby regions for object recognition, language, and speech. Brain injuries that damage the *Letterbox* cause illiteracy, though victims retain the ability to recognize numerals and make mathematical calculations, indicating that this region develops specifically for reading.[3]

The *Letterbox*'s circuitry is tuned to specific writing systems. For example, while Hebrew characters activate the *Letterbox* in Hebrew readers, English readers deal with these characters as they would any other visual object—and not like they do Roman letters. The *Letterbox* also encodes deeper, nonvisual patterns. For example, it registers the similarity between "READ" and "read" even though the two words look quite different.[4]

Let me show you something: there will be some large symbols at the top of the next page. Don't read them, but instead only study their shapes. I'll tell you when you should read them.

White Horse
白　馬

If you are literate in English, I bet you couldn't help but read "White Horse" above. Your brain's reading circuitry is superfast, automatic, and, as we just demonstrated, out of your conscious control. You can't help reading what you see. By contrast, unless you are also literate in Chinese, you probably had no trouble simply admiring the interesting markings that form the Chinese characters above, which also mean "White Horse" (*bai ma*). In highly literate populations, psychologists like to flash words at experimental participants so quickly that they don't consciously realize that they have just seen a word. Yet we know that they not only saw the flashed word but also read it, because its meaning subtly influences their brain activation and behavior. Such subliminal priming demonstrates both our inability to switch off our reading circuitry and the fact that we don't even know it when we are in fact reading and processing what we read. Although this cognitive ability is culturally constructed, it's also automatic, unconscious, and irrepressible. This makes it like many other aspects of culture.[5]

Learning to read forms specialized brain networks that influence our psychology across several different domains, including memory, visual processing, and facial recognition. Literacy changes people's biology and psychology without altering the underlying genetic code. A society in which 95 percent of adults are highly literate would have, on average, thicker corpus callosa and worse facial recognition than a society in which only 5 percent of people are highly literate. These biological differences between populations will emerge even if the two groups were genetically indistinguishable. Literacy thus provides an example of how culture can change people biologically independent of any genetic differences. Culture can and does alter our brains, hormones, and anatomy, along with our perceptions, motivations, personalities, emotions, and many other aspects of our minds.[6]

The neurological and psychological modifications associated with literacy should be thought of as part of a cultural package that includes prac-

tices, beliefs, values, and institutions—like the value of "formal education" or institutions such as "schools"—as well as technologies like alphabets, syllabaries, and printing presses. Across societies, a combination of practices, norms, and technologies has jury-rigged aspects of our genetically evolved neurological systems to create new mental abilities. To understand the psychological and neurological diversity we find around the world, in domains ranging from verbal memory to corpus callosum thickness, we need to explore the origins and development of the relevant values, beliefs, institutions, and practices.

The case of literacy illustrates why so many psychologists and neuroscientists have broadly misread their experimental results and repeatedly made incorrect inferences about *human* brains and psychology. By studying the students attending their home universities, neuroscientists found a robust right-hemisphere bias in facial processing. Following good scientific practice, different researchers replicated these results using different populations of Western university students. Based on these successful replications, it was inferred that this hemispheric bias in facial processing was a basic feature of human neurocognitive functioning—not a cultural by-product of deep literacy. Had they done what psychologists usually do to look for cultural differences—run experiments on East Asian students attending American universities—they would have further verified their prior results and confirmed a right-hemisphere bias. This is because all university students must be highly literate. Of course, there's no shortage of illiterate people in the world today, with estimates placing the number somewhere north of 770 million, which is more than twice the population of the United States. They just don't make it into university labs very often.

Here's the thing: highly literate societies are relatively new, and quite distinct from most societies that have ever existed. This means that modern populations are neurologically and psychologically different from those found in societies throughout history and back into our evolutionary past. If you unwittingly study these peculiar modern populations without realizing the powerful impact that technologies, beliefs, and social norms related

to literacy have on our brains and mental processes, you can get the wrong answers. This can happen even when you study seemingly basic features of psychology and neuroscience, like memory, visual processing, and facial recognition.

If we want to explain these aspects of brains and psychology as they appear in modern societies, we need to understand the origins and spread of high rates of literacy—when and why did most people start reading? Where and why did the beliefs, values, practices, technologies, and institutions emerge to create and support this new ability? This turns a question about neuroscience, and global psychological diversity, into one about cultural evolution and history.

What God Wants

Literacy does not come to pervade a society simply because a writing system emerges, though having such a system certainly helps. Writing systems have existed for millennia in powerful and successful societies, dating back some 5,000 years; yet until relatively recently, never more than about 10 percent of any society's populations could read, and usually the rates were much lower.

Suddenly, in the 16th century, literacy began spreading epidemically across western Europe. By around 1750, having surged past more cosmopolitan places in Italy and France, the Netherlands, Britain, Sweden, and Germany developed the most literate societies in the world. Half or more of the populations in these countries could read, and publishers were rapidly cranking out books and pamphlets. In examining the spread of literacy between 1550 and 1900 in Figure P.1, remember that underneath this diffusion are psychological and neurological changes in people's brains: verbal memories are expanding, face processing is shifting right, and corpus callosa are thickening—in the aggregate—over centuries.[7]

It's not immediately obvious why this takeoff should have occurred at this point in history and in these places. The explosion of innovation and economic growth known as the Industrial Revolution wouldn't hit

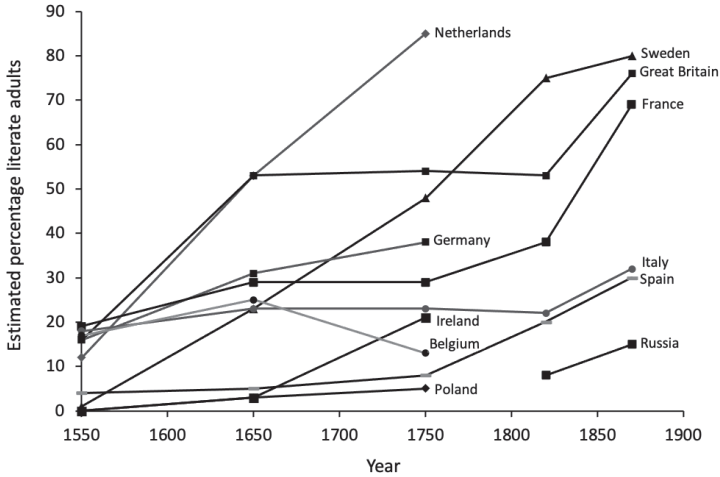

FIGURE P.1. **Literacy rates for various European countries from 1550 to 1900. These estimates are based on book publishing data calibrated using more direct measures of literacy.**[8]

England, and later the rest of Europe, until the late 18th century (at the earliest), so the initial spread of literacy isn't a response to the incentives and opportunities created by industrialization. Similarly, it wasn't until the late 17th century, with the Glorious Revolution in Britain, that constitutional forms of government began to emerge at the national level, so literacy isn't purely a consequence of political representation or pluralism in state politics. In fact, in many places in Europe and America, high levels of literacy emerged and persisted long before the advent of mandatory state-funded schools. Of course, this doesn't mean that literacy wasn't eventually spurred along by wealth, democracy, and state funding. These developments, however, are too late to have sparked popular literacy. So, what did?

It began late in 1517, just after Halloween, in the small German charter town of Wittenberg. A monk and professor named Martin Luther had produced his famous Ninety-Five Theses, which called for a scholarly debate on the Catholic Church's practice of selling indulgences. Catholics at the time could purchase a certificate, an "indulgence," to reduce the time

that their dead relatives had to spend in purgatory for their sins, or to lessen the severity of their own Penance.[9] Luther's Ninety-Five Theses marked the eruption of the Protestant Reformation. Elevated by his excommunication and bravery in the face of criminal charges, Luther's subsequent writings on theology, social policy, and living a Christian life reverberated outward from his safe haven in Wittenberg in an expanding wave that influenced many populations, first in Europe and then around the world. Beyond the German lands, Protestantism would soon develop strong roots in the Netherlands and Britain, and later spread with the flows of British colonists into North America, New Zealand, and Australia. Today, variants of Protestantism continue to proliferate in South America, China, Oceania, and Africa.[10]

Embedded deep in Protestantism is the notion that individuals should develop a personal relationship with God and Jesus. To accomplish this, both men and women needed to read and interpret the sacred scriptures—the Bible—for themselves, and not rely primarily on the authority of supposed experts, priests, or institutional authorities like the Church. This principle, known as *sola scriptura*, meant that everyone needed to learn to read. And since everyone cannot become a fluent Latin scholar, the Bible had to be translated into the local languages.[11]

Luther not only created a German translation of the Bible, which rapidly came into broad use, but he began to preach about the importance of literacy and schooling. The task ahead for him was big, since estimates suggest that only about 1 percent of the German-speaking population was then literate. Beginning in his own principality, Saxony, Luther pushed rulers to take responsibility for literacy and schooling. In 1524, he penned a pamphlet called "To the Councilmen of All Cities in Germany That They Establish and Maintain Christian Schools." In this and other writings, he urged both parents and leaders to create schools to teach children to read the scriptures. As various dukes and princes in the Holy Roman Empire began to adopt Protestantism, they often used Saxony as their model. Consequently, literacy and schools often diffused in concert with Protestantism. Literacy also began spreading in other places, like Britain and the Netherlands, though it

was in Germany that formal schooling first became a sacred responsibility of secular rulers and governments.[12]

The historical connection between Protestantism and literacy is well documented. Illustrating this, Figure P.1 shows that literacy rates grew the fastest in countries where Protestantism was most deeply established. Even as late as 1900, the higher the percentage of Protestants in a country, the higher the rate of literacy. In Britain, Sweden, and the Netherlands, adult literacy rates were nearly 100 percent. Meanwhile, in Catholic countries like Spain and Italy, the rates had only risen to about 50 percent. Overall, if we know the percentage of Protestants in a country, we can account for about half of the cross-national variation in literacy at the dawn of the 20th century.[13]

The problem with these correlations and many similar analyses that link Protestantism to either literacy or formal schooling is that we can't tell if Protestantism caused greater literacy and education or whether literacy and education caused people to adopt Protestantism. Or maybe both Protestantism and literacy tended to emerge in the wake of economic growth, representative governments, and technological developments like the printing press. Fortunately, history has provided a kind of natural experiment in Prussia, which has been explored by the economists Sascha Becker and Ludger Woessmann.

Prussia provides an excellent case study for a couple of reasons. First, it developed incipient notions of religious freedom early on. By 1740, Prussia's King Frederick (the Great) declared that every individual should find salvation in his own way—effectively declaring religious freedom. This meant that Prussians could pick their religion unconstrained by the top-down dictates of political leaders. Second, Prussia had relatively uniform laws and similar governing institutions across regions. This mitigates concerns that any relationship observed between literacy and Protestantism might be due to some unseen linkage between religion and government.

Analyses of the 1871 Prussian census show that counties with more Protestants had higher rates of literacy and more schools, with shorter travel times to local schools. This pattern prevails, and the evidence is often stron-

ger, when the effects of urbanization and demographics are held constant. The connection between Protestantism and schools is even evident in 1816, prior to German industrialization. Thus, the relationship between religion and schooling/literacy isn't due to industrialization and the associated economic growth.[14]

Still, the relationship between Protestantism and literacy/schooling is just an association.[15] Many of us learned that causal links can never be inferred from mere correlations, and that only experiments can identify causation. This isn't entirely true anymore, however, because researchers have devised clever ways to extract quasi-experimental data from the real world. In Prussia, Protestantism spread from Wittenberg like the ripples created by tossing a stone in a pond (to use Luther's own metaphor). Because of this, the further a Prussian county was from Wittenberg in 1871, the smaller the percentage of Protestants. For every 100 km (62 mi) traveled from Wittenberg, the percentage of Protestants dropped by 10 percent (Figure P.2). The relationship holds even when we statistically remove the influence of all kinds of economic, demographic, and geographic factors. Thus we can take proximity to ground zero of the Reformation—Wittenberg—as a cause of Protestantism in Prussia. Obviously, lots of other factors matter, including urbanization, but being near Wittenberg—the new center of action after 1517—had its own independent effect on Protestantism within the Prussian context.

The radial patterning of Protestantism allows us to use a county's proximity to Wittenberg to isolate—in a statistical sense—that part of the variation in Protestantism that we know is due to a county's proximity to Wittenberg and not to greater literacy or other factors. In a sense, we can think of this as an experiment in which different counties were experimentally assigned different dosages of Protestantism to test for its effects. Distance from Wittenberg allows us to figure out how big that experimental dosage was. Then, we can see if this "assigned" dosage of Protestantism is still associated with greater literacy and more schools. If it is, we can infer from this natural experiment that Protestantism did indeed *cause* greater literacy.[16]

The results of this statistical razzle-dazzle are striking. Not only do Prussian counties closer to Wittenberg have higher shares of Protestants,

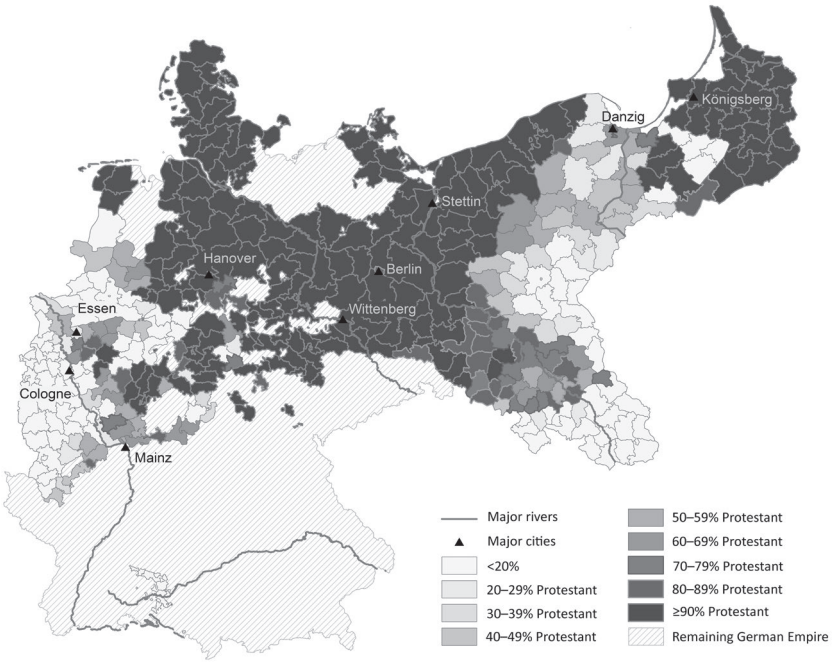

FIGURE P.2. The percentage of Protestants in Prussian counties in 1871.[17] The map highlights some German cities, including the epicenter of the Reformation, Wittenberg, and Mainz, the charter town where Johannes Gutenberg produced his eponymous printing press.

but those additional Protestants are associated with greater literacy and more schools. This indicates that the wave of Protestantism created by the Reformation raised literacy and schooling rates in its wake. Despite Prussia's having a high average literacy rate in 1871, counties made up entirely of Protestants had literacy rates nearly 20 percentile points higher than those that were all Catholic.[18]

These same patterns can be spotted elsewhere in 19th-century Europe—and today—in missionized regions around the globe. In 19th-century Switzerland, other aftershocks of the Reformation have been detected in a battery of cognitive tests given to Swiss army recruits. Young men from

all-Protestant districts were not only 11 percentile points more likely to be "high performers" on reading tests compared to those from all-Catholic districts, but this advantage bled over into their scores in math, history, and writing. These relationships hold even when a district's population density, fertility, and economic complexity are kept constant. As in Prussia, the closer a community was to one of the two epicenters of the Swiss Reformation—Zurich or Geneva—the more Protestants it had in the 19th century. Notably, proximity to other Swiss cities, such as Bern and Basel, doesn't reveal this relationship. As is the case in Prussia, this setup allows us to finger Protestantism as driving the spread of greater literacy as well as the smaller improvements in writing and math abilities.[19]

While religious convictions appear central to the early spread of literacy and schooling, material self-interest and economic opportunities do not. Luther and other Reformation leaders were not especially interested in literacy and schooling for their own sake, or for the eventual economic and political benefits these would foster centuries later. *Sola scriptura* was primarily justified because it paved the road to eternal salvation. What could be more important? Similarly, the farming families who dominated the population were not investing in this skill to improve their economic prospects or job opportunities. Instead, Protestants believed that people had to become literate so that they could read the Bible for themselves, improve their moral character, and build a stronger relationship with God. Centuries later, as the Industrial Revolution rumbled into Germany and surrounding regions, the reservoir of literate farmers and local schools created by Protestantism furnished an educated and ready workforce that propelled rapid economic development and helped fuel the second Industrial Revolution.[20]

The Protestant commitment to broad literacy and education can still be observed today in the differential impacts of Protestant vs. Catholic missions around the globe. In Africa, regions that contained more Christian missions in 1900 had higher literacy rates a century later. However, early Protestant missions beat out their Catholic competitors. Comparing them head-to-head, regions with early Protestant missions are associated with literacy rates that are about 16 percentile points higher on average than

those associated with Catholic missions. Similarly, individuals in communities associated with historical Protestant missions have about 1.6 years more formal schooling than those around Catholic missions. These differences are big, since Africans in the late 20th century had only about three years of schooling on average, and only about half of adults were literate. These effects are independent of a wide range of geographic, economic, and political factors, as well as the countries' current spending on education, which itself explains little of the variation in schooling or literacy.[21]

Competition among religious missions makes a big difference. Both Catholic and Protestant missionaries were more effective at instilling literacy when they were directly competing for the same souls. In fact, in the absence of competition from the literacy-obsessed Protestants, it's not entirely clear that Catholic missionaries had much effect on literacy at all. Furthermore, detailed analyses of the African data reveal that Protestant missions not only built formal schools but also inculcated cultural values about the importance of education. This is consistent with 16th- and 17th-century Europe, where the Catholic interest in literacy and schooling was fueled in part by the Protestants' intense focus on it.[22]

Besides shaping the Catholic Church through competition, Luther's Protestantism also inadvertently laid the foundation for universal, state-funded schooling by promoting the idea that it was the government's responsibility to educate the populace. From the beginning, Luther's writings not only emphasized the need for parents to ensure their children's literacy but also placed the obligation for creating schools on local princes and dukes. This religiously inspired drive for public schools helped make Prussia a model for state-funded education that was later copied by countries like Britain and the United States.

Notably, *sola scriptura* specifically drove the spread of female literacy, first in Europe and later across the globe. In 16th-century Brandenburg, for example, while the number of boys' schools almost doubled, from 55 to 100, the number of girls' schools increased over 10 times, from 4 to 45. Later, in 1816, the higher the percentage of Protestants in a county or town, the larger the percentage of girls who were enrolled in schools

relative to boys. In fact, when a county's distance to Wittenberg is used to extract only that quasi-experimental fraction of the variation in religious affiliation (Catholic or Protestant) that was caused by the early ripples of the Reformation, the relationship still holds—indicating that Protestantism likely caused a rise in female literacy. Outside of Europe, the impact of Protestantism on educating girls continues to play out as Christianity spreads globally. In both Africa and India, for example, early Protestant missions had notably larger effects on the literacy and schooling of girls compared to their Catholic competitors. The impact of Protestantism on women's literacy is particularly important, because the babies of literate mothers tend to be fewer, healthier, smarter, and richer as adults than those of illiterate mothers.[23]

When the Reformation reached Scotland in 1560, it was founded on the central principle of a free public education for the poor. The world's first local school tax was established there in 1633 and strengthened in 1646. This early experiment in universal education soon produced a stunning array of intellectual luminaries, from David Hume to Adam Smith, and probably midwifed the Scottish Enlightenment. The intellectual dominance of this tiny region in the 18th century inspired Voltaire to write, "We look to Scotland for all our ideas of civilization."[24]

Let's follow the causal chain I've been linking together: the spread of a religious belief that every individual should read the Bible for themselves led to the diffusion of widespread literacy among both men and women, first in Europe and later across the globe. Broad-based literacy changed people's brains and altered their cognitive abilities in domains related to memory, visual processing, facial recognition, numerical exactness, and problem-solving. It probably also indirectly altered family sizes, child health, and cognitive development, as mothers became increasingly literate and formally educated. These psychological and social changes may have fostered speedier innovation, new institutions, and—in the long run—greater economic prosperity.[25]

Of course, just as the great German sociologist Max Weber theorized, there's much more to the story of Protestantism than literacy. As we'll see

in Chapter 12, Protestantism also likely influenced people's self-discipline, patience, sociality, and suicidal inclinations.[26]

The Histories of Religions, Biologies, and Psychologies

This book is not primarily about Protestantism or literacy, though I will endeavor to explain why European populations at the close of the Middle Ages were so susceptible to the unusually individualistic character of Protestant beliefs. The very notion that every individual should read and interpret ancient sacred texts for himself or—worse—herself, instead of simply deferring to the great sages, would have seemed somewhere between outrageous and dangerous in most premodern societies.[27] Protestantism, which was actively opposed by many religious and secular elites, would have gone nowhere in most places and during most epochs. To explain the unusual nature of Western Christianity, as well as our families, marriages, laws, and governments, we'll be going much deeper into the past to explore how a peculiar set of religious prohibitions and prescriptions reorganized European kinship in ways that altered people's social lives and psychology, ultimately propelling the societies of Christendom down a historical pathway not available elsewhere. You'll see that Protestantism and its important influences are much closer to the end of the story than to the beginning.

Nevertheless, the case of literacy and Protestantism illustrates, in microcosm, four key ideas that will run through the rest of this book. Let's go through them:

1. Religious convictions can powerfully shape decision-making, psychology, and society. Reading the sacred scripture was primarily about connecting with the divine, but the unintended side effects were big, and resulted in the survival and spread of some religious groups over others.
2. Beliefs, practices, technologies, and social norms—culture—can shape our brains, biology, and psychology, including our motivations, mental abilities, and decision-making biases. You can't

separate "culture" from "psychology" or "psychology" from "biology," because culture physically rewires our brains and thereby shapes how we think.[28]

3. Psychological changes induced by culture can shape all manner of subsequent events by influencing what people pay attention to, how they make decisions, which institutions they prefer, and how much they innovate. In this case, by driving up literacy, culture induced more analytic thinking and longer memories while spurring formal schooling, book production, and knowledge dissemination. Thus, *sola scriptura* likely energized innovation and laid the groundwork for standardizing laws, broadening the voting franchise, and establishing constitutional governments.[29]
4. Literacy provides our first example of how Westerners became psychologically unusual. Of course, with the diffusion of Christianity and European institutions (like primary schools) around the world, many populations have recently become highly literate.[30] However, if you'd surveyed the world in 1900, people from western Europe would have looked rather peculiar, with their thicker corpus callosa and poorer facial recognition.[31]

As you'll see, literacy is no special case. Rather, it's the tip of a large psychological and neurological iceberg that many researchers have missed. In the next chapter, I'll begin by probing the depths and shape of this iceberg. Then, after laying a foundation for thinking about human nature, cultural change, and societal evolution, we'll examine how and why a broad array of psychological differences emerged in western Europe, and what their implications are for understanding modern economic prosperity, innovation, law, democracy, and science.

PART I

The Evolution of Societies and Psychologies

1

WEIRD Psychology

> The Western conception of the person as a bounded, unique, more or less integrated motivational and cognitive universe; a dynamic center of awareness, emotion, judgment, and action organized into a distinctive whole and set contrastively both against other such wholes and against a social and natural background is, however incorrigible it may seem to us, a rather peculiar idea within the context of the world's cultures.
>
> —anthropologist Clifford Geertz (1974, p. 31)

Who are you?

Perhaps you are WEIRD, raised in a society that is Western, Educated, Industrialized, Rich, and Democratic. If so, you're likely rather psychologically peculiar. Unlike much of the world today, and most people who have ever lived, we WEIRD people are highly individualistic, self-obsessed, control-oriented, nonconformist, and analytical. We focus on ourselves—our attributes, accomplishments, and aspirations—over our relationships and social roles. We aim to be "ourselves" across contexts and see inconsistencies in others as hypocrisy rather than flexibility. Like everyone else, we are inclined to go along with our peers and authority figures; but, we are less willing to conform to others when this conflicts with our own beliefs, observations, and preferences. We see ourselves as unique beings, not as nodes in a social network that stretches out through space and back in time. When acting, we prefer a sense of control and the feeling of making our own choices.

When reasoning, WEIRD people tend to look for universal categories and rules with which to organize the world, and mentally project straight

lines to understand patterns and anticipate trends. We simplify complex phenomena by breaking them down into discrete constituents and assigning properties or abstract categories to these components—whether by imagining types of particles, pathogens, or personalities. We often miss the relationships between the parts or the similarities between phenomena that don't fit nicely into our categories. That is, we know a lot about individual trees but often miss the forest.

WEIRD people are also particularly patient and often hardworking. Through potent self-regulation, we can defer gratification—in financial rewards, pleasure, and security—well into the future in exchange for discomfort and uncertainty in the present. In fact, WEIRD people sometimes take pleasure in hard work and find the experience purifying.

Paradoxically, and despite our strong individualism and self-obsession, WEIRD people tend to stick to impartial rules or principles and can be quite trusting, honest, fair, and cooperative toward strangers or anonymous others. In fact, relative to most populations, we WEIRD people show relatively less favoritism toward our friends, families, co-ethnics, and local communities than other populations do. We think nepotism is wrong, and fetishize abstract principles over context, practicality, relationships, and expediency.

Emotionally, WEIRD people are often racked by guilt as they fail to live up to their culturally inspired, but largely self-imposed, standards and aspirations. In most non-WEIRD societies, shame—not guilt—dominates people's lives. People experience shame when they, their relatives, or even their friends fail to live up to the standards imposed on them by their communities. Non-WEIRD populations might, for example, "lose face" in front of the judging eyes of others when their daughter elopes with someone outside their social network. Meanwhile, WEIRD people might feel guilty for taking a nap instead of hitting the gym even though this isn't an obligation and no one will know. Guilt depends on one's own standards and self-evaluation, while shame depends on societal standards and public judgment.

These are just a few examples, the tip of that psychological iceberg I mentioned, which includes aspects of perception, memory, attention, reasoning, motivation, decision-making, and moral judgment. But, the questions I hope to answer in this book are: How did WEIRD populations become so psychologically peculiar? Why are they different?

Tracking this puzzle back into Late Antiquity, we'll see that one sect of Christianity drove the spread of a particular package of social norms and beliefs that dramatically altered marriage, families, inheritance, and ownership in parts of Europe over centuries. This grassroots transformation of family life initiated a set of psychological changes that spurred new forms of urbanization and fueled impersonal commerce while driving the proliferation of voluntary organizations, from merchant guilds and charter towns to universities and transregional monastic orders, that were governed by new and increasingly individualistic norms and laws. You'll see how, in the process of explaining WEIRD psychology, we'll also illuminate the exotic nature of WEIRD religion, marriage, and family. If you didn't know that our religions, marriages, and families were so strange, buckle up.

Understanding how and why some European populations became psychologically peculiar by the Late Middle Ages illuminates another great puzzle: the "rise of the West." Why did western European societies conquer so much of the world after about 1500? Why did economic growth, powered by new technologies and the Industrial Revolution, erupt from this same region in the late 18th century, creating the waves of globalization that are still crashing over the world today?

If a team of alien anthropologists had surveyed humanity from orbit in 1000 CE, or even 1200 CE, they would never have guessed that European populations would dominate the globe during the second half of the millennium. Instead, they probably would have bet on China or the Islamic world.[1]

What these aliens would have missed from their orbital perch was the quiet fermentation of a new psychology during the Middle Ages in some European communities. This evolving proto-WEIRD psychology gradually

laid the groundwork for the rise of impersonal markets, urbanization, constitutional governments, democratic politics, individualistic religions, scientific societies, and relentless innovation. In short, these psychological shifts fertilized the soil for the seeds of the modern world. Thus, to understand the roots of contemporary societies we need to explore how our psychology culturally adapts and coevolves with our most basic social institution—the family.

Let's begin by taking a closer look at the iceberg.

Really, Who Are You?

Try completing this sentence in 10 different ways:

I am _____.

. . .

If you are WEIRD, you probably answered with words like "curious" or "passionate" and phrases like "a scientist," "a surgeon," or "a kayaker." You were probably less inclined to respond with things like "Josh's dad" or "Maya's mom," even though those are equally true and potentially more central to your life. This focus on personal attributes, achievements, and membership in abstract or idealized social groups over personal relationships, inherited social roles, and face-to-face communities is a robust feature of WEIRD psychology, but one that makes us rather peculiar from a global perspective.

Figure 1.1 shows how people in Africa and the South Pacific respond to the "Who am I?" (Figure 1.1A) and the "I am_____" tasks (Figure 1.1B), respectively. The data available for Figure 1.1A permitted me to calculate both the percentage of responses that were specifically individualistic, referring to personal attributes, aspirations, and achievements, and those that were about social roles and relationships. At one end of the spectrum, American undergraduates focus almost exclusively on their individual attributes, aspirations, and achievements. At the other end are the Maasai and Samburu. In rural Kenya, these two tribal groups organize themselves in patrilin-

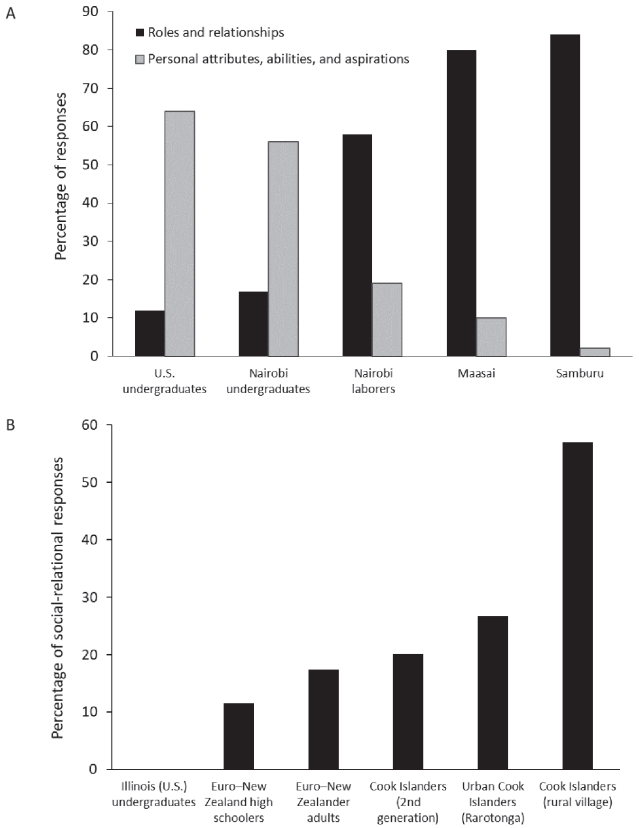

FIGURE 1.1. Personal identity across diverse populations. (A) Using the "Who am I?" task, the upper figure shows the tendencies for people in different populations to focus on their roles and relationships vs. their personal attributes and achievements. The bars show the average percentages of responses for each person in each place. (B) Using the "I am _____" sentence completion task, the lower panel illustrates the average percentage of people's answers that were social-relational in nature.[2]

eal clans and maintain a traditional cattle-herding lifestyle. Their responses referenced their roles and relationships at least 80 percent of the time while only occasionally highlighting their personal attributes or achievements (10 percent or less of the time). In the middle of this distribution are two

populations from Nairobi, the bustling capital of Kenya. Nairobi laborers, including participants from several different tribal groups, responded mostly by referencing their roles and relationships, though they did this less than the Maasai or Samburu. Meanwhile, the fully urbanized undergraduates at the University of Nairobi (a European-style institution) look much more like their American counterparts, with most of their responses referencing their personal attributes or individual achievements.[3]

On the other side of the globe, Figure 1.1B tells a similar story. The close political and social ties between New Zealand and the Cook Islands allow us to compare populations of Cook Islanders who have experienced differing degrees of contact with WEIRD New Zealanders. Unlike in Kenya, the data here only permitted me to separate out the social roles and relationship responses from everything else. Starting in a rural village on one of the outer islands, where people still live in traditional hereditary lineages, the average percentage of social-relational responses was nearly 60 percent. Moving to Rarotonga, the national capital and a popular tourist destination, the frequency of social-relational responses drops to 27 percent. In New Zealand, among the children of immigrants, the frequency of such responses falls further, to 20 percent. This stands close to the average for European-descent New Zealanders, who come in at 17 percent. New Zealand high school students are lower yet, at 12 percent. By comparison, American undergraduates are typically at or below this percentage, with some studies showing zero social-relational responses.

Complementing this work, many similar psychological studies allow us to compare Americans, Canadians, Brits, Australians, and Swedes to various Asian populations, including Japanese, Malaysians, Chinese, and Koreans. The upshot is that WEIRD people usually lie at the extreme end of the distribution, focusing intensely on their personal attributes, achievements, aspirations, and personalities over their roles, responsibilities, and relationships. American undergraduates, in particular, seem unusually self-absorbed, even among other WEIRD populations.[4]

Focusing on one's attributes and achievements over one's roles and relationships is a key element in a psychological package that I'll clump to-

gether as the *individualism complex* or just *individualism*. Individualism is best thought of as a psychological cluster that allows people to better navigate WEIRD social worlds by calibrating their perceptions, attention, judgments, and emotions. I expect most populations to reveal psychological packages that similarly "fit" with their societies' institutions, technologies, environments, and languages, though as you'll see the WEIRD package is particularly peculiar.

MAPPING THE INDIVIDUALISM COMPLEX

To understand individualism, let's start at the other end of the spectrum.[5] Throughout most of human history, people grew up enmeshed in dense family networks that knitted together distant cousins and in-laws. In these regulated-relational worlds, people's survival, identity, security, marriages, and success depended on the health and prosperity of kin-based networks, which often formed discrete institutions known as clans, lineages, houses, or tribes. This is the world of the Maasai, Samburu, and Cook Islanders. Within these enduring networks, everyone is endowed with an extensive array of inherited obligations, responsibilities, and privileges in relation to others in a dense social web. For example, a man could be *obligated* to avenge the murder of one type of second cousin (through his paternal great-grandfather), *privileged* to marry his mother's brother's daughters but tabooed from marrying strangers, and *responsible* for performing expensive rituals to honor his ancestors, who will shower bad luck on his entire lineage if he's negligent. Behavior is highly constrained by context and the types of relationships involved. The social norms that govern these relationships, which collectively form what I'll call *kin-based institutions*, constrain people from shopping widely for new friends, business partners, or spouses. Instead, they channel people's investments into a distinct and largely inherited in-group. Many kin-based institutions not only influence inheritance and the residence of newly married couples, they also create communal ownership of property (e.g., land is owned by the clan) and shared liability for criminal acts among members (e.g., fathers can be imprisoned for their sons' crimes).

This social interdependence breeds emotional interdependence, leading people to strongly identify with their in-groups and to make sharp in-group vs. out-group distinctions based on social interconnections. In fact, in this world, though you may not know some of your distant cousins or fellow tribal members who are three or four relationship links removed, they will remain in-group members as long as they are connected to you through family ties. By contrast, otherwise familiar faces may remain, effectively, strangers if you cannot link to them through your dense, durable social ties.[6]

Success and respect in this world hinge on adroitly navigating these kin-based institutions. This often means (1) conforming to fellow in-group members, (2) deferring to authorities like elders or sages, (3) policing the behavior of those close to you (but not strangers), (4) sharply distinguishing your in-group from everyone else, and (5) promoting your network's collective success whenever possible. Further, because of the numerous obligations, responsibilities, and constraints imposed by custom, people's motivations tend not to be "approach-oriented," aimed at starting new relationships or meeting strangers. Instead, people become "avoidance-oriented" to minimize their chances of appearing deviant, fomenting disharmony, or bringing shame on themselves or others.[7]

That's one extreme; now, contrast that with the other—individualistic—end of the spectrum. Imagine the psychology needed to navigate a world with few inherited ties in which success and respect depend on (1) honing one's own special attributes; (2) attracting friends, mates, and business partners with these attributes; and then (3) sustaining relationships with them that will endure for as long as the relationship remains mutually beneficial. In this world, everyone is shopping for better relationships, which may or may not endure. People have few permanent ties and many ephemeral friends, colleagues, and acquaintances. In adapting psychologically to this world, people come to see themselves and others as independent agents defined by a unique or special set of talents (e.g., writer), interests (e.g., quilting), aspirations (e.g., making law partner), virtues (e.g., fairness), and principles (e.g., "no one is above the law"). These can be enhanced or accentuated

if a person joins a like-minded group. One's reputation with others, and with themselves (self-esteem), is shaped primarily by their own individual attributes and accomplishments, not by nourishing an enduring web of inherited ties that are governed by a complex set of relationship-specific social norms.[8]

For our first peek at global psychological variation, let's squash the individualism complex down into a single dimension. Figure 1.2 maps a well-known omnibus measure of individualism developed by the Dutch psychologist Geert Hofstede based initially on surveys with IBM employees from around the world. The scale asks about people's orientation toward themselves, their families, personal achievements, and individual goals. For example, one question asks, "How important is it to you to fully use your skills and abilities on the job?" and another, "How important is it to you to have challenging work to do—work from which you can get a personal sense of accomplishment?" More individualistically oriented people want to fully harness their skills and then draw a sense of accomplishment from their work. This scale's strength is not that it zeroes in on one thin slice of psychology but rather that it aggregates several elements in the individu-

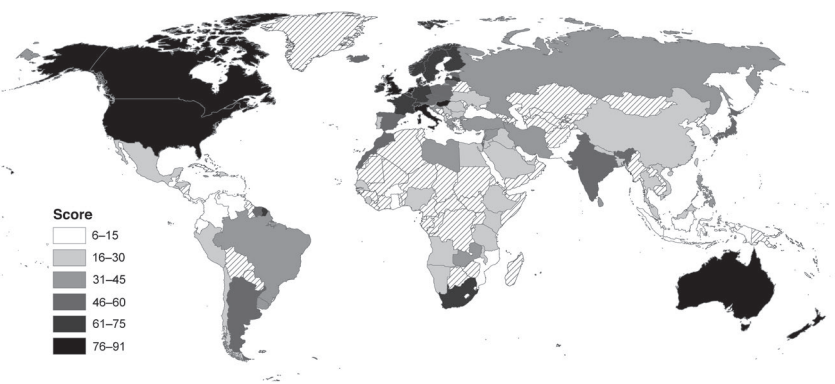

FIGURE 1.2. Global map of individualism based on Hofstede's omnibus scale covering 93 countries. Darker shading indicates greater individualism. Hatched areas indicate a lack of data.[9]

alism package. At the high end of the scale, you won't be shocked to find Americans (score 91), Australians (90), and Brits (89)—no doubt these are some of the WEIRDest people in the world. Beneath these chart-toppers, the most individualistic societies in the world are almost all in Europe, particularly in the north and west, or in British-descent societies like Canada (score 80) and New Zealand (79). Notably, Figure 1.2 also reveals our ignorance, as swaths of Africa and Central Asia remain largely terra incognita, psychologically speaking.[10]

This omnibus measure of individualism converges strikingly with evidence from other large global surveys. People from more individualistic countries, for example, possess weaker family ties and show less nepotism, meaning that company bosses, managers, and politicians are less likely to hire or promote relatives. Further, more individualistic countries are less inclined to distinguish in-groups from out-groups, more willing to help immigrants, and less firmly wedded to tradition and custom.

More individualistic countries are also richer, more innovative, and more economically productive. They possess more effective governments, which more capably furnish public services and infrastructure, like roads, schools, electricity, and water.[11]

Now, it's commonly assumed that the strong positive relationships between psychological individualism and measures like national wealth and effective governments reflect a one-way causal process in which economic prosperity or liberal political institutions cause greater individualism. I certainly think that causality does indeed flow in this direction for some aspects of psychology, and probably dominates the economic and urbanization processes in much of the world today. We've seen how, for example, moving to urban areas likely affected the self-concepts of Cook Islanders and Nairobi laborers (Figure 1.1).[12]

However, could the causality *also* run the other way? If some other factor created more individualistic psychologies first, prior to economic growth and effective governments, could such a psychological shift stimulate urbanization, commercial markets, prosperity, innovation, and the cre-

ation of new forms of governance? To summarize, my answers are yes and yes. To see how this could happen, let's first look at the broader psychological package that has become historically intertwined with the individualism complex. Once you see the key psychological components, it should be clearer how these changes could have had such big effects on Europe's economic, religious, and political history.

Before continuing our global tour of psychological variation, let me highlight four important points to keep in mind:[13]

1. We should celebrate human diversity, including psychological diversity. By highlighting the peculiarities of WEIRD people, I'm not denigrating these populations or any others. My aim is to explore the origins of psychological diversity and the roots of the modern world.
2. Do not set up a WEIRD vs. non-WEIRD dichotomy in your mind! As we'll see in many maps and charts, global psychological variation is both continuous and multidimensional.
3. Psychological variation emerges at all levels, not merely among nations. I'm sometimes stuck comparing country averages, because that's the available data. Nevertheless, throughout the book, we'll often examine psychological differences within countries—between regions, provinces, and villages, and even among second-generation immigrants with diverse backgrounds. Even though WEIRD populations typically cluster at one end of global distributions, we'll explore and explain the interesting and important variation within Europe, "the West," and the industrialized world.
4. None of the population-level differences we observe should be thought of as fixed, essential, or immutable features of nations, tribes, or ethnic groups. To the contrary, this book is about how and why our psychology has changed over history and will continue to evolve.

CULTIVATING THE WEIRD SELF

Adapting to an individualistic social world means honing personal attributes that persist across diverse contexts and relationships. By contrast, prospering in a regulated-relational world means navigating very different kinds of relationships that demand quite different approaches and behaviors. Psychological evidence from diverse societies, including populations in the United States, Australia, Mexico, Malaysia, Korea, and Japan, reveals these patterns. Compared to much of the world, WEIRD people report behaving in more consistent ways—in terms of traits like "honesty" or "coldness"—across different types of relationships, such as with younger peers, friends, parents, professors, and strangers. By contrast, Koreans and Japanese report consistency only *within* relational contexts—that is, in how they behave separately toward their mothers, friends, or professors across time. *Across* relational contexts, they vary widely and comfortably: one might be reserved and self-deprecating with professors while being joking and playful with friends. The result is that while Americans sometimes see behavioral flexibility as "two-faced" or "hypocritical," many other populations see personal adjustments to differing relationships as reflecting wisdom, maturity, and social adeptness.[14]

Across societies, these differing expectations and normative standards incentivize and mold distinct psychological responses. For example, in a study comparing Koreans and Americans, both parents and friends were asked to make judgments about the characteristics of the study participants. Among Americans, participants who had reported greater behavioral consistency across contexts were rated as both more "socially skilled" and more "likable" by parents and friends than those who reported less consistency. That is, among WEIRD people, you are *supposed* to be consistent across relationships, and you will do better socially if you are. Meanwhile, in Korea, there was no relationship between the consistency measure across relationships and either social skills or likability—so, being consistent doesn't buy you anything socially. Back in the United States, the degree of agreement between parents and friends on the characteristics of the target partici-

pants was twice that found in Korea. This means that "the person" "seen" by American friends looked more similar to that seen by American parents than in Korea, where friends and parents experience the same individuals as more different. Finally, the correlation between personal consistency across relationships and measures of both life satisfaction and positive emotions was much stronger among Americans than among Koreans. Overall, being consistent across relationships—"being yourself"—pays off more in America, both socially and emotionally.[15]

Such evidence suggests that the immense importance assigned by the discipline of psychology to notions of self-esteem and positive self-views is probably a WEIRD phenomenon. In contrast, in the few non-WEIRD societies where it has been studied, having high self-esteem and a positive view of oneself are *not* strongly linked to either life satisfaction or subjective well-being. In many societies, it's *other-esteem* ("face") that matters, not self-esteem rooted in the successful cultivation of a set of unique personal attributes that capture one's "true self."[16]

In WEIRD societies, the pressure to cultivate traits that are consistent across contexts and relationships leads to *dispositionalism*—a tendency to see people's behavior as anchored in personal traits that influence their actions across many contexts. For example, the fact that "he's lazy" (a disposition) explains why he's not getting his work done. Alternatively, maybe he's sick or injured? Dispositionalism emerges psychologically in two important ways. First, it makes us uncomfortable with our own inconsistencies. If you've had a course in Social Psychology, you might recognize this as *Cognitive Dissonance*. The available evidence suggests that WEIRD people suffer more severely from *Cognitive Dissonance* and do a range of mental gymnastics to relieve their discomfort. Second, dispositional thinking also influences how we judge others. Psychologists label this phenomenon the *Fundamental Attribution Error*, though it's clearly not that fundamental; it's WEIRD. In general, WEIRD people are particularly biased to attribute actions or behavioral patterns to what's "inside" others, relying on inferences about dispositional traits (e.g., he's "lazy" or "untrustworthy"), personalities (she's "introverted" or "conscientious"), and underlying beliefs or intentions

("what did he know and when did he know it?"). Other populations focus more on actions and outcomes over what's "inside."[17]

GUILT-RIDDEN BUT SHAMELESS

Based on data from 2,921 university students in 37 countries, people from more individualistic societies report more guilt-like and fewer shame-like emotional experiences. In fact, students from countries like the United States, Australia, and the Netherlands hardly ever experience shame. Yet they had more guilt-like experiences than people in other societies; these experiences were more moralized and had a greater impact on both their self-esteem and personal relationships. Overall, the emotional lives of WEIRD people are particularly guilt-ridden.[18]

To understand this, we first need to consider shame and guilt more deeply. Shame is rooted in a genetically evolved psychological package that is associated with *social devaluation in the eyes of others*. Individuals experience shame when they violate social norms (e.g., committing adultery), fail to reach local performance standards (e.g., flunking a psychology course), or when they find themselves at the low end of the dominance hierarchy. Shame has a distinct universal display that involves downcast gaze, slumped shoulders, and a general inclination to "look small" (crouching). This display signals to the community that these poor performers recognize their violation or deficiency and are asking for leniency. Emotionally, those experiencing shame want to shrink away and disappear from public view. The ashamed avoid contact with others and may leave their communities for a time. The public nature of the failure is crucial: if there's no public knowledge, there's no shame, although people may experience fear that their secret will get out. Finally, shame can be experienced vicariously. In regulated-relational societies, a crime or illicit affair by one person can bring shame to his or her parents, siblings, and beyond, extending out to cousins and other distant relations. The reverberation of shame through kin networks makes sense because they are also judged and potentially punished for their relative's actions.[19]

Guilt is different; it's an internal guidance system and at least partially

a product of culture, though it probably integrates some innate psychological components like regret. The feeling of guilt emerges when one measures their own actions and feelings against a purely personal standard. I can feel guilty for eating a giant pizza alone in my house or for not having given my change to the homeless guy that I encountered early Sunday morning on an empty Manhattan street. I feel this because I've fallen below my own personal standard, not because I've violated a widely shared norm or damaged my reputation *with others*.

Of course, in many cases we might experience both shame and guilt because we publicly violated a social norm—e.g., smacking a misbehaving son. Here, the shame comes from believing that others will now think less of us (I am the kind of person who hits children) and the guilt from our own internalized standards (e.g., don't hit children, even in anger). Unlike shame, guilt has no universal displays, can last weeks or even years, and seems to require self-reflection. In contrast to the spontaneous social "withdrawal" and "avoidance" of shame, guilt often motivates "approach" and a desire to mitigate whatever is causing the guilt. Guilty feelings from letting a friend or spouse down, for example, can motivate efforts to apologize and repair the relationship.[20]

It's easy to see why shame dominates many regulated-relational societies. First, there are many more closely monitored social norms that vary across contexts and relationships, and consequently more chances to screw up and commit shame-inducing errors, which are more likely to be spotted by members of people's dense social networks. Second, relative to individualistic societies, people in regulated-relational societies are expected to fulfill multiple roles over their lives and develop a wide set of skills to at least some minimum threshold. This creates more opportunities to fall below local standards in the eyes of others. Third, social interdependence means that people can experience shame even if they themselves never do anything shameful. Of course, guilt probably also exists in many societies dominated by shame; it's just less prominent and less important for making these societies function.[21]

By contrast, guilt rises to prominence in individualistic societies. As

individuals cultivate their own unique attributes and talents, guilt is part of the affective machinery that motivates them to stick to their personal standards. Vegetarians, for example, might feel guilty for eating bacon even when they are traveling in distant cities, surrounded by nonvegetarians. No one is judging them for enjoying the bacon, but they still feel bad about it. The idea here is that, in individualistic societies, those who don't feel much guilt will struggle to cultivate dispositional attributes, live up to their personal standards, and maintain high-quality personal relationships. Relative to guilt, shame is muted, because the social norms governing diverse relationships and contexts in individualistic societies are fewer, and often not closely monitored in these diffuse populations.[22]

LOOK AT ME!

Psychologists have been fascinated for over half a century by people's willingness to conform to peers and obey authority figures.[23] In Solomon Asch's famous experiment, each participant entered the laboratory along with several other people, who appeared to be fellow participants. These "fellow participants," however, were actually confederates who were working for the researchers. In each round, a target line segment was shown to the group alongside a set of three other segments, labeled 1, 2, and 3 (see the inset in Figure 1.3). Answering aloud, each person had to judge which of the three line segments matched the length of the target segment. On certain preset rounds, the confederates all gave the same *incorrect* response before the real participant answered. The judgment itself was easy: participants got the correct answer 98 percent of the time when they were alone. So, the question was: How inclined were people to override their own perceptual judgments to give an answer that matched that of others?

The answer depends on where you grew up. WEIRD people do conform to others, and this is what surprised Solomon. Only about one-quarter of his participants were never influenced by their peers. WEIRD people, however, conform less than all the other populations that have been studied. The bars in Figure 1.3 illustrate the size of the conformity effect across samples of undergraduates from 10 different countries. The power of confor-

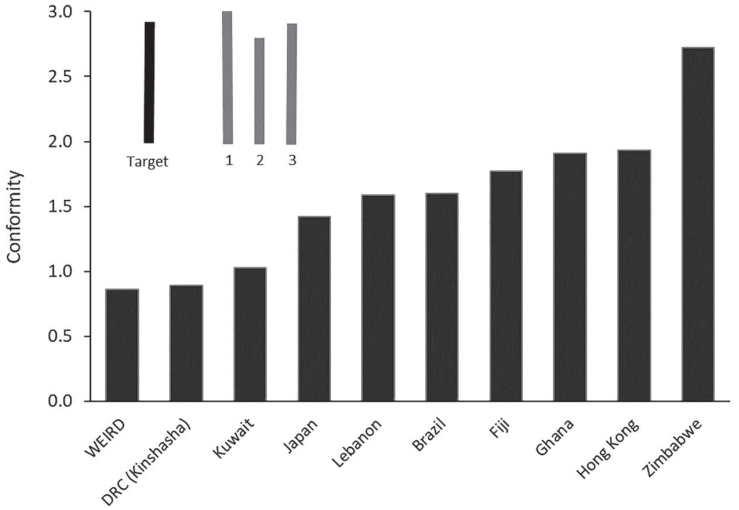

FIGURE 1.3. Strength of the conformity effect in the Asch Conformity Experiment across 10 diverse populations. The bars for WEIRD societies, Japan, and Brazil represent averages from multiple studies.[24]

mity goes up by a factor of three as we move from WEIRD societies, at one end, to Zimbabwe, at the other end.[25]

Further analyses of these experiments reveal two interesting patterns. First, less individualistic societies are more inclined to conform to the group (correlating the data in Figures 1.2 and 1.3). Second, over the half century since Solomon's initial efforts, conformity motivations among Americans have declined. That is, Americans are even less conforming now than in the early 1950s. Neither of these facts is particularly shocking, but it's nice to know that the psychological evidence backs up our intuitions.[26]

The willingness of WEIRD people to ignore others' opinions, preferences, views, and requests extends well beyond peers to include elders, grandfathers, and traditional authorities. Complementing these controlled studies of conformity, I'll discuss global survey data in later chapters showing that, relative to other populations, WEIRD people don't value conformity or see "obedience" as a virtue that needs to be instilled in children. They also don't

venerate either traditions or ancient sages as much as most other societies have, and elders simply don't carry the same weight that they do in many other places.[27]

Suppose something happened historically that made people less conforming, less obedient, and less willing to defer to elders, traditional authorities, and ancient sages. Could such changes influence the cultural evolution of organizations, institutions, and innovation?

Marshmallows Come to Those Who Wait

Here's a series of choices. Do you prefer (A) $100 today or (B) $154 in one year? If you picked the $100 now, I'm going to sweeten the deal for next year and ask you whether you want (A) $100 today or (B) $185 in one year. But, if you initially said that you wanted to wait the year for the $154, I'll make the delayed payment less appealing by asking you to pick between (A) $100 today or (B) $125 next year. If you now switch from the delayed payment (B) to $100 now (A), I will sweeten the delayed payment to $130. By titrating through these kinds of binary choices, researchers can triangulate in on a measure of people's patience, or what is variously called "temporal discounting" or "delay discounting." Impatient people "discount" the future more, meaning they weight immediate payoffs over delayed payoffs. More patient people, by contrast, are willing to wait longer to earn more money.

Patience varies dramatically across nations, among regions within nations, and between individuals. Using the titration method just described, along with a survey question, the economists Thomas Dohmen, Benjamin Enke, and their collaborators measured patience among 80,000 people in 76 countries. Figure 1.4 maps this variation at the country level, using darker shades to indicate countries in which people are—on average—more patient. While those in lightly shaded countries tend to go for the quick $100 today (calibrated to the local currency and purchasing power), those in the darkly shaded countries tend to wait the year for the bigger payoff. For example, people from the most patient country, Sweden, can resist the immediate $100 and are willing to wait a year for any amount of money over

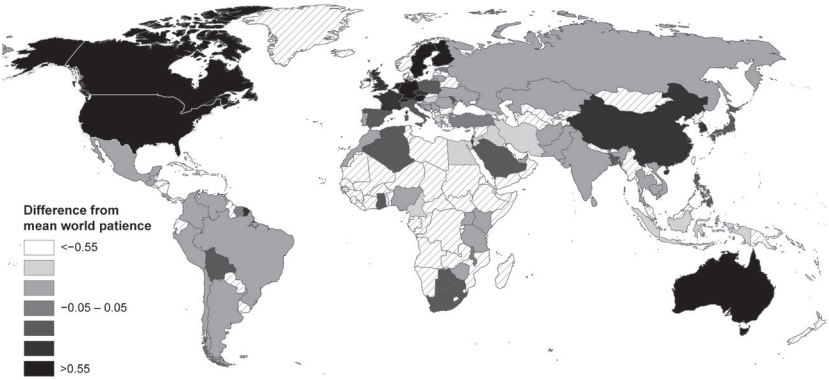

FIGURE 1.4. Global distribution of patience across 76 countries. Darker shades indicate greater patience. Hatched regions indicate a lack of data.[28]

$144. In contrast, in Africa, Rwandans require at least $212 in a year before they are willing to pass up $100 today. On average, around the globe, people won't defer gratification for a year until the delayed amount exceeds $189.

This map nicely highlights a continuous spread of global national-level variation in patience, including some variation within Europe. Starting with the most patient, the countries in black are: Sweden, the Netherlands, the United States, Canada, Switzerland, Australia, Germany, Austria, and Finland.[29]

Greater patience in these experiments is associated with better economic, educational, and governmental outcomes across countries, between regions within countries, and even among individuals within regions. At the national level, countries with more patient populations generate greater incomes (Gross Domestic Product, or GDP, per capita) and more innovation. These populations have higher savings rates, more formal schooling, and stronger cognitive skills in math, science, and reading. Institutionally, more patient countries have more stable democracies, clearer property rights, and more effective governments. The strong relationship between patience and these outcomes emerges even when we look at each world region separately. In fact, the data suggest that greater patience is most strongly linked

to positive economic outcomes in less economically developed regions like sub-Saharan Africa, Southeast Asia, and the Middle East. That is, inclinations to defer gratification may be even more important for economic prosperity where the formal economic and political institutions operate less effectively.[30]

The same patterns emerge if we compare regions within countries or individuals within local regions. Within countries, regional populations possessing greater average patience generate higher incomes and attain more education. Similarly, comparing individuals within the same local area, more patient people get paid more and stay in school longer.

Delay-discounting measures are related to what psychologists call *self-regulation* or *self-control*. To measure self-control in children, researchers sit them in front of a single marshmallow and explain that if they wait until the experimenter returns to the room, they can have two marshmallows instead of just the one. The experimenter departs and then secretly watches to see how long it takes for the kid to cave and eat the marshmallow. Some kids eat the lone marshmallow right away. A few wait 15 or more minutes until the experimenter gives up and returns with the second marshmallow. The remainder of the children cave in somewhere in between. A child's self-control is measured by the number of seconds they wait.[31]

Psychological tasks like these are often powerful predictors of real-life behavior. Adults and teenagers who were more patient in the marshmallow task as preschoolers stayed in school longer, got higher grades, saved more money, earned higher salaries, exercised more, and smoked less. They were also less likely to use drugs, abuse alcohol, and commit crimes. The effect of steely marshmallow patience on adult success holds independent of IQ and family socioeconomic status, and even if you only compare siblings within the same families—that is, a more patient child does better than her sibling when they are adults.[32]

As with individualism, guilt, and conformity, a person's patience and self-control are calibrated to fit the institutional and technological environments that they confront across their lives. In some regulated-relational societies, there's little personal payoff to self-control, so we shouldn't expect

the association between patience and adult success to be universal. Nevertheless, when local social norms reward self-control or penalize impatience, all manner of psychological tricks develop that ratchet up people's self-control. As we go along, we'll see how cultural learning, rituals, monogamous marriage, markets, and religious beliefs can contribute to increasing people's patience and self-control in ways that lay the groundwork for new forms of government and more rapid economic growth.

UN Diplomats Get Parking Tickets

Representing 149 countries, diplomats to the United Nations in New York City were immune from having to pay parking tickets until November 2002. With diplomatic immunity, they could park anywhere, double-park, and even block driveways, business entrances, and narrow Manhattan streets without having to pay fines. The effect of this immunity was big: between November 1997 and the end of 2002, UN diplomatic missions accumulated over 150,000 *unpaid* parking tickets totaling about $18 million in fines.

While bad for New Yorkers, this situation created a natural experiment for two economists, Ted Miguel and Ray Fisman. Because nearly 90 percent of UN missions are within one mile of the UN complex, most diplomats faced the same crowded streets, rainy days, and snowy weather. This allowed Ted and Ray to compare the accumulation of parking tickets for diplomats from different countries.

The differences were big. During the five years leading up to the end of immunity in 2002, diplomats from the UK, Sweden, Canada, Australia, and a few other countries got a total of zero tickets. Meanwhile, diplomats from Egypt, Chad, and Bulgaria, among other countries, got the most tickets, accumulating over 100 *for each member* of their respective diplomatic delegations. Looking across nations, the higher the international corruption index for a delegation's home country, the more tickets those delegations accumulated. The relationship between corruption back home and parking behavior in Manhattan holds independent of the size of a country's

UN mission, the income of its diplomats, the type of violation (e.g., double-parking), and the time of day.[33]

In 2002, diplomatic immunity for parking violations ended and the New York Police Department clamped down, stripping the diplomatic license plates from vehicles that had accumulated more than three parking violations. The rate of violations among diplomats plummeted. Nevertheless, despite the new enforcement and overall much lower violation rates, the diplomats from the most corrupt countries still got the most parking tickets.

Based on real-world data, this study suggests that the delegations from diverse countries brought certain psychological tendencies or motivations with them from home that manifested in their parking behavior, especially when there was no threat of external sanctions.[34] This is not, however, a tightly controlled laboratory experiment. Diplomatic scofflaws, for example, may have been influenced by the opinions of their passengers or by a greater desire to annoy police who they may have perceived as xenophobic. So, those from less corrupt countries like Canada might appear to be acting impartially and in favor of anonymous New Yorkers, but we can't be totally sure.

Now, consider this experiment, the Impersonal Honesty Game: university students from 23 countries entered a cubicle with a computer, a die, and a cup. Their instructions were to roll the die twice using the cup and then report the first roll on the computer screen provided. They were paid in real money according to the number that they rolled: a roll of 1 earned $5; 2, $10; 3, $15; 4, $20; 5, $25; and 6, $0. Basically, the higher the number they rolled, the more money they got, except for a 6, which paid nothing.

The goal of this experimental setup was to assess participants' inclinations toward impersonal honesty while minimizing their concerns about the watchful eyes and judgments of other people, including the experimenters. Participants were alone in a cubicle and could simply cover the die with their hand if they were concerned about secret surveillance. Of course, this meant that no one, including the experimenters, could really know what number a person rolled. But, while there's no way to know what any single person actually did, we have probability theory, which tells us what should happen at the group level, if people follow the rules.

Let's consider the percentage of people from each country who reported rolling a "high-payoff" number, a die roll of 3, 4, or 5. Since a die has six sides, half of the rolls should be these "high-payoff" values if people are reporting honestly. Thus, 50 percent is our *impartial benchmark*. By contrast, self-interested individuals should just report a 5. If everyone in a country were self-interested, we'd expect 100 percent of reported rolls to be high-payoff. This is our *self-interested benchmark*.

Not surprisingly, all countries fall between our two benchmarks. In WEIRD countries like Sweden, Germany, and the UK, the reported high-payoff rolls are about 10 to 15 percentile points above the impartial benchmark of 50 percent. Across countries, however, the percentage reporting higher rolls goes up from there to nearly 85 percent in Tanzania. As expected, every population breaks impartial rules; but, it turns out that some populations break such rules more than others.[35]

Figure 1.5 shows the strong relationship between the percentage of high-payoff reports in this simple experiment and an index of corruption for each country. As with parking violations around the UN, people from more corrupt countries were more likely to violate an impartial rule. Unlike with the diplomats, however, this is a controlled experimental situation in which even the experimenters can't figure out what any one person did. The difference must thus lie in what people bring into the cubicle with them.

It's important to realize that this is a quintessentially WEIRD experiment. The task measures people's motivation to follow an impartial and arbitrary allocation rule over one's own self-interest (why does 6 result in zero, anyway?). Extra money one obtains by misreporting a die roll doesn't obviously take money away from another person, but only vaguely from some impersonal institution—the research team or their funders. No one is directly hurt if you report a 5 instead of a 6, and anonymity is virtually assured. At the same time, any extra money you get by inflating your die roll, or by merely entering a 5 into the computer, could be shared with your children, parents, friends, or needy cousins. In fact, misreporting could be seen as an opportunity to help your family and close friends at the expense

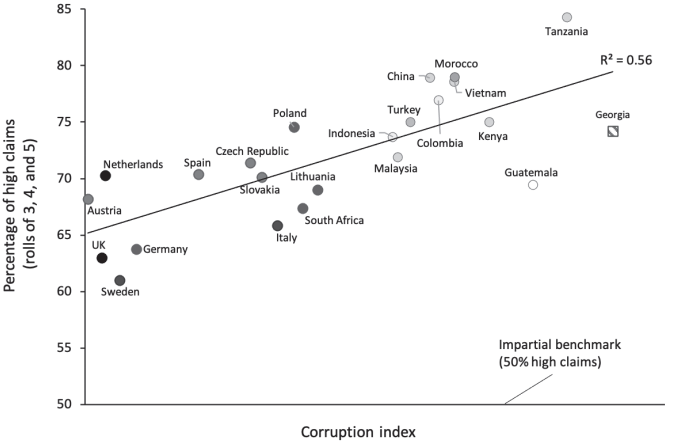

FIGURE 1.5. Relationship between the percentage of people reporting dice rolls of 3, 4, or 5 for each country and the corruption index. The darker the circle, the higher the country's score on psychological individualism, as shown in Figure 1.2. The hatched box for the Republic of Georgia indicates missing data on individualism.[36]

of some impersonal organization. In some places, it would be considered irresponsible not to violate such a silly rule to help one's family.

Why do so many WEIRD people act against their families' interests to follow this arbitrary, impartial rule, and expect others to follow it as well? Could this dimension of psychology influence the formation and functioning of formal governing institutions?

WEIRD PEOPLE ARE BAD FRIENDS

You are riding in a car driven by a close friend. He hits a pedestrian. You know that he was going at least 35 mph in an area of the city where the maximum allowed speed is 20 mph. There are no witnesses, except for you. His lawyer says that if you testify under oath that he was driving only 20 mph, it may save him from serious legal consequences.

Do you think:

a. that your friend has a definite right to expect you to testify (as his close friend), and that you would testify that he was going 20 mph, or
b. that your friend has little or no right to expect you to testify and that you would not falsely testify that he was only going 20 mph?

This is the Passenger's Dilemma, which has been done with managers and businesspeople around the world. If you picked response (b), you're probably pretty WEIRD, like people in Canada, Switzerland, and the United States, where more than 90 percent of participants prefer not to testify and don't think their friend has any right to expect such a thing. This is the *universalistic* or nonrelational response. By contrast, in Nepal, Venezuela, and South Korea, most people said they'd willingly lie under oath to help a close friend. This is the *particularistic* or *relational* response, which captures people's loyalty to their family and friends. Figure 1.6 maps the percentage

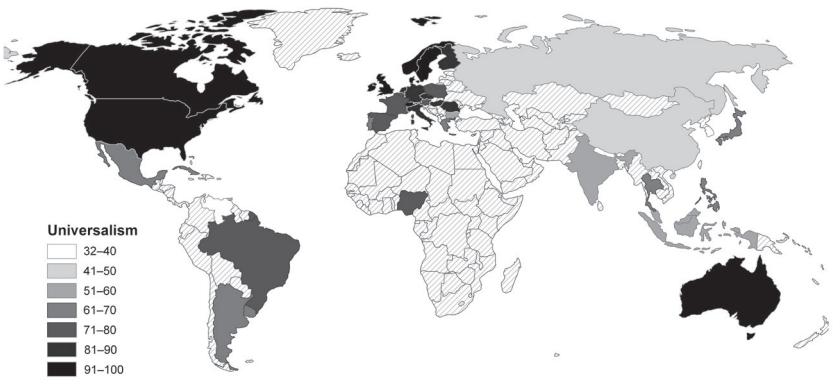

FIGURE 1.6. Universalistic or nonrelational responses to the Passenger's Dilemma among managers in 43 countries around the globe. The darker shading captures the percentage of people who gave the universalistic response and were thus unwilling to help their friends. Cross-hatching indicates that no data are available.[37]

of universalistic responses across 43 countries, with darker shades indicating more universalistic and fewer particularistic responses.[38]

There's nothing special about the content of the Passenger's Dilemma. In places where people would help their friends by testifying, they also report a willingness to (1) give their friends insider company information, (2) lie about a friend's medical exam to lower his insurance rates, and (3) exaggerate the quality of the cuisine at a friend's restaurant in a published review. In these places, the "right" answer is to help your friend. People aren't trying to distinguish themselves as relentlessly honest individuals governed by impartial principles. Instead, they are deeply loyal to their friends and want to cement enduring relationships, even if this involves illegal actions. In these places, being nepotistic is often the morally correct thing to do. By contrast, in WEIRD societies, many people think badly of those who weight family and friends over impartial principles and anonymous criteria like qualifications, merit, or effort.

TRUSTING STRANGERS

How would you answer the famous Generalized Trust Question (GTQ): "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"

The percentage of those surveyed who say that most people can be trusted provides us with a crude assessment of *impersonal trust* that we can use to map the globe. The GTQ has been so widely used that we can distinguish not only countries but also regions, provinces, and U.S. states. The darker the shading in Figure 1.7, the higher the percentages of people in that region who say that most people can be trusted.

WEIRD populations have among the highest levels of impersonal trust, although there's interesting variation within both the United States and Europe. Across countries, the percentage of people who generally think most people can be trusted ranges from 70 percent in Norway to 4–5 percent in Trinidad and Tobago. In the United States, people in North Dakota and New Hampshire are the most trusting, with around 60 percent of people generally trusting others; meanwhile, at the other end, only about

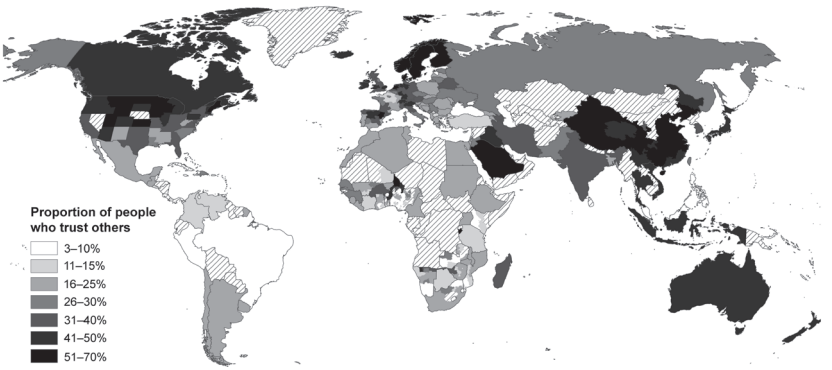

FIGURE 1.7. Impersonal Trust Map. This maps responses to the Generalized Trust Question across countries and among regions within certain larger countries. Darker shading indicates greater impersonal trust. Specifically, the higher the percentage of people in the area who said that most people could be trusted, the darker the shading. Hatched areas reveal our ignorance. For the United States, the shading gives the average percentage of "trusters" from 1973 to 2006 in different states.[39]

20 percent of people are generally trusting in Alabama and Mississippi. In Europe, regional variation is also substantial. For example, trust is twice as high in Trento, in northern Italy (49 percent), than in Sicily (26 percent), in the south. A similar pattern distinguishes northern from southern Spain.[40]

While the GTQ is useful, because it has been put to hundreds of thousands of people around the world, we should worry that it might not capture people's actual decisions when they confront a stranger in a situation involving real money. To explore this, researchers have combined data from hundreds of experiments in which they paired strangers, put cash on the line, and then observed how much trust was extended in making an investment. The data, from over 20,000 participants in 30 countries, confirm that in places where people actually do trust strangers in anonymous experimental settings, they also tend to say, when asked the GTQ, that most people can be trusted.[41]

However, although the GTQ often does tap *impersonal* trust, it can be misleading in places where a dense network of relational ties sustains broad

trust without fostering sociality and exchange among strangers. For example, the dense social networks in China allow many populations to maintain high levels of trust with those around them ("people around here") without possessing much *impersonal* trust. The signature for this pattern emerges when people are specifically asked about how much they trust strangers, foreigners, and people they've met for the first time. In China, people report trust on the GTQ but explicitly distrust strangers, foreigners, and new acquaintances.[42]

Impersonal trust is part of a psychological package called *impersonal prosociality*, which is associated with a set of social norms, expectations, and motivations for impartial fairness, probity, and cooperation with strangers, anonymous others, or even abstract institutions like the police or government. Impersonal prosociality includes the inclinations we feel toward a person who is not tied into our social network at all. How should I treat this person? It's like a baseline level of prosociality with anonymous others, or a default strategy.[43]

Impersonal prosociality also includes motivations, heuristics, and strategies for punishing those who break impartial norms. In places where people trust strangers and cooperate with those they've just met, they are also more inclined to punish anyone who violates their impartial norms of fairness or honesty even if the violation isn't directly against themselves. At the same time, they are less inclined to seek revenge against those who've personally crossed them.

These psychological differences are strongly associated with national outcomes around the globe. Countries where people show more impersonal prosociality have greater national incomes (GDP per capita), greater economic productivity, more effective governments, less corruption, and faster rates of innovation. Of course, if formal institutions like courts, police, and governments are well functioning, it's a lot easier to develop impersonal prosociality, but how do you get there in the first place? Won't in-group loyalty, nepotism, cronyism (i.e., loyalty to friends), and corruption always undermine any effort to build formal governing institutions that are impersonal, impartial, and effective? What if a psychology favorable to imper-

sonal prosociality arose first, prior to any complementary formal governing institutions?[44]

Obsessed with Intentions

> Two men, Bob and Andy, who did not know one another, were at a very busy outdoor market. There were lots of people. It was very crowded and there was not very much room to walk through the crowd. Andy was walking along and stopped to look at some items on display, placing a bag that he was carrying on the ground. Bob noticed Andy's bag on the ground. While Andy was distracted, Bob leaned down and picked up Andy's bag and walked away with it.

How good or bad was what Bob did? (use this scale)

VERY BAD BAD NEITHER GOOD NOR BAD GOOD VERY GOOD

Now, try this one:

> Two men, Rob and Andy, who did not know one another, were at a very busy outdoor market. There were lots of people there. It was very crowded and there was not very much room to walk through the crowd. Rob was walking along and stopped to look at some items on display, placing a bag that he was carrying on the ground. Another very similar bag was sitting right next to Rob's bag. The bag was owned by Andy, whom Rob did not know. When Rob turned to pick up his bag, he accidentally picked up Andy's bag and walked away with it.

How do you judge Rob in this situation? How good or bad was what Rob did? (Use the above scale.)

Most Americans judge Rob less harshly than Bob, seeing him only as "bad" instead of "very bad." Similarly, judgments of how much Bob and

Rob should be punished drop from "very severely" (Bob) to only "severely" (Rob). The sole difference between Rob and Bob in these stories is their mental states—their intentions. Bob stole Andy's bag while Rob took it by accident. In both cases, equal harm was done to Andy.

To explore the role of intentions in moral judgments, a team led by the anthropologist Clark Barrett and the philosopher Steve Laurence (and including me) administered a battery of vignettes like those above to several hundred people in 10 diverse populations from around the globe, including traditional societies in Amazonia, Oceania, Africa, and Southeast Asia. We aimed not for broad samples from whole countries or regions, as with much of the data discussed above, but for remote, rural, and relatively independent small-scale societies that still maintain traditional lifeways. Economically, most of these groups produce their own food, whether by hunting, fishing, farming, or herding. For comparison, we also included people living in Los Angeles. The various vignettes that people responded to focused on theft, poisoning, battery, and food taboo violations, and examined a wide range of factors that might influence people's judgments of someone like Bob or Rob.[45]

It turns out that how much people rely on others' mental states in judging them varies dramatically across societies. As usual, WEIRD people anchor the extreme end of the distribution, relying heavily on the inferences we make about the invisible states inside other people's heads and hearts.

Figure 1.8 summarizes people's responses to the above vignettes—our theft scenario. The height of the bars represents the difference between how harshly people judged Bob (intentional theft) vs. Rob (accidental theft). These scores combine measures of goodness and badness with how much the participants thought the perpetrators' reputations should be damaged and how much they should be punished. The results reveal the importance of intentions across these populations—taller bars mean that people weighted Rob's and Bob's intent more heavily for punishment and reputation as well as badness. On the right side, the populations in Los Angeles and eastern Ukraine gave the greatest weight to Bob's intentions, judging him much more harshly than they did Rob. At the other end of the distribution, the

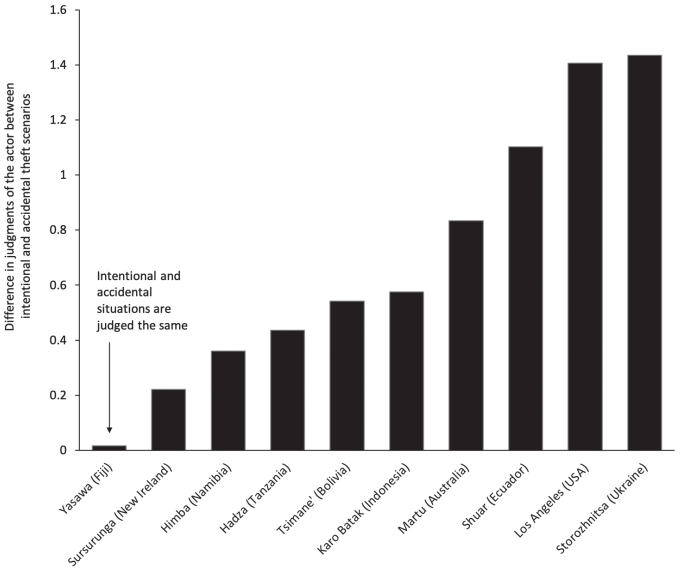

FIGURE 1.8. For 10 diverse societies, this plot shows the differences between the severity of judgments for the intentional vs. accidental theft scenarios (as presented for Rob and Bob, above). The judgments combine measures of badness, reputational damage, and punishment. The taller the bar, the larger the impact of intentions on the severity of judgments.

people of Yasawa Island (Fiji) made no distinction between Bob and Rob. Other groups, like the Sursurunga in New Ireland (Papua New Guinea) and Himba herders (Namibia), used intentions to shade their judgments of perpetrators, but the overall impact of intentions was small.

Patterns similar to those shown for theft in Figure 1.8 emerge for crimes like battery and poisoning, as well as for taboo violations. The importance of intentionality varies from zero in Yasawa, Fiji, to its maximum among WEIRD people.[46]

Differences such as these—in the use of mental states for making moral judgments—have been confirmed in subsequent research and aren't confined to comparing small-scale societies to WEIRD people. The Japanese, for example, are less inclined than Americans to weigh intentionality when mak-