

Economics from the Top Down

new ideas in economics and the social sciences

Weird Consilience: A Review of Joseph Henrich's 'The WEIRDest People in the World'

Blair Fix

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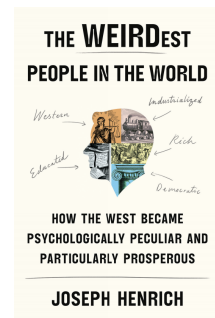
The anthropologist Joseph Henrich has written a book called *The WEIRDest People in the World*. It offers a captivating look at the roots of Western psychology (and capitalism). Here is my in-depth review.

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Edward O. Wilson, the famed evolutionary biologist and entomologist, argued that the goal of science should be to construct a single 'consilient' tree of knowledge. For the most part, the natural sciences have achieved this vision. Modern chemistry is rooted in quantum physics, and the study of biology is based on organic chemistry. When we get to the social sciences, however, we run into problems. On the spectrum of life on Earth, human behavior seem so exceptional that it is difficult to make the social sciences fit with the rest of biology.

The trouble is human culture.

Or more precisely, the dilemma is how to make *sense* of culture in light of evolution. One option is to claim that culture doesn't really exist, meaning the behaviors we think are 'learned' are actually instinctive. This idea is clearly wrong. It implies, for example, that reading is genetic. And yet the spread of literacy has been so rapid that it cannot possibly be due to changing genes. Another option is to claim that humans are 'blank slates' whose behavior



is determined almost completely by culture. But since some behaviors are obviously instinctive (i.e. breathing), we find that the supposedly ‘blank’ slate is not actually empty.

So the truth about human behavior lies somewhere in the middle; actions are determined jointly by genes and culture. Okay, but then where does culture come from? Surprisingly, it took a long time for scientists to realize the answer. Similar to genes, cultures *evolve*.

The roadblock to studying cultural evolution was mostly philosophical. For much of the 20th century, scientists tried to reduce evolution to competition between individuals. (Richard Dawkins popularized this worldview in his book *The Selfish Gene*.) While the individualist lens works well for animals that are asocial, for social animals it leads to a large blind spot: it negates the idea of group-level adaptations. And as it turns out, that’s the best way to understand culture. Human culture is a **group-level adaptation**. The idea is that cultures evolve when groups compete. Winning groups spread their culture. Losing groups don’t.

In the last few decades, the idea of cultural evolution has become more popular, giving rise to some fascinating new research. What’s important is that cultural evolution gives us a lens to make sense of history — a lens that is consilient with the rest of evolutionary biology.

Joseph Henrich’s book *The WEIRDest People in the World* is a major contribution to the study of cultural evolution. Like many big-picture histories, Henrich traces the evolution of Western culture. However, the story that Henrich tells is highly original. He argues that Western culture arose from norms around sex. Let’s say that again: Henrich claims that the rise of the West stems from norms around sex.

Skeptical? So was I. But after reading Henrich’s book, I am convinced that he is on the right track. It seems that we may owe Western culture to an odd little religion that got obsessed with banning all forms of incest. Of course, *WEIRDest People* doesn’t have all the pieces of the puzzle. (There are some important omissions, which I’ll discuss.) But overall, Henrich’s book offers a compelling new perspective on human history.

WEIRD psychology

In *WEIRDest People*, Henrich approaches history from an unusual angle. In epics about the rise and fall of civilizations, we rarely hear about psychology. And yet that is precisely where Henrich begins his account of Western history.

Some backstory. For most of the last century, scientists assumed that human psychology was roughly universal. The idea was that Amazon hunter gatherers (for example) would respond to psychological tests similarly to American college students. This assumption made life easy for psychologists. They could study college students (who were cheap and easy test fodder) and then assume that their results would hold across all cultures. Unfortunately, most psychologists never bothered to verify that this assumption was true.

It was an Aristotelian mistake.¹

It turns out that human psychology varies significantly across cultures. Worse still, college students (who tend to be rich and mostly from Western societies) are not in the middle of the pack. No, in almost every way, college students are weird. Hence the title of Henrich's book, *The WEIRDest People*. The word 'WEIRD' is Henrich's acronym for people who are Western, Educated, Industrialized, Rich and Democratic. Compared to other cultures, WEIRD people are:

1. more individualistic
2. more 'impersonally prosocial' (trusting of strangers)
3. show less favoritism to in-groups
4. focused more on mental states (when judging ethics)
5. more analytical
6. more prone to universalism
7. more overconfident

A decade ago, Henrich and his colleagues [documented](#) the unusual features of WEIRD psychology. In *The WEIRDest People*, Henrich tries to explain how these traits 'evolved'. I've used scare quotes here because to many social

¹Aristotle has become somewhat infamous for caring more about ideas than evidence. For example, Aristotle believed that men have more teeth than women. (They don't.) Lambasting Aristotle, Bertrand Russell [writes](#): "although he was twice married, it never occurred to him to verify this statement by examining his wives' mouths."

scientists, the word ‘evolved’ means ‘encoded in genes’. Henrich, however, is certain that there’s nothing genetic about WEIRD psychology. It is a product of cultural evolution.

Backing this claim, Henrich notes that WEIRD people tend to be highly literate. But since people from all cultures can learn to read (given sufficient opportunity), literacy cannot be genetic. Bolstering this reasoning, evidence suggests that learning to read alters both our brains and our psychology. Compared to people who cannot read, literate populations tend to have thicker [corpus callosa](#) and (oddly) worse facial recognition.²

So if not genetics, then what explains WEIRD psychology? Is it a byproduct of industrialization? Or maybe a consequence of the [Enlightenment](#)? Henrich thinks not. Instead, he argues that the seeds of Western psychology were planted more than a millennia ago, largely by accident. What happened is that Europeans got obsessed with incest.

Incest taboos

The idea that Western psychology was caused by incest taboos seems outlandish. Yet once Henrich works through the evidence, the hypothesis seems plausible. That’s because incest taboos cut to the core of kin relations. And kin relations cut to the core of human organization.

So let’s talk about bans on incest.

To most people, the notion of incest elicits a strong ethical reaction. Incest is *wrong*. But why do we feel this way? The (seemingly) obvious answer is that it’s instinctive. We know that incest is damaging to sexual reproduction. Therefore, sexually reproducing organisms (like humans) will evolve instincts to avoid it.³

²It seems that when you learn to read, you co-opt the left side of your brain for interpreting symbols, pushing facial recognition to the right side. For many years, scientists assumed that this was ‘natural’ — that all humans recognized faces using the brain’s right hemisphere. It turns out that this pattern is unique to people who are literate. Illiterate populations tend to interpret faces using both sides of the brain. And with more ‘brain power’ devoted to the task, illiterate people are better at facial recognition.

³The most common tool for avoiding incest seems to be sexual dispersal. When an animal matures, one (or both) of the sexes moves to new territory. Because most animals use dispersal, they do not evolve more complicated forms of incest avoidance (such as kin detection). As a result, many species [will mate with close relatives](#) when given the chance in captivity.

Although it seems plausible that human incest taboos are instinctive, this claim runs into two major problems. First, incest taboos vary greatly between cultures. Second, these taboos often ban relationships that have nothing to do with biological incest. For example, Woody Allen was widely criticized when he [married his adopted daughter](#). (Doing so clearly violated Western norms.) And yet the relationship was not ‘incestuous’ in any biological sense. So it seems that like most human behaviors, incest taboos are the joint product of genes and culture. Whatever incest-avoiding instinct we might have, culture can ramp it up or down.

So incest taboos are cultural. Fine. But why should we care about them? While these taboos are certainly titillating (especially if they are drastically different than our own), it’s hard to see why they are of scientific interest. And yet Henrich puts these taboos at the center of his work. That seems odd ... but it is actually quite clever.

To understand why incest taboos are important to the study of cultural evolution, consider the following question: why do royal families tend to inbreed?⁴ One possibility is that marrying close relatives is some sort of royal fetish. But if so, why is royal inbreeding so common throughout history? A more plausible explanation is that the social structure of royalty somehow *demand*s incestuous marriage.

To make sense of this possibility, note that marriage is about more than just sex. Marriage is an institution that cements bonds between families. And when it comes to royalty, these family ties are key. To be ‘royal’ is to be part of an extended lineage that traces bloodlines back to a common noble ancestor. Now, a key feature of bloodlines is that they tend to dilute with each generation. And this dilution, in turn, threatens the integrity of the clan. To combat this problem, kin-based groups often rely on marriage between relatives as a way to reinforce the lineage. Hence the tendency for royals (the quintessential kin group) to inbreed.

Today, this royal tendency seems like a quirk. But it is actually a remnant of the past. In Western society, royals are the last vestiges of a social structure called ‘intensive kinship’, in which groups are organized around blood ties. This social structure, Henrich argues, once dominated Europe. In fact, it likely dominated most civilizations. So if you think that marrying your cousin

⁴The Habsburgs are perhaps the most notorious example of royal inbreeding. From 1450 to 1750, the family became so inbred that it suffered from [excessive child mortality](#) and developed a number of deformities, including the famous [Habsburg jaw](#).

is odd, it's because *you* come from a weird new culture that rejects kin-based organization. The goal of Henrich's book is to explain how this WEIRD culture evolved.

Human history in three acts

After introducing the reader to WEIRD psychology, Henrich attempts to reconstruct the evolution of Western society, starting with the big picture. According to Henrich, human history has three acts. In Act I, humans lived as hunter gatherers. In Act II, we started to farm. And in Act III, we built a global industrial civilization.

Each of these acts, Henrich argues, came with a distinct form of social organization. Hunter gathers built their (small) groups around loose networks of kin — a social structure the Henrich calls 'extensive kinship'. With agriculture, humans started to build tight-knit clans based around bloodlines — a form of organization that Henrich calls 'intensive' kinship. And with industrialization, humans built massive groups based on 'voluntary' (non-kin) organization.

Let's take a tour though each act.

Act I: Extensive kinship

Henrich's discussion of extensive kinship is brief, and is designed mostly to highlight what extensive kinship is *not*. It is not intensive kinship. And it is not large-scale, voluntary organization.

Basically, Henrich thinks that early human groups organized using informal kin networks that served mostly as safety nets. So if your hunt failed, for example, you could get food from your neighboring kin. In other words, kin were people you could trust, but not people you could command. As I see it, that's the defining difference between 'extensive' and 'intensive' kinship. When agrarian societies started to build tight-knit extended lineages, the effect was to create a hierarchy. The patriarch could tell the rest of the family what to do. In 'extensive' kinships, however, there was no chain of command.⁵

⁵The anthropologist [Christopher Boehm](#) argued that hunter gathers maintain equality by practicing 'reverse dominance': the weak enforce egalitarianism by ganging up on would-be strongmen. A criticism of Boehm's claim is that some foraging societies (like those in the Pacific Northwest) organized in despotic hierarchies. This evidence is then taken as a refutation of the agriculture = hierarchy hypothesis.

The difference between extensive and intensive kinship, Henrich argues, is evident in differing incest taboos. Similar to WEIRD people, foraging societies organized using extensive kinship tend to have fairly expansive incest taboos. For example, the Ju/'hoansi peoples ban marriage between third cousins (and closer). Other foraging groups like the Wathaurung, organize in 'clans', and then *ban* intermarriage within a clan. (Many agrarian groups encourage marriage within the extended clan.) The effect of these expansive taboos, Henrich claims, is to suppress the formation of lineages.

So in terms of their marriage norms, early humans were likely similar to modern, Western societies. And yet Westerners organize into groups that are thousands of times larger than their ancient counterparts. How?

The answer, Henrich claims, is that Western societies have developed a suite of institutions that enable large-scale voluntary organization. For example, a WEIRD person would think nothing of driving to a neighboring city and ordering a coffee from a stranger. While seemingly banal, such behavior is quite odd. Throughout most of human history, approaching strangers uninvited meant risking death. Today, members of industrialized societies take for granted the host of norms and laws that enable interactions between strangers. However, early humans had no such norms, and so interaction between groups was dominated by violence.

If Henrich is correct, human prehistory was spent in small egalitarian bands that were connected by blood ties, but not bound by them.

Then everything changed.

Act II: 'Scaling up' with intensive kinship

In Act II of human history, groups began to organize on progressively larger scales. This shift clearly had something to do with the emergence of agriculture. However, Henrich is more concerned with the changing social structure that came with it. As groups got larger, they abandoned the loose bonds of extensive kinship and adopted a tighter network built on 'intensive' kinship.

I think this controversy can be resolved by taking the focus away from agriculture and instead putting it on *energy*. My own research suggests that it is the scale of energy consumption (not the specific way that this energy is harvest) that [predicts hierarchy](#). So what makes agriculture important is that it generally comes with the ability to harvest more energy. But that is not always true. In the case of Pacific foragers, they tapped into the concentrated energy of local salmon runs. In other words, their energy consumption was probably greater than that of most hunter gatherers. And so they formed larger hierarchies.

To frame this change, we need to think about how and why some groups are able to organize on large scales, while others cannot. Perhaps the best way to understand this issue is to look at the history of European colonialism. When Europeans took over the world, their favorite technique was to ‘[divide and conquer](#)’. The idea is that to suppress resistance to colonial rule, you play local groups against each other. I have always been fascinated that this tactic worked. More generally, the fact that colonialism *ever* works seems a mystery.

Colonialism has a huge math problem: in most circumstances, the local population vastly outnumbers the invaders. Given this disadvantage, you’d think that the conquerors would consistently get massacred. True, anti-colonial victories did happen. (In North America, the most famous example is likely the [Battle of Little Bighorn](#), where the U.S. military was slaughtered by a unified group of Lakota Sioux, Northern Cheyenne, and Arapaho tribes.) Still, such reverse victories were rare. Why?

A common answer is that Europeans had better weapons. (‘[Guns, germs and steel](#)’, as Jared Diamond put it.) While surely true, this explanation is not the whole story. When anthropologists began to study the peoples that Europe had previously conquered, they noticed that local groups also played the colonial game (on a smaller scale). An invading group would conquer or displace neighboring tribes, despite being outnumbered (in total). Here, the technological playing field was level. And yet the neighboring groups didn’t unify to repel their invaders.⁶ Again, why?

A plausible explanation is that these small groups did not unify because they lacked the *culture* to do so. In other words, there is nothing ‘natural’ about large-scale organization. It does not happen automatically in the face of danger. Instead, large-scale organization requires a suite of cultural tools that take time to develop. So if a population of paleolithic people were suddenly threatened by the US military, they would not (and likely could not) mirror its command structure. And that is why colonialism ‘works’.

⁶In his book [Darwin’s Cathedral](#), David Sloan Wilson discusses the example of the Nuer people of present-day Sudan, who spread at the expense of the neighboring Dinka. The difference between the two groups seems to have been mostly cultural. Similarly, Henrich highlights the example of Ilahita, an agrarian community in the Sepik region of New Guinea. Despite having similar technology as its neighbors, Ilahita was far larger than neighboring village. Why? Again, because of culture. Both the Nuer and the Ilahita had started to organize using what Henrich calls ‘intensive kinship’.

Looking at the cultural tools used by Western groups — things like money, property rights, laws, regulations, contracts, etc. — it is tempting to see them as the ‘normal’ way of organizing large groups. But these tools are fairly recent inventions. Long before they existed, societies ‘scaled up’ using a different technique: they ritualized kinship.

The idea is that the easiest route to social scale is not the laws and regulations that today enable ‘voluntary’ organization. The simpler path is to take humanity’s innate kin bias and ramp it up. Here’s how you do it. You track bloodlines back to a revered ancestor. You invent gods who oversee the extended lineage. You create rites of passage that give age cohorts a shared identity. You sanctify obligations between clans. You revere family ties. And so on. The effect of this ritualization is to solidify the extended lineage, allowing kin-groups to scale up.

By ritualizing blood ties, however, you also create problems. You set the stage for rule by birthright, and the despotism that goes with it.

Given this problem, why didn’t humans take the more ‘rational’ approach: skip divine kingship and go straight to representative democracy? The likely answer is that this ‘shortcut’ was not an option. Cultural evolution does not invent new designs from scratch. Instead, it builds on what exists. And what existed, when human societies first started to scale up, was an innate bias towards kin — a feature of our [primate heritage](#). Cultural evolution took this bias and went to town. The result was that intensive kinship conquered the world.⁷

The limits of intensive kinship

Had Henrich been writing 3000 years ago, the story would essentially end here. During the [Neolithic era](#), humans began to organize using intensive kinship, and this form of organization spread everywhere. *Finis*.

⁷Henrich notes that in many societies, kin bias is considered ‘family loyalty’. In WEIRD societies, however, it is called ‘nepotism’ — a word that has a negative connotation. Interestingly, the word ‘nepotism’ [traces](#) to the Catholic Church. It derives from the Latin *nepotem*, meaning ‘nephew’, and describes the practice of granting privileges to a pope’s ‘nephew’, which was a euphemism for his natural son.

Of course, we know that the story does not end there. Today, we have organizations like Walmart and the US government — institutions that dwarf most previous human groups and yet are *not* built on kinship. Where did these ‘voluntary’ organizations come from? And why did they eventually replace intensive kinship as the dominant mode of organization?

A plausible answer is that intensive kinship comes with inherent limits, which non-kin organization managed to sidestep.

To understand these limits, we must first understand what intensive kinship does. In simple terms, it takes the nested structure of an extended lineage and turns it into a *hierarchy*. Figure 1 illustrates. When you trace bloodlines (indicated by straight lines), you inevitably get a family tree that has a nested structure: one founding ancestor gives rise to a tree of descendants. Intensive kinship takes this tree structure and uses it to create power relations. Within the clan, status depends on proximity to the ‘maximal lineage’ (the founding ancestor). By ritualizing bloodlines, intensive kinship unifies sub-groups who might otherwise be enemies.

When this ritualization of kin structure first emerged, the hierarchical bonds were likely loose. However, we know from history that these bonds eventually tightened into a strict chain of command. The result was kin-based dictatorships (i.e. monarchies).

Here we arrive at the problems with intensive kinship: it sets societies on the path to rule by birthright, which is not the nicest of institutions. Rule by birthright leads to things like divine kingship, a permanent aristocracy, and born servitude. In short, kin-based hierarchies tend to entrench inequality, which breeds resentment and instability.

Another problem with kin-based hierarchies is that blood ties are a poor way of choosing successors. Every generation, you roll the dice to see if the ruler will produce a ‘legitimate’ heir. If the ruler is infertile (or produces heirs out of wedlock or of the wrong sex) you end up with conflict. This issue of succession is no small matter, as Figure 2 illustrates. From 1648 to 1713, roughly one third of all interstate wars were fought (at least in part) over succession. Fortunately this fraction decreased over the following centuries, as states abolished (or limited the power of) hereditary monarchs. But going back in time, it seems likely that succession was a major source of war.

Related to the issue of succession is the problem of polygyny — the tendency for elite males to hoard wives. While humans likely evolved as a mildly polygynous species (a fact we infer from [size differences between sexes](#)),

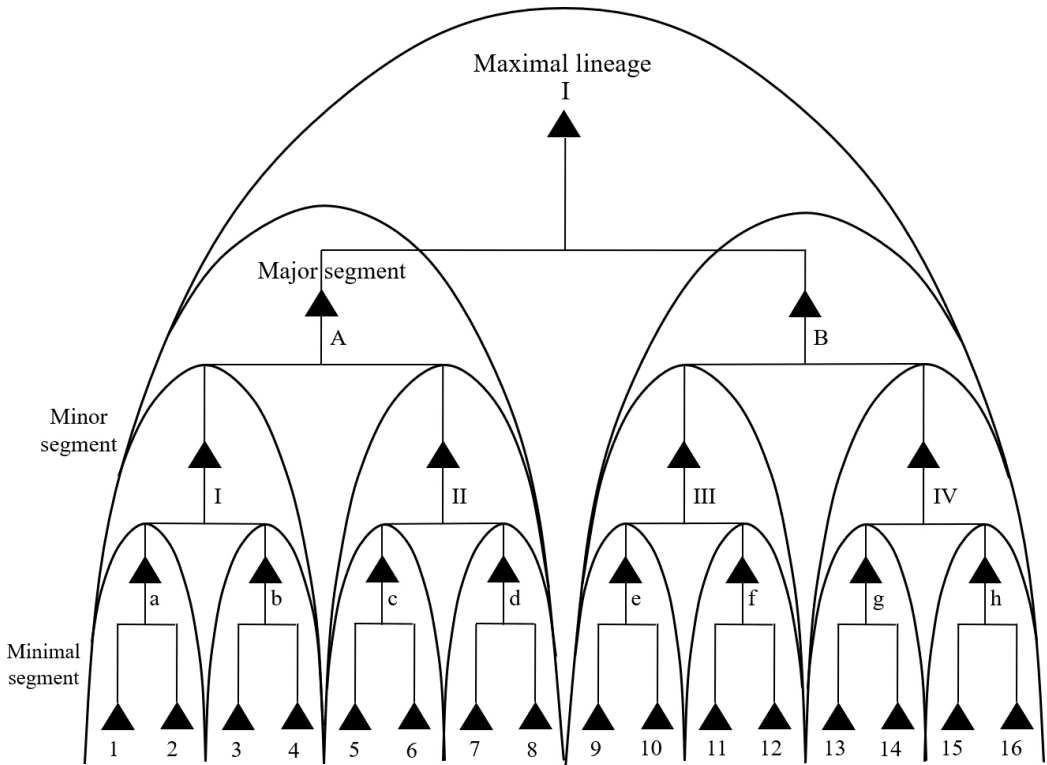


Figure 1: Using kinship to create a hierarchy

This figure shows Henrich’s illustration of a [segmentary lineage](#), a form of organization typical to intensive kinship. Segments of the population (curved lines) are organized hierarchically based on their lineage (straight lines).

rule by birthright pressures elite males to be *wildly* polygynous. The formula is simple: more wives brings a higher chance of producing an heir, provides a conspicuous way to display power, and serves as a tool for building political alliances.

The trouble is that this hoarding of wives forces low status males into bachelorhood. Figure 3 illustrates the problem. On the left, monogamy means that every male can have a partner (at least in theory). On the right, a moderate amount of polygamy means that a large portion of men become unwilling bachelors.

So what’s wrong with bachelors? Well, as a group, they tend to create conflict. That’s because in polygynous societies, a main avenue for winning wives is to challenge elite men. In other words, polygyny — and the induced pool of bachelors — intensifies male competition. Of course, there’s nothing inherently wrong with male competition. However, it does tend to undermine

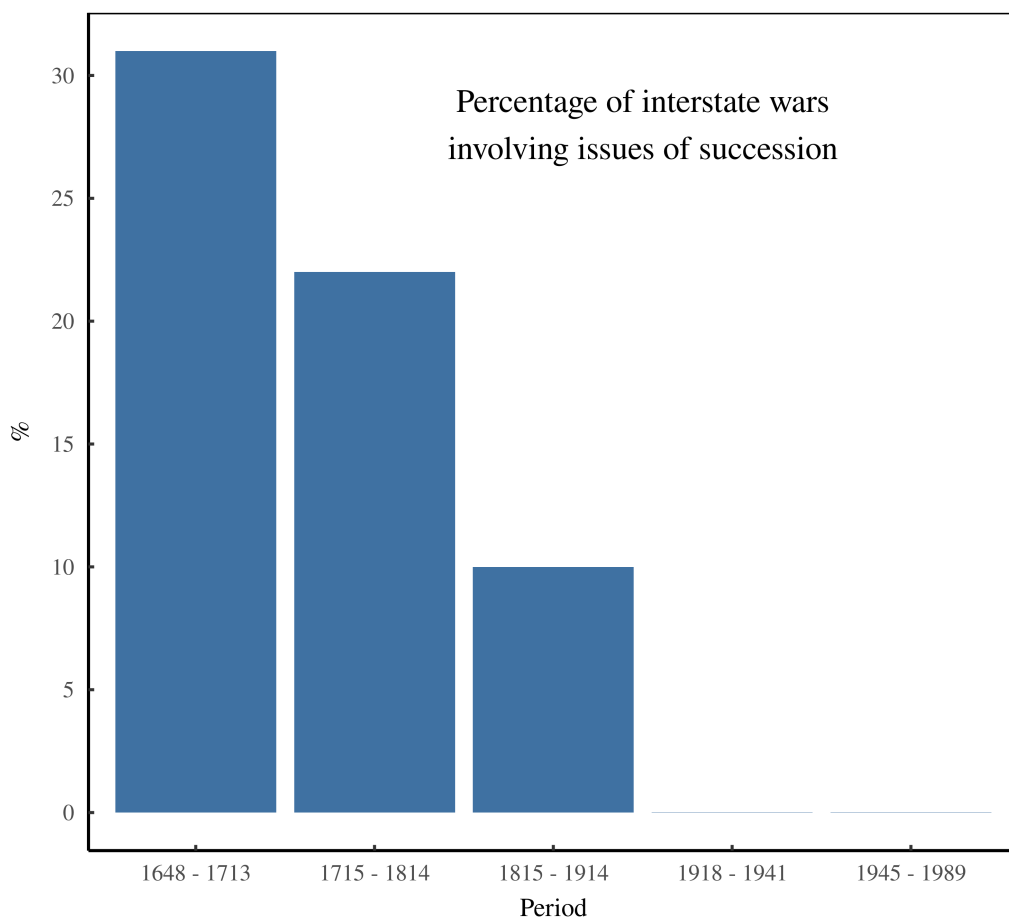


Figure 2: Wars of succession

This figure shows the fraction of interstate wars that involved issues of succession. The data is from Kalevi Holsti's book *Peace and war: Armed conflicts and international order, 1648-1989*.

group cohesion. Let's put it this way: when men are busy fighting over wives, what they are *not* doing is cooperating with each other.⁸ So if the goal is to foster a large, cohesive group, polygyny is a problem.

⁸Interestingly, Henrich cites experimental evidence to back up the claim that polygyny is bad for cooperation. A 2009 study by [Mehta, Wuehrmann, and Josephs](#) tested how testosterone levels affected performance during a competition. In one experiment, Mehta asked people to beat their partner's score on a standardized test. In another experiment, pairs of people were asked to *combine* their scores to beat other groups. It seems that individuals with high testosterone did better when competing against their partner. In contrast, people with low testosterone fared better when competing as a group. In other words, testosterone heightens competition *within* groups — the opposite of what you need to form a cohesive society. How does this evidence relate to polygyny? Well, polygyny leads to more bachelors, and bachelors tend to have high testosterone. And so do polygynous men.

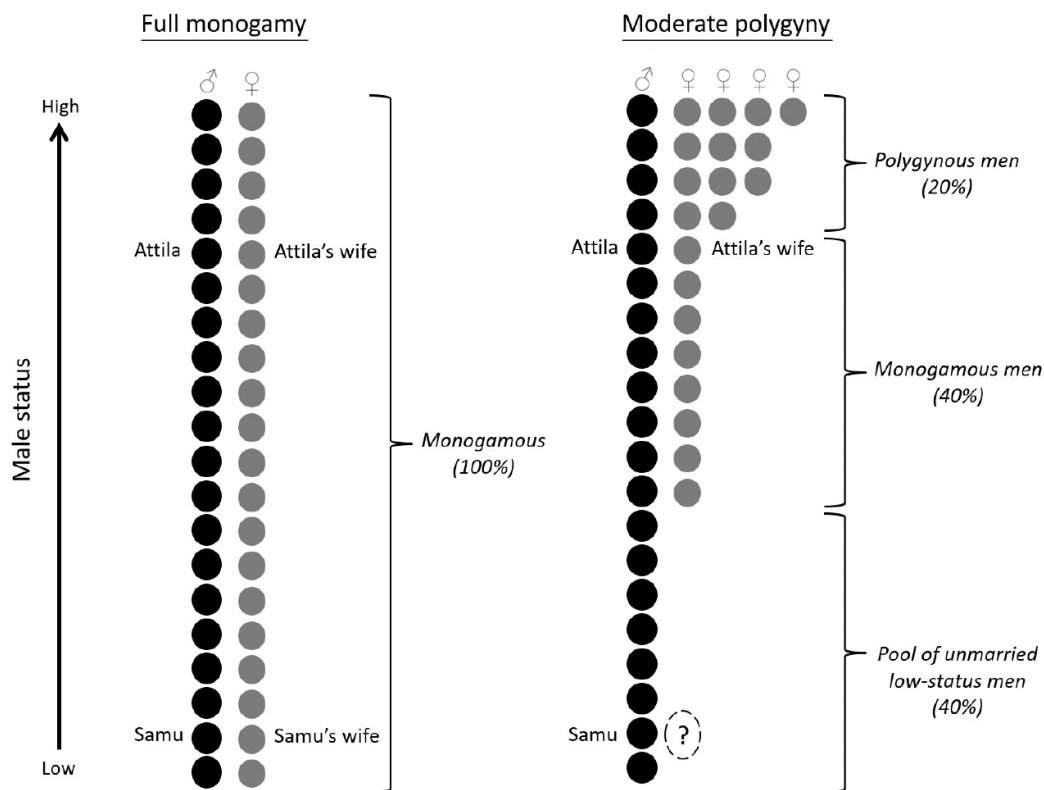


Figure 3: The problem with polygyny

This figure shows Henrich's illustration of 'polygyny's math problem'. On the left, monogamy means that every male finds a mate (at least in principle). On the right, a mild amount of polygyny means that a large portion of males become forced bachelors. This demographic shift leads to intense male conflict, which is corrosive to group cohesion.

Now, what you need to know about polygyny is that in many agrarian (kin-based) societies, it reached *outrageous* levels. To give you some numbers, historians claim that ancient Chinese emperors had [thousands of women in their harems](#). (The Chinese emperor Yangdi reportedly had 100,000 women in his palace.) These numbers are so large that they defy belief. And yet genetic evidence supports the fact that ancient rulers were wildly polygynous. For example, DNA analysis indicates that roughly 8% of men currently living in the former Mongolian empire are [descendants of Genghis Khan](#).

Going back further, DNA evidence suggests that the Neolithic revolution came with an explosion in polygyny. Geneticist Monika Karmin and colleagues have found that starting around 10,000 years ago, there was [massive bottleneck in the Y chromosome](#) (the gene passed on by males). For some reason, the number of reproductive males plummeted, but the female population didn't

change. The likely cause was intense male competition, combined with runaway polygyny. As Genghis Khan would later put it, the strategy was to kill your enemies and steal their wives.⁹ Of course, this approach worked well for men like Khan. But it's not the best way to build stable institutions.

In short, we know that intensive kinship can create fairly large groups. But it also comes with a host of problems that make kin-based organizations unstable.

Act III: Dismantling kinship lock in

The limits to kin-based organization are an example of the 'lock-in effect', whereby past decisions constrain the future. In Act III of human history, Henrich argues that Europeans sidestepped kinship lock in by dismantling their kin-based institutions. Over a period of about 1000 years, Europeans rebuilt their society using 'voluntary' organization.

At first, this restructuring might seem like an improbable turn of events. However, a look at the wider evolutionary landscape shows that nature is full of unlikely solutions to adaptive lock in.

Here's an example. You might think that the largest sea animal would be a fish. After all, fish have been in the ocean for 500 million years, so they've had lots of time to grow large. And yet this reasonable expectation is wrong. The largest sea animal took a wildly improbable path to bigness. It started as a fish, moved onto land, evolved lungs, and then, 50 million years ago, moved back into the water. I'm talking, of course, about *whales* — air-breathing mammals that dwarf all other ocean life. (The blue whale is the largest animal alive, and also the largest animal ever to have lived.)

The story of whales makes little sense until you think about the limits faced by fish. As animals with gills, fish are locked into 'breathing' water, which is a poor source of oxygen. So as fish grow bigger, their gills struggle to keep up. Whales, however, can breathe air, which is a rich source of oxygen.

⁹Here's how Genghis Khan framed his life goals:

The greatest happiness is to vanquish your enemies, to chase them before you, to rob them of their wealth, to see those dear to them bathed in tears, to clasp to your bosom their wives and daughters.

While rulers frequently embellish, Khan seems to have been telling the truth.

So by moving onto land and then back into water, whales sidestepped an evolutionary lock in.¹⁰ (For a broader discussion of evolutionary lock in, see my post [The Evolution of 'Big': How Sociality Made Life Larger.](#))

Back to humans. If an ancient historian was asked to predict the largest institutions of the 21st century, they'd likely describe something that resembles a scaled-up mafia family. (This is a good description of royalty.) What the ancient historian would *not* predict is Walmart — a giant organization built on voluntary membership. The jump from mafia clans to Walmart is the social equivalent of the jump from fish to whales. It seems (and perhaps is) wildly improbable. Yet it happened. And so the task is to understand how and why.

The Church finds a weird obsession

For Henrich, the story of groups like Walmart begins long before most historians look for the origins of capitalism. Henrich takes us back to the fourth century, to a time when European culture headed in an odd direction.¹¹

¹⁰In the ocean, oxygen dissolves at around 10 parts per million. In the air, oxygen exists at about 200,000 parts per million. So per particle, air contains about 20,000 times more oxygen. The atmosphere, however, is about 100 times less dense than the ocean. So per unit of volume, air has about 20 times more oxygen. Still, that's a considerable advantage for air-breathing animals like whales.

¹¹Origin stories tend to depend on how we understand the present. Hence, debates about the origins of capitalism turn largely on different theories of present-day capitalism.

Mainstream economists tend to see capitalism as a market system, and so (when they bother to study history) trace the development of monetary exchange. Marxists (like [Robert Brenner](#)) focus on the exploitation of workers, and so study the spread of wage labor. [Max Weber](#) thought capitalism was characterized by a ritualization of work, and so traced its origin to the Protestant Reformation. World-systems theorists like [Immanuel Wallerstein](#) and [Andre Gunder Frank](#) focus on core-periphery dynamics, and so study the history of international trade. More recently, [Jonathan Nitzan and Shimshon Bichler](#) see capitalism as a 'mode of power', and trace its origins to the 12th-century development of the European 'bourg'.

While dates vary, most of these approaches trace the seeds of capitalism back to the late Middle Ages. Henrich, in contrast, starts much earlier because he is focused on kinship. Henrich argues that by the late Middle Ages, Western Europe had already dismantled most of its kin-based institutions. Unlike in other clan-based societies, polygyny was becoming rare in Western Europe (although the male aristocracy still hoarded wives). Perhaps more importantly, sons were not bound to reside in their father's 'house', as was the norm in patriarchal clans. Instead, male peasants could marry and take up new residence away from their fathers (and in-laws). This break-up of intensive kinship, Henrich proposes, began in the fourth century, and took about a thousand years to complete. It did not guarantee the emergence of capitalism, but laid the preconditions for non-kin organization.

If Henrich is correct, the seeds of Western society were first planted in 305 CE. Let's set the stage. At the time, the Catholic Church was spreading throughout Europe, and its followers were getting obsessed with incest. We don't know why this obsession started. But we do know that it lasted for over a millennia, and that it likely transformed European society.

The Church's 'marriage and family program', as Henrich calls it, got rolling in the year 305 when a [synod \(council\) in Elvira](#), Spain, issued a strange decree. If a man marries the sister of his dead wife, the council ordered, he must abstain from communion for five years. And if a man marries his daughter-in-law, he should abstain from communion until near death. Although these policies were ostensibly about 'communion', their effect was to ban what anthropologists call 'affinal' marriage — marriage to your in-laws. The Church evidently thought such relationships were 'incestuous' (although, in biological terms, they are not). And so it sought to prohibit them.

What is important about this prohibition, Henrich argues, is that it removed a key tool for unifying the clan. When a spouse dies, affinal marriage helps keep the extended lineage together. Of course, one decree from one council does not transform a whole society. So what matters is that the Elvira decree was the first of *many* official doctrines that would be issued by the Church over the next 1000 years. By the 13th century, the Church had banned the following:

1. Marriage to relatives out to sixth cousins;
2. Polygamous marriage;
3. Affinal (in-law) marriage;
4. Arranged marriages;
5. Adoption.

These prohibitions, Henrich argues, removed the key building blocks of intensive kinship. And so from the fourth century onward, the clans of Europe slowly died out, leading to a society built on non-kin organization.¹²

¹²Naturally, one wonders if the Church knew what it was doing when it started its 'marriage and family program'. The answer seems to be both yes and no. Over time, the Church clearly figured out that it benefited from breaking up clans. Catholic priests, Henrich notes, were able to convince many rich patriarchs to donate some (or all) of their estate to the Church— a behavior that would have been unthinkable had these patriarchs been focused solely on maintaining their lineage. So yes, the Church understood that it benefited from killing off intensive kinship.

Church exposure, cousin marriage, and WEIRD psychology

If you are skeptical of Henrich's thesis, you are in good company. When I first encountered his arguments about incest, I found them implausible. But after thinking about Henrich's thesis — and the evidence underlying it — I now find it compelling.

Speaking of evidence, it seems unlikely that we can connect one-thousand-year-old church policies to the culture and psychology of modern Europeans. And yet we can. In a landmark [2019 study](#), Jonathan Schulz and colleagues made the connection. Here's how they did it.

First, Schulz and colleagues looked at how long the Western Catholic Church had been present in different regions in Europe. (Only the Western Church got obsessed with banning incest.) Next, they looked at modern rates of cousin marriage in the same regions. When they put these two pieces of data together, they found a surprising connection: the longer the region's exposure to the Church, the *lower* the rate of cousin marriage. Figure 4 shows the trend.

Now, it's tempting to dismiss the rate of cousin marriage as a cultural quirk. But for Schulz (and Henrich), it is a key indicator of social structure. Remember that cousin marriage is one of the main ways to consolidate an extended lineage. So when you reduce the rate of cousin marriage, it signals that intensive kinship is dying off. Therefore, the evidence in Figure 4 is consistent with Henrich's thesis that the Catholic Church's marriage policies killed off Europe's clans.

So we've connected Church exposure to rates of cousin marriage. That's step 1. Step 2 is to connect the cousin marriage rate to variation in psychology. Looking at the same regions in Europe, Schulz and colleagues again found strong correlations. As cousin marriage rates decline, people become:

1. Less conformist;
2. More inclined to be fair to strangers;

However, the Church likely had no idea that it was rewriting European culture at large. In that sense, the Church's 'marriage and family program' is similar to the peacock's 'big shiny tail program'. Like the Church, peacocks unwittingly played a game of evolution. For unknown reasons, female peacocks developed a preference for males with big shiny tails. That led males to evolve tails that were even bigger and shinier. None of the animals had any idea what they were doing. And yet evolution did its work anyway, culminating in the male peacock's preposterously large tail. The Church's incest obsession was probably similar. Like most human groups, the Church was oblivious to the long-term effects of its own culture.

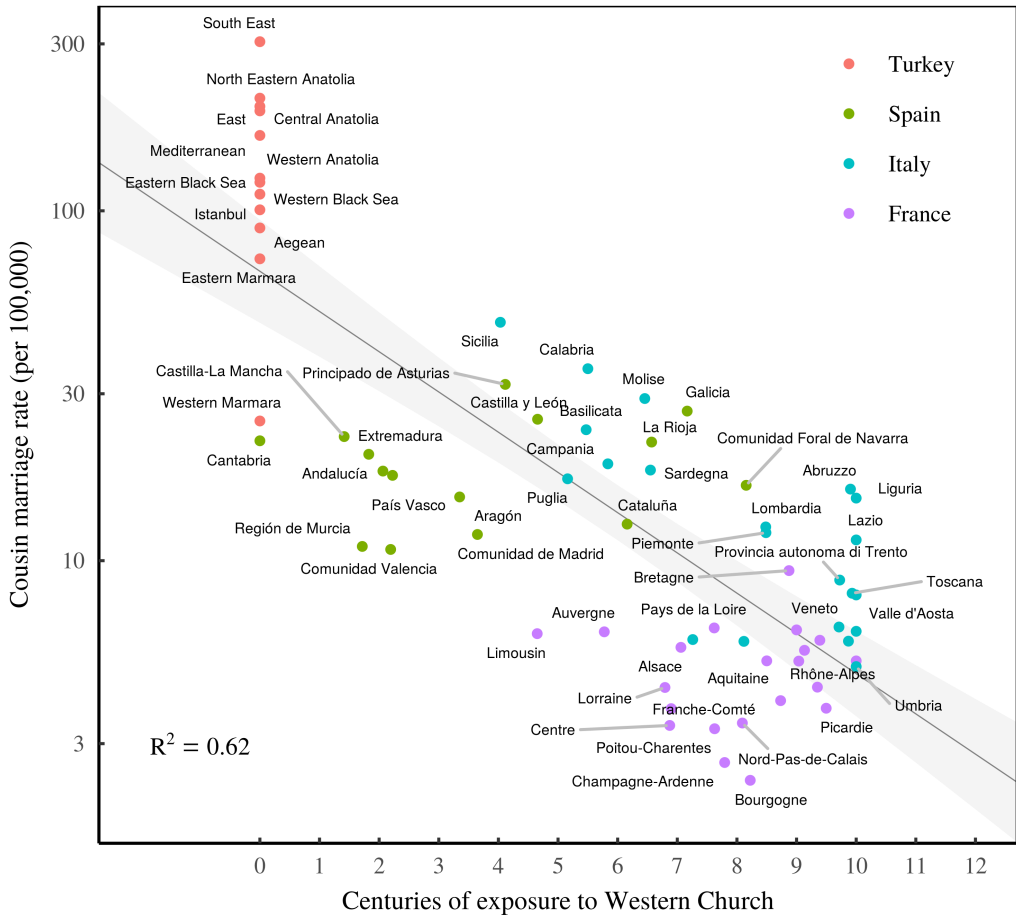


Figure 4: In regions of Europe, cousin marriage rates decline with longer exposure to the Western Church

Each point represents a region in Turkey, Spain, Italy or France. The vertical axis shows the rate of first cousin marriage. The horizontal axis shows the number of centuries that the region has been exposed to the Western Church (based on whether there was an active bishopric within 50 km). The data is from Jonathan Schulz and colleague's paper [‘The Church, intensive kinship, and global psychological variation’](#). Their dataset is available [here](#).

3. More trusting of strangers;
4. More individualist.

Figure 5 shows the trends. Each panel shows a different psychological metric, plotted against the rate of cousin marriage.

Similar trends appear between Italian provinces, as shown in Figure 6. In provinces with lower rates of cousin marriage, people store less of their wealth in cash, and are more likely to use checks. Both behaviors, Henrich

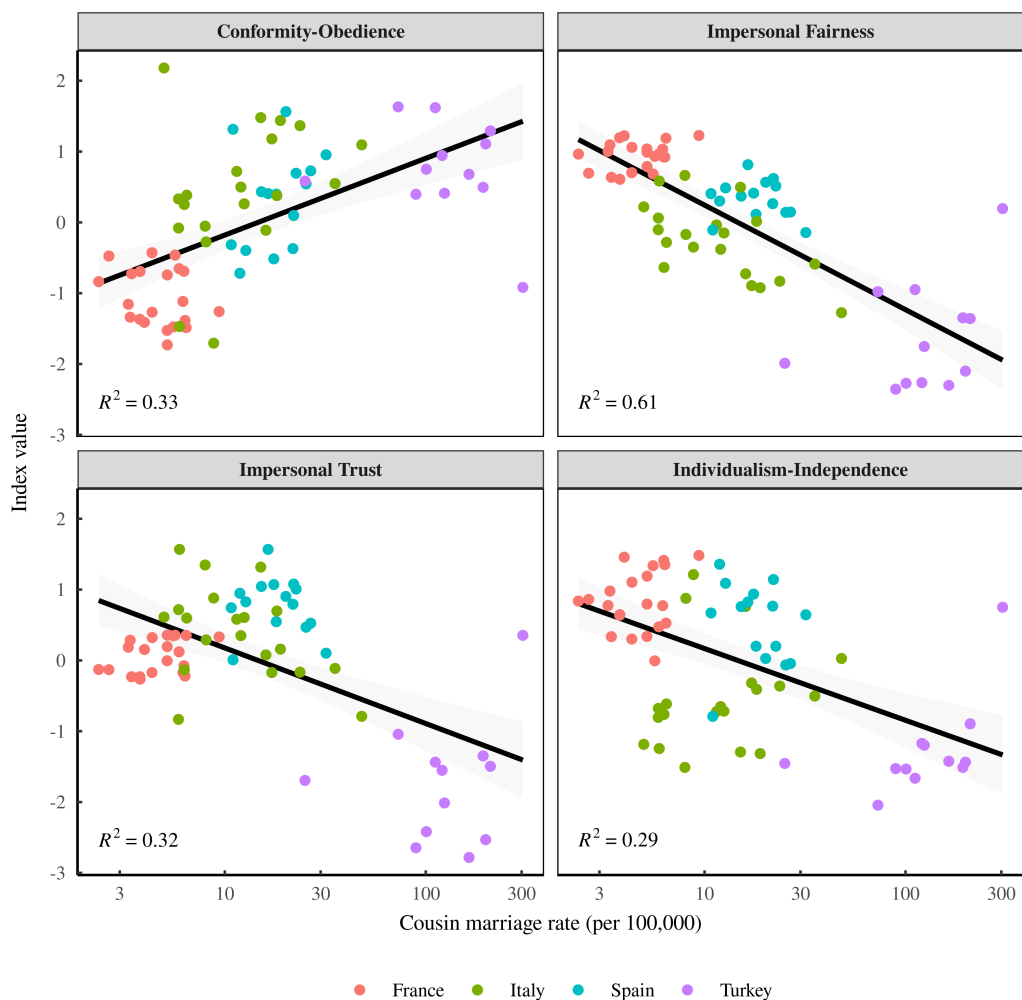


Figure 5: In regions of Europe, psychological traits vary with the rate of cousin marriage

Each point represents a region in Turkey, Spain, Italy or France. In each panel, the vertical axis shows the average value of the given psychological index within a region. The horizontal axis shows the rate of first cousin marriage. The data is from Jonathan Schulz and colleague's paper 'The Church, intensive kinship, and global psychological variation'. Their dataset is available [here](#).

argues, signal that as cousin marriage rates decline, people become more trusting of strangers and put more faith in impersonal institutions (i.e. banks). In other words, killing off intensive kinship enlarges people's circle of trust.



Figure 6: In provinces of Italy, measures of financial trust vary with the rate of cousin marriage

Each point represents a province in Italy. The left panel shows how the percentage of financial wealth held in cash varies with the rate of cousin marriage. The right panel compares cousin marriage rates to percentage of people who use checks. The data is from Jonathan Schulz and colleague's paper [‘The Church, intensive kinship, and global psychological variation’](#). Their dataset is available [here](#).

In short, there is solid evidence connecting the spread of the Catholic Church to the death of intensive kinship and the rise of WEIRD psychology. What needs to be fleshed out is how this evidence relates to the institutions of modern capitalism.

From WEIRD psychology to Western culture

In the last third of his book, Henrich tries to connect WEIRD psychology to the ‘scaling up’ of Western society via industrial capitalism. I think he is partially successful. I say ‘partially’ because there is a disconnect between how Henrich defines ‘scaling up’ in the first third of the book and the last third. I’ll discuss this problem in a moment. But first, let’s focus on what, in my opinion, Henrich gets right.

One of the key features of WEIRD psychology is that it is ‘impersonally prosocial’. That’s a scientific way of saying that Westerners tend to trust strangers and treat them (almost) as fairly as they would treat friends and family. This impersonal prosocial stance, Henrich argues, is one of the hallmarks of commerce.¹³

Wait, is Henrich saying that markets encourage fairness? Yes ... but only *impersonal* fairness. You see, while many non-market societies are famed for their generosity, their circle of fairness rarely extends to complete strangers (who are often feared). Markets, however, facilitate interactions between strangers. And they do it by instilling social norms (and laws) that encourage fair exchange. The result, Henrich argues, is that market exposure leads to increased impersonal fairness.

The evidence backs him up. In 2010, Henrich conducted a [study](#) in which individuals from different cultures were asked to split a sum of money with a stranger. Henrich found that people from more market-integrated societies tended to offer a more generous split. This evidence supports the idea that impersonal prosociality goes hand in hand with markets.

Henrich also argues that markets are a way to *domesticate* competition. The idea (which I’ve also [explored](#)) is that humans don’t need an incentive to compete with each other. Instead, we need cultural tools to suppress violent competition. Henrich agrees with [Peter Turchin](#), who argues that the default human state was incessant warfare between tribes.

Markets take the violence out of competition. To compete with another group in a market setting, you must obey the laws of property rights. In other words, you cannot steal and you cannot conquer. True, market competition still leads to all kinds of dodgy behavior. (Wall Street comes to mind.) But compared to the ravenous predation of rulers like Genghis Kahn, capitalist tycoons

¹³Fun fact: changing norms about fairness are evident in the Bible. In the Old Testament, which is famous for its tribal mentality, the ‘golden rule’ applies only to kin:

You shall not take vengeance or bear a grudge against your kinsfolk. Love your neighbor as yourself.

(Leviticus 19:18)

When Mathew restated the golden rule in the (less tribal) New Testament, he dropped the kin bias:

Therefore whatever you desire for men to do to you, you shall also do to them; for this is the law and the prophets.

(Mathew 7:12)

are domesticated house cats. With the predators in check, Henrich argues that Western society kept the benefits of competition, but removed the most destructive elements.

Related to market norms is the WEIRD tendency to be ‘individualistic’. Henrich argues that this psychology arises from the needs of voluntary organization. When you break down kin bonds, people are ‘freed’ to associate with anyone they like. In a sense, this freedom is liberating. But it also leads to a self-centered worldview. It forces people to constantly broadcast their abilities in order to find friends and win gainful employment.

One of the paradoxes here is that Westerners adopted a more ‘individualistic’ psychology at the same time that their behavior become more ‘collectivist’. Urbanization is a prime example. Today, 9 million New Yorkers live and work in a dense urban jungle that is essentially a massive hive. And yet the majority of these people would probably claim to value autonomy and independence. How can this be? For his part, Henrich doesn’t see a contradiction. The dismantling of intensive kinship, he argues, meant people had to choose who to associate with. And that choice made people more individualistic, yet also more impersonally prosocial.

Another possibility worth exploring is that individualism is a kind of mind hack that simplifies the complex web of relationships that surround us. For example, when Karl Marx documented 19th-century capitalism in Britain, he complained that people focused on commodities, but forgot about the social relations that underpinned production. He called this stance ‘commodity fetishism’. Perhaps ‘individualism’ is a similar ‘fetish’: it causes people to take social relations and conceive of them as personal traits.

For instance, when I write my [resume](#), I tell myself that I am listing ‘personal traits’. And yet the evidence that I actually provide is mostly *relational*. I tell you about the schools where I have studied, the organizations where I have worked, the institutions that have given me awards, the journals that have published my work, the groups who have listened to my presentations, and so on. In short, I am telling you about my past social relationships, yet I am convinced these are personal accomplishments. It’s worth researching if/how this individualistic stance makes large numbers of relationships easier to maintain.

Back to Henrich’s story about Western culture. He argues that after dismantling intensive kinship and developing a WEIRD psychology, Europeans began to ‘scale up’ using voluntary organization. To support his argument,

Henrich documents the steady growth of merchant guilds, charter towns, universities, monastic orders and knowledge societies. As people aggregated in cities, they sought out like-minded individuals, leading to a network effect — a vast ‘collective brain’. Stoked by the fires of commerce, knowledge and innovation proliferated. The result, Henrich claims, is that Westerners became unprecedentedly rich.¹⁴

The death of ritualized power

As far as histories go, Henrich’s story about the rise of industrial capitalism is fairly standard. And it is based on well-known trends. Still, it leaves me with a feeling that something is missing.

Perhaps a good place to start is with Henrich’s own words. At the outset of his book, Henrich notes that people often misunderstand their own culture:

Institutions usually remain inscrutable to those operating within them — like water to fish. Because cultural evolution generally operates slowly, subtly, and outside conscious awareness, people rarely understand how or why their institutions work or even that they “do” anything. People’s explicit theories about their own institutions are generally post hoc and often wrong.

Let’s call this sentiment the ‘anthropological stance’. When studying a society, the anthropological stance means that you take what people say about their own culture with a grain of salt. You assume that people are like ‘fish’ who cannot see the institutional ‘water’ in which they swim.

So what is the water?

Well, a big part of it is ritualized power. The important thing about power is that when it is legitimized (via ritual), it becomes invisible to those who believe in the rituals. For example, if you asked a devout Catholic to describe the Pope, they might use words like ‘holy’ or ‘sacred’. What they would *not* say is ‘the Pope is a powerful ruler who use rituals to legitimize his authority’.

¹⁴You’ll note that Henrich’s story of the rise of the West doesn’t highlight imperialism. While he acknowledges the “very real and pervasive horrors of slavery, racism, plunder, and genocide”, Europe’s expansionism doesn’t feature in his main story. That’s a bit odd, given that the theory of cultural evolution focuses on competition between groups. It’s a bit like describing the changes that happened in imperial Rome without mentioning that they coincided (and likely depended on) Rome’s conquest of Europe and North Africa.

Of course, that is *exactly* how a heretic (like me) would describe the Pope. But to a Catholic, the Pope's power is hidden within a web of beliefs and rituals.

Back to Henrich. When he describes how societies scaled up using intensive kinship, he adopts the anthropological stance. He is clear that intensive kinship involved a large dose of ritualized power. For example, here is how he depicts the emergence of chiefdoms:

[B]oth anthropological and historical evidence suggest that the manipulation and accumulation of **ritual powers** and offices has been one of the main ways in which some clans have set themselves above others. . . . By providing a means to make and **enforce** community-level decisions, chiefdoms often have a substantial edge in competition with more egalitarian societies. . . . [They] often have enough **command** and **control** to unify large armies for military campaigns.

(power words highlighted)

For the moment, let's forget about whether this description is correct. What's clear is that this paragraph is *not* how people living in a chiefdom would describe their own society. (It seems far fetched that a chief would say: 'I manipulate and accumulate ritual powers.')

Now let's switch gears and look at how Henrich describes the institutions of capitalism. Here is Henrich discussing the psychological effects of markets:

Well-functioning impersonal **markets**, in which strangers **freely** engage in competitive **exchange**, demand what I call **market norms**. **Market** norms establish the standards for judging oneself and others in impersonal **transactions** and lead to the internalization of motivations for trust, fairness, and cooperation with strangers and anonymous others.

(market words highlighted)

Again, let's forget about whether this description is correct. Instead, let's ask ourselves if this paragraph is how a Westerner might describe their own culture. You can judge for yourself, but my impression is that when asked to describe capitalism, many people will pontificate about markets, freedom, and competitive exchange.

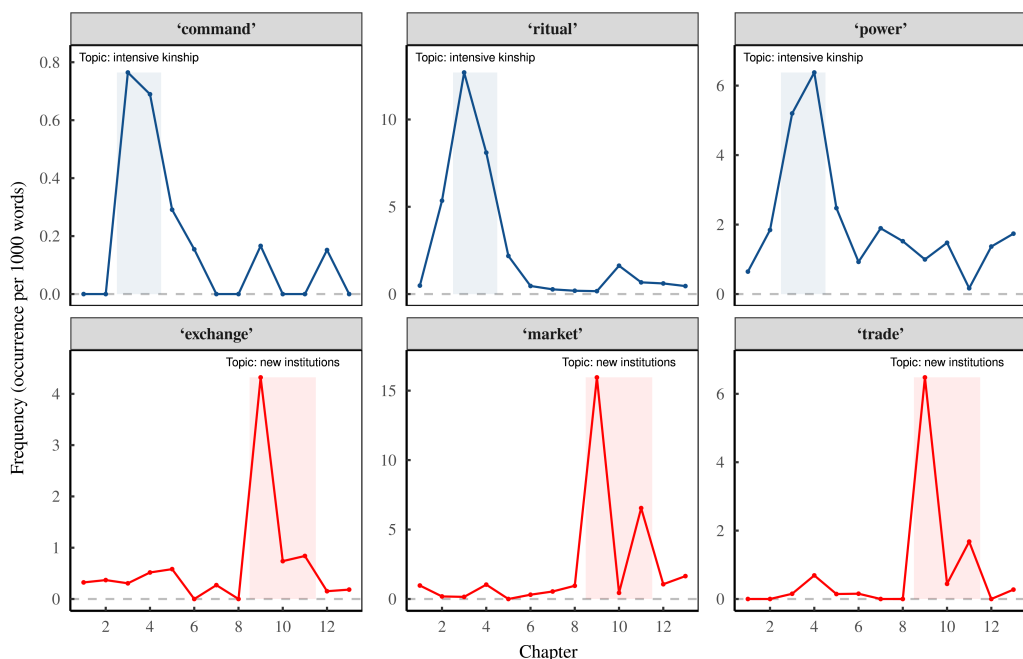


Figure 7: From ‘ritualized power’ to ‘market exchange’ — analyzing word frequency in Henrich’s book

This figure shows the frequency of six different words in Henrich’s book, broken down by their occurrence in each chapter. The words in the top row (‘command’, ‘ritual’ and ‘power’) are used most frequently in the chapters where Henrich discusses intensive kinship. The words in the bottom row (‘exchange’, ‘market’, and ‘trade’) are used most frequently in the chapters where Henrich describes the new institutions of Western society.

So in these two paragraphs, we have a change in tone. Intensive kinship involves ‘ritualized power’, while modern institutions involve ‘competitive exchange’. I think this tone change is problematic, because it implies that in capitalism, ritualized power has disappeared. (It has not.) But before I explain further, let me convince you that I’m not cherry picking Henrich’s words.

Figure 7 analyzes the frequency of six different words in Henrich’s book. Each panel, shows the relative frequency of the given word, measured by chapter. The shaded regions highlight the major topic of the book in two different sections. When Henrich discusses intensive kinship, the words ‘command’, ‘ritual’, and ‘power’ (top row) spike in frequency. When Henrich moves on to discuss the ‘new institutions’ of Western society, these words become more rare. Instead, talk of ‘exchange’, ‘market’ and ‘trade’ (bottom row) becomes more frequent.

Clearly, Henrich's language changes as he moves from discussing intensive kinship to the institutions of modern capitalism. Is this switch justified? In part, yes. It would be foolish to discuss the evolution of capitalism without describing the spread of commerce. But the problem is that by omission, Henrich implies that the rise of markets did away with ritualized power. I think that is misleading.

Inscrutable institutions

When we study capitalism, it is difficult to adopt the anthropological stance, because *we* are the 'fish' who are unable to see the institutional 'water'. Still, there are some tricks that can help us understand the ritualized power that surrounds us. The simplest option is to look for contradictions between what people say and what they do.

Let's use neoclassical economists as an example. Economists spend their days theorizing the efficacy of the 'free market'. And yet these same economists have tenured positions in large universities that are funded by still larger governments. In other words, economists' working lives have almost nothing to do with the market. The discrepancy between language and action is severe.

When you find this type of contradiction, it's a sure bet that you've found a ritual. In fact, future anthropologists might claim that economist use the idea of markets to 'manipulate and accumulate ritual powers'. This language, by the way, is how Henrich described the accumulation of chiefly power. I think it remains appropriate for describing capitalism.

Of course, you might disagree. And so what we really need to do is understand if concentrated power has actually gone away. Market ideology suggests that it has. The empirical evidence suggests that it has not.

To look at the evidence, consider the example of the United States. Today, the US is viewed as the quintessential free-market society. US citizens can buy what they want, work where they want, and live where they want. Two hundred years ago, however, things were different. At the time, the US South was the quintessential slave state, governed by ritualized, racist power. We all know what happened. Americans fought a civil war that ended slavery, setting African Americans on a century-long path to greater equality. Looking

at US history, it seems to fit with Henrich's story about the spread of voluntary organization. However, just because group membership is voluntary does not mean that ritualized power goes away.

Here's an example. Three years ago, I voluntarily joined Twitter. And yet a few weeks ago, Elon Musk bought Twitter, and so gained the power to censor me. How did he do it? By 'manipulating and accumulating ritual powers'. (How else do you describe the mysteries of [Musk's debt financing](#)?)

Speaking of Elon Musk, his Twitter purchase was possible because of his Tesla shares, which are wildly valuable. These shares are themselves a form of ritualized power, giving Musk control over the 100,000 people who work for Tesla. Looking at Musk's power over Tesla employees, we can say that it is less despotic than the power of a slave owner. And yet US slave owners rarely owned more than 1000 slaves. So the paradox is that in terms of the number of people he commands, Elon Musk is likely more powerful than any US slave owner ever was.

Now, Tesla is but one example of a giant corporation. There are many others. In fact, there are so many big corporations, that you can convincingly argue that the modern United States is far more hierarchical than the Antebellum South.

Figure 8 makes the case. Here I have contrasted the size distribution of modern US business firms with the size distribution of slave estates in the Antebellum South. What's important is that as we move from left to right, the blue line (business firms) extends far beyond the red line (slave estates). This difference indicates that modern corporations grow orders of magnitude larger than Antebellum slave estates.

Now, you might counter that US corporations are not actually hierarchies. However, if you've ever worked in a big company, you know that it has a chain of command. But aside from worldly experience, we can connect the growing size of corporations to other indicators of hierarchy, such as the [relative number of managers](#). You might also protest that the US is somehow exceptional. Perhaps in other countries, firms got smaller? Again, the evidence suggests not. Across all countries, it seems that industrialization tends to bring larger firms and larger governments. (For more details about this evidence, see '[Energy and institution size](#)' and '[Economic development and the death of the free market](#)'.)

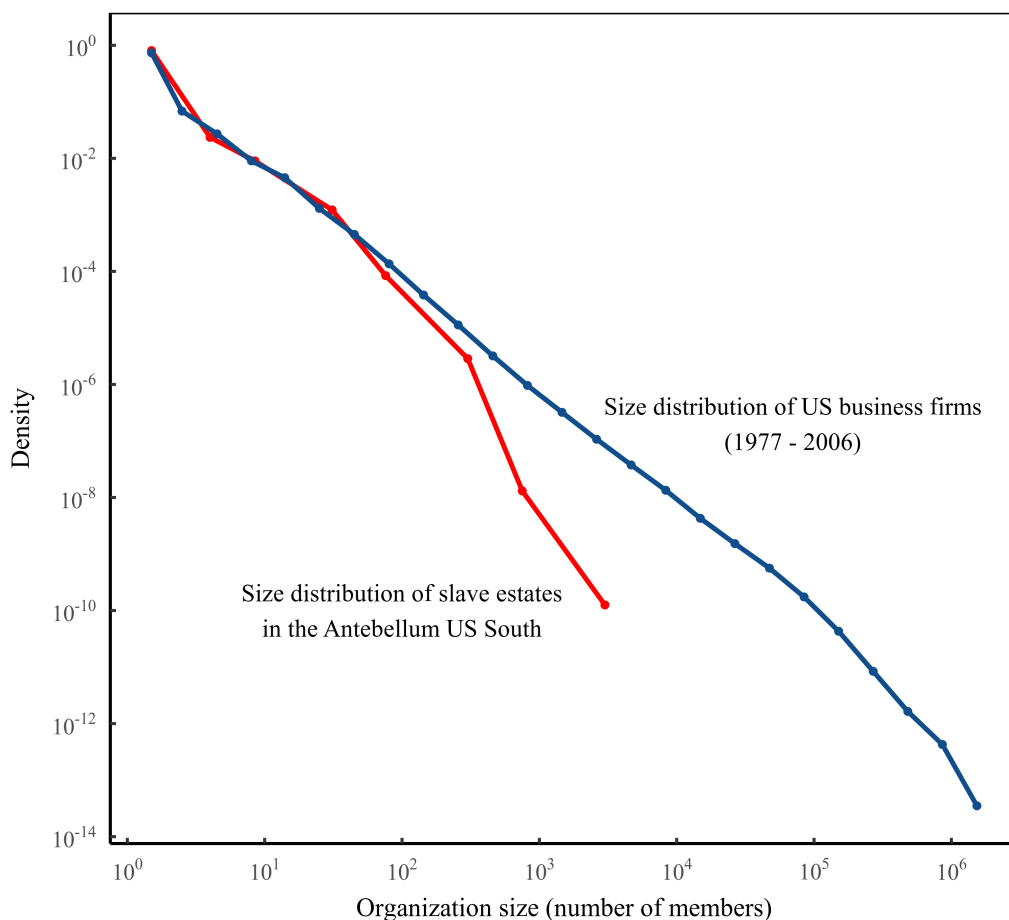


Figure 8: Scaling down despotism, scaling up organization size

This figure compares the size distribution of slave estates in the Antebellum US South to the size distribution of modern US business firms. The horizontal axis shows the number of members in the organization, plotted on a log scale. The vertical axis shows the relative abundance of the given-sized organization. Slave estates (red line) were overwhelmingly small, with few exceeding 1000 slaves. Today, US business firms (blue line) grow far larger, with many exceeding 10,000 members. [[Sources and methods](#)]

For the last half decade, I've been puzzling over this evidence, trying to understand how to make it fit with the standard picture from economics. Here are my conclusions:

1. Despite what economists say, societies always scale up using hierarchy;
2. The growth of hierarchy comes with cultural tools that ritualize and legitimize the centralization of power (economists are part of this cultural package);

3. Hierarchy is a double-edged sword. It can organize large numbers of people, yet it leads to despotism.

So where do markets fit into these conclusions? I think markets do two things. First, they turn power into a quantitative ritual. Instead of appealing to divine right, capitalist rulers appeal to the power of property rights, which can then be quantified (via stock prices) and bought and sold. This is not my own insight. It is the central thesis of Jonathan Nitzan and Shimshon Bichler's theory of ['capital as power'](#).

Second, I think that the norms, rules, and laws that come with markets act to make power less despotic. For example, the rule of law puts limits on corporate power. Jeff Bezos might *want* to sentence a petulant Amazon employee to be hanged, drawn and quartered. But the law says he *cannot*. The law also gives employees the right to leave a company if they wish. Granted, doing so may mean loss of income. Still, the effect is to limit despotism. If corporate rulers treat their subordinates badly, they risk losing them. The same is not true in a slave estate, or a kin-based institution. And so corporate hierarchies avoid the despotism that plagues intensive kinships.

What is not obvious (and what I am still trying to grapple with) is that by lessening despotism, market institutions actually promoted the growth of hierarchy. And yet that seems to be exactly what happened.

Back to Henrich. Readers of *The WEIRDest People* will be left with the impression that capitalist societies abandoned ritualized power as an organizing principle. I think that's a flawed conclusion that says more about capitalist ideology than it does about actual behavior. My view is that WEIRD people continue to appeal to ritualized power, but are largely unaware that they do so.

New pieces in the puzzle

Omissions aside, Henrich's book is a major contribution to the study of cultural evolution. His focus on the relation between intensive kinship and psychology is particularly important because it provides fresh insight into the debate over the emergence of Western culture. In the long term, my guess is that Henrich's research will revolutionize our understanding of cultural evolution.

For example, the relation between psychology and institutions helps to explain the inertia of culture. If people were ‘free’ to think about the world anyway they liked, then culture could not possibly last. (In a sense, culture would not exist, since it requires that behavior have some degree of uniformity.) But if culture imprints on individuals — directing their thought patterns and behavior — then it has staying power.¹⁵

The task that Henrich sets for himself is to understand how changes in psychology interrelate to changes in culture. His big idea (which he backs with abundant evidence) is that many of the tenets of Western thinking — things like liberalism, individualism, universalism, and reason — were germinating long before the Enlightenment. The seeds were planted, he argues, a thousand years earlier as the Catholic Church began to break up intensive kinship.

This idea is bound to be controversial and surely needs more research. But I think the best way to characterize Henrich’s book is as a new piece in the puzzle. Like the discovery of a new fossil bed, Henrich provides a rich trove of evidence that demands a consistent explanation.

¹⁵If, like me, you value ‘free thinking’, then the idea that culture restricts our thinking is a bitter pill to swallow. I’d like to believe that regardless of the time or place I was born, I’d have developed the same scientific worldview. But Henrich has convinced me that this is an illusion. Scientific thinking, he argues, is a cultural tool. And like all tools, it has been slowly improved over time.

In particular, science provides a prescription for when and how you should *not* defer to authority. This is important, because deference to authority is one of the main ways that culture is passed on. And that is often good. It would be disastrous, for example, if children had to learn by experiment that crossing highways was deadly. It’s far safer to be *told* of the danger — to accept an argument from authority.

The problem with deference to authority, however, is that it provides no way to distinguish between knowledge that is good, useless, or bad. For example, a medicinal recipe might contain some ingredients that are helpful and others that do nothing. And perhaps it comes wrapped in an elaborate ritual that involves human sacrifice. Deference to authority passes down the whole package to future generations. Science, in contrast, gives people the tools for deconstructing the package and separating the good from the useless and bad.

Of course, philosophers of science have long known that science strives to distinguish fact from fiction. But few philosophers have thought to connect scientific thinking to kinship structure. But Henrich does just that. Cultures built on intensive kinship, Henrich argues, tend to put more value on deference to authority and devotion to the clan. That makes the scientific worldview more difficult.

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Sources and methods

Data for the size distribution of slave estates (Figure 8) is from Lee Soltow's book *Men and wealth in the United States, 1850-1870*. You can peruse the data at [MeasuringWorth.com](https://www.measuringworth.com).

Data for the size distribution of US firms is from a variety of sources, discussed in my post '[Institution Size as a Window into Cultural Evolution](#)'.

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