

## Tradition is Smarter Than You Are

The more modern type of reformer goes gaily up to [a fence] and says, "I don't see the use of this; let us clear it away." To which the more intelligent type of reformer will do well to answer: "If you don't see the use of it, I certainly won't let you clear it away. Go away and think. Then, when you can come back and tell me that you do see the use of it, I may allow you to destroy it.

—G.K. Chesterton, *The Thing* (1929).

One of the themes pursued in the research of evolutionary anthropologist-cum-cross cultural psychologist Joseph Henrich is of interest to many far outside the academic worlds of anthropology and psychology. In this sense, Henrich reminds me somewhat of anthropologist-cum-political scientist James C. Scott. Their methods differ—Henrich is an innovator in field experiments, and is far fonder of his modeling and maths than Scott is—but their conclusions are oddly complementary.

Let's talk about Henrich first. One of the clearest presentations of his ideas is in his 2016 book *The Secret of Our Success*. The book is less a heavy scholarly tome than a poppified version of Henrich's research, but Henrich's decision to trade theoretical detail for accessibility is understandable (it is also why I don't feel bad quoting large blocks of text from the book in this post). Henrich advances the argument that **brain-power alone is not enough to explain why humans are such a successful species**. Humans, he argues, are not nearly as intelligent as we think they are. **Remove them from the culture and environment they have learned to operate in and they fail quickly**. His favorite example of this are European explorers who die in the middle of deserts, jungles, or arctic wastes even though thousands of generations of hunter-gatherers were able to survive and thrive in these same environments. If human success was due to our ability to problem solve, analyze, and rationally develop novel solutions to novel challenges, the explorers should have been fine. Their ghastly fates suggest that **rationality may not be the key to human survival**.

If rational thought is not the key to our success, what is?

To answer that, Henrich says, we should look at the **cassava plant**. Cassava, or manioc, is one of the most popular staple foods in the world. But there is a catch: if not prepared correctly, cassava will slowly poison you. Yet some populations eat it without a problem. How does this work? Henrich explains:

In the Americas, where manioc was first domesticated, societies who have relied on bitter varieties for thousands of years show no evidence of chronic cyanide poisoning. In the Colombian Amazon, for example, indigenous Tukanoans use a **multistep, multiday processing technique** that involves scraping, grating, and finally washing the roots in order to separate the fiber, starch, and liquid. Once separated, the liquid is boiled into a beverage, but the fiber and starch must then sit for two more days, when they can then be baked and eaten. Figure 7.1 shows the percentage of cyanogenic content in the liquid, fiber, and starch remaining through each major step in this processing.

Such processing techniques are crucial for living in many parts of Amazonia, where other crops are difficult to cultivate and often unproductive. However, despite their utility, **one person would have a difficult time figuring out the detoxification technique**. Consider the situation from the point of view of the **children and adolescents** who are learning the techniques. They would have **rarely, if ever, seen anyone get cyanide poisoning**, because the techniques work. And even if the processing was ineffective, such that cases of goiter

(swollen necks) or neurological problems were common, it would still be hard to recognize the link between these chronic health issues and eating manioc. Most people would have eaten manioc for years with no apparent effects. Low cyanogenic varieties are typically boiled, but boiling alone is insufficient to prevent the chronic conditions for bitter varieties. Boiling does, however, remove or reduce the bitter taste and prevent the acute symptoms (e.g., diarrhea, stomach troubles, and vomiting).

So, if one did the common-sense thing and just boiled the high-cyanogenic manioc, everything would seem fine. Since the multistep task of processing manioc is long, arduous, and boring, sticking with it is certainly non-intuitive. Tukanooan women spend about a quarter of their day detoxifying manioc, so this is a costly technique in the short term. Now consider what might result if a self-reliant Tukanooan mother decided to drop any seemingly unnecessary steps from the processing of her bitter manioc. She might critically examine the procedure handed down to her from earlier generations and conclude that the goal of the procedure is to remove the bitter taste. She might then experiment with alternative procedures by dropping some of the more labor-intensive or time-consuming steps. She'd find that with a shorter and much less labor-intensive process, she could remove the bitter taste. Adopting this easier protocol, she would have more time for other activities, like caring for her children. Of course, years or decades later her family would begin to develop the symptoms of chronic cyanide poisoning. Thus, the unwillingness of this mother to take on faith the practices handed down to her from earlier generations would result in sickness and early death for members of her family. Individual learning does not pay here, and intuitions are misleading. The problem is that the steps in this procedure are causally opaque—an individual cannot readily infer their functions, interrelationships, or importance. The causal opacity of many cultural adaptations had a big impact on our psychology.

Wait. Maybe I'm wrong about manioc processing. Perhaps it's actually rather easy to individually figure out the detoxification steps for manioc? Fortunately, history has provided a test case. At the beginning of the seventeenth century, the Portuguese transported manioc from South America to West Africa for the first time. They did not, however, transport the age-old indigenous processing protocols or the underlying commitment to using those techniques. Because it is easy to plant and provides high yields in infertile or drought-prone areas, manioc spread rapidly across Africa and became a staple food for many populations. The processing techniques, however, were not readily or consistently regenerated. Even after hundreds of years, chronic cyanide poisoning remains a serious health problem in Africa. Detailed studies of local preparation techniques show that high levels of cyanide often remain and that many individuals carry low levels of cyanide in their blood or urine, which haven't yet manifested in symptoms. In some places, there's no processing at all, or sometimes the processing actually increases the cyanogenic content. On the positive side, some African groups have in fact culturally evolved effective processing techniques, but these techniques are spreading only slowly.

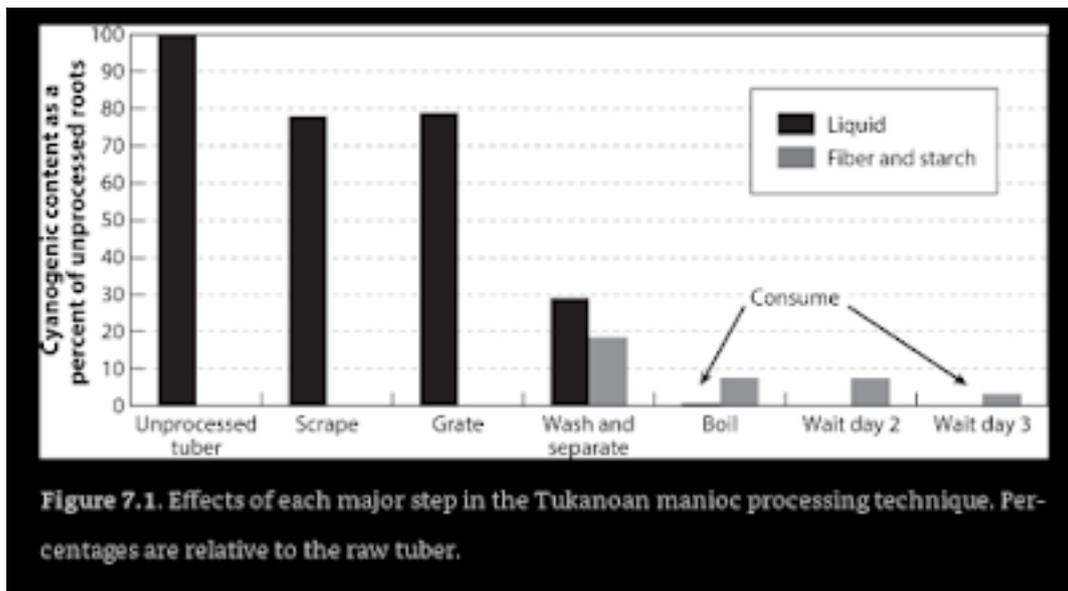


Figure 7.1. Effects of each major step in the Tukanoan manioc processing technique. Percentages are relative to the raw tuber.

Figure taken from Henrich, *The Secret of our Success*, p. 98

The point here is that cultural evolution is often much smarter than we are. Operating over generations as individuals unconsciously attend to and learn from more successful, prestigious, and healthier members of their communities, this evolutionary process generates cultural adaptations. Though these complex repertoires appear well designed to meet local challenges, they are not primarily the products of individuals applying causal models, rational thinking, or cost-benefit analyses. Often, most or all of the people skilled in deploying such adaptive practices do not understand how or why they work, or even that they “do” anything at all. Such complex adaptations can emerge precisely because natural selection has favored individuals who often place their faith in cultural inheritance—in the accumulated wisdom implicit in the practices and beliefs derived from their forbearers—over their own intuitions and personal experiences.

Henrich records another example of clever cultural traditions in northern Canada:

When hunting caribou, Naskapi foragers in Labrador, Canada, had to decide where to go. Common sense might lead one to go where one had success before or to where friends or neighbors recently spotted caribou. However, this situation is like Matching Pennies in chapter 2. The caribou are mismatchers and the hunters are matchers. That is, hunters want to match the locations of caribou while caribou want to mismatch the hunters, to avoid being shot and eaten. If a hunter shows any bias to return to previous spots, where he or others have seen caribou, then the caribou can benefit (survive better) by avoiding those locations (where they have previously seen humans). Thus, the best hunting strategy requires randomizing. Can cultural evolution compensate for our cognitive inadequacies? Traditionally, Naskapi hunters decided where to go to hunt using divination and believed that the shoulder bones of caribou could point the way to success. To start the ritual, the shoulder blade was heated over hot coals in a way that caused patterns of cracks and burnt spots to form. This patterning was then read as a kind of map, which was held in a pre-specified orientation. The cracking patterns were (probably) essentially random from the point of view of hunting locations, since the outcomes depended on myriad details about the bone, fire, ambient temperature, and heating process. Thus, these divination rituals may have provided a crude randomizing device that helped hunters avoid their own decision-making biases. The undergraduates in the Matching Pennies game could have used a randomizing device like divination, though the chimps seem fine without it. [2]

My China-focused readers will spot the similarities between this practice and that of the ancient Shang oracle bones. The Shang would burn the bones of oxen or turtle shells to divine all manner of things, including whether to embark on punitive military expeditions. Perhaps Shang military attacks also followed the logic of Matching Pennies?

Henrich also discusses a similar practice in Indonesia:

In Indonesia, the Kantus of Kalimantan use bird augury to select locations for their agricultural plots. The anthropologist Michael Dove argues that two factors will cause farmers to make plot placements that are too risky. First, Kantu ecological models contain the Gambler's Fallacy and lead them to expect that floods will be less likely to occur in a specific location after a big flood in that location (which is not true).

Second, as with the MBAs' investment allocations in chapter 4, Kantus pay attention to others' success and copy the choices of successful households, meaning that if one of their neighbors has a good yield in an area one year, many other people will want to plant there in the next year. Reducing the risks posed by these cognitive and decision-making biases, the Kantu rely on a system of bird augury that effectively randomizes their choices for locating garden plots, which helps them avoid catastrophic crop failures. The results of divination depend not only on seeing a particular bird species in a particular location, but also on what type of call the bird makes (one type of call may be favorable, and another unfavorable).

The patterning of bird augury supports the view that this is a cultural adaptation. The system seems to have evolved and spread throughout this region since the seventeenth century when rice cultivation was introduced. This makes sense, since it is rice cultivation that is most positively influenced by randomizing garden locations. It's possible that, with the introduction of rice, a few farmers began to use bird sightings as an indication of favorable garden sites. On average, over a lifetime, these farmers would do better—be more successful—than farmers who relied on the Gambler's Fallacy or on copying others' immediate behavior.

Whatever the process, within 400 years, the bird augury system had spread throughout the agricultural populations of this Borneo region. Yet it remains conspicuously missing or underdeveloped among local foraging groups and recent adopters of rice agriculture, as well as among populations in northern Borneo who rely on irrigation. So, bird augury has been systematically spreading in those regions where it is most adaptive. This example makes a key point: not only do people often not understand what their cultural practices are doing, but sometimes it may even be important that they don't understand what their practices are doing or how they work. If people came to understand that bird augury or bone divination didn't actually predict the future, the practice would probably be dropped or people would increasingly ignore ritual findings in favor of their own intuitions. [3]

Henrich has dozens of these examples. The common thread pulling them together is that the people whose survival is guaranteed by strict observance of these traditions have no real explanation for why they are following them. Henrich goes into this with more depth in discussion of his ethnographic work in \_\_\_\_\_, where \_\_\_\_\_:

We looked for a \_\_\_\_\_ of why one would not eat these marine species during pregnancy or breastfeeding—a causal model or set of reasoned principles. Unlike the \_\_\_\_\_ on what not to eat and when, women's responses to our why questions were all over the map. Many women simply said they did not know and clearly thought it was an odd question. Others said it was "custom." Some did suggest that the consumption of at least some of the species might result in harmful effects to the

fetus, but what precisely would happen to the fetus varied greatly, though a nontrivial segment of the women explained that babies would be born with rough skin if sharks were eaten and smelly joints if morays were eaten. Unlike most of our interview questions on this topic, the answers here had the flavor of post-hoc rationalization: “Since I’m being asked for a reason, there must be a reason, so I’ll think one up now.” This is extremely common in ethnographic fieldwork, and I’ve personally experienced it in the Peruvian Amazon with the Matsigenka and with the Mapuche in southern Chile.

Of course, it’s not particularly difficult to get similar responses from educated Westerners, but there remains a striking difference: educated Westerners are trained their entire lives to think that behaviors must be underpinned by explicable and declarable reasons, so we are more likely to have them at the ready and feel more obligated to supply “good” reasons upon request. Saying “it’s our custom” is not considered a good reason. The pressure for an acceptable, clear, and explicit reason for doing things is merely a social norm common in Western populations, which creates the illusion (among Westerners) that humans generally do things based on explicit causal models and clear reasons. They often do not. [4]

Henrich makes two arguments here, both relevant to contemporary debates in politics and philosophy. The first is that customs, traditions, and the like are subject to Darwinian selection. Henrich is not always clear on exactly what is being selected for—is it individuals who follow a tradition, groups whose members all follow the tradition, or the tradition itself?—but the general gist is that traditions stick around longest when they are adaptive. This process is “blind.” Those who follow the traditions do not know how they work, and in some cases (like religious rituals that build social solidarity) knowing the details of how they work might actually reduce the efficacy of the tradition. That is the second argument of note: we do not (and often cannot) understand just how the traditions we inherit help our survival, and because of that, it is difficult to artificially create replacements.

I do not think Henrich is willing to extend these points to all elements of human culture. If we are to take analogies with genetic evolution seriously, then we should not be surprised if a large amount of our cultural baggage are just random accretions passed on from one generation to the next—in essence, the cultural version of genetic drift. But that is the trouble: we have no way to tell which traditions are adaptive and which are merely drift.

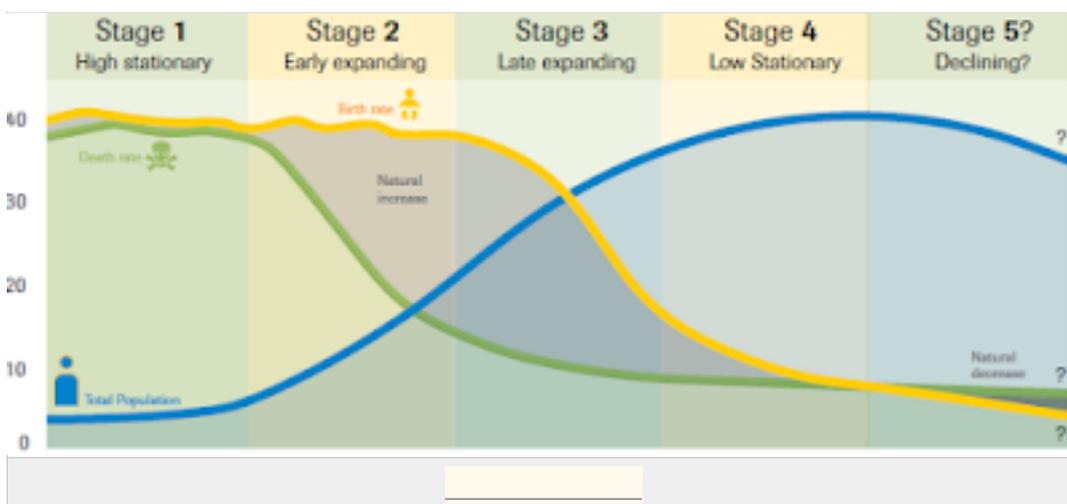
All of this meshes splendidly with the work of James C Scott.[5] (If you have never read anything by him before, I recommend starting with this essay). Scott has spent a large amount of his career studying the way states shape the societies they rule over, and the way societies try to resist the advance of the state. The central problem of ruler-ship, as Scott sees it, is what he calls legibility. To extract resources from a population the state must be able to understand that population. The state needs to make the people and things it rules legible to agents of the government. Legibility means uniformity. States dream up uniform weights and measures, impress national languages and ID numbers on their people, and divvy the country up into land plots and administrative districts, all to make the realm legible to the powers that be. The problem is that not all important things can be made legible. Much of what makes a society successful is knowledge of the tacit sort: rarely articulated, messy, and from the outside looking in, purposeless. These are the first things lost in the quest for legibility. Traditions, small cultural differences, odd and distinctive lifeways—in other words, the products of cultural evolution that Henrich fills his book with—are all swept aside by a rationalizing state that preserves (or in many cases, imposes) only what it can be understood and manipulated

from the 2,000 foot view. The result, as Scott chronicles with example after example, are many of the greatest catastrophes of human history.

None of Scott's works are in Henrich's bibliography, but it is hard to imagine Henrich being surprised by this outcome. The social engineer is attempting to replace hundreds of traditions, norms, and nuggets of local knowledge through rational calculation. He is the functional equivalent of the European explorer starving in lands of plenty. The only difference between the rationalist explorer and the rationalist social engineer is that the engineer has the power to force the land to starve with him.

Can any of this be put into action? I suspect many conservatives will think the answer to this question is obvious. Henrich and Scott have provided empirical support for maintaining "Chesterton's fence." Chesterton asks us not destroy customs, tradition, and social structures that we cannot explain. Henrich and Scott question our ability to rationally explain them. Implicit in this is a strong defense of the local, the traditional, and the unchanging.

The trouble with our world is that it is changing. Henrich focuses on small scale societies. These societies are not static. The changes they undergo are often drastic. But the distance between the life-style of a forager today and that of her ancestors five hundred years ago pales next to the gap that yawns between the average city-slicker and her ancestors five centuries past. Consider the implications of what demographers call the "demographic transition model:"



Each stage in the model presents a different sort of society than that which came before it. Very basic social and economic questions—including subsistence strategy, family type, mechanisms for mate selection, and so forth—change substantially as societies move through one stage to the next. Customs and norms that are adaptive for individuals in stage two societies may not be adaptive for individuals in living in stage four societies.

If the transition between these stages was slow this would not matter much. But it is not. Once stage two begins, each stage is only two or three generations long. Europeans, Japanese, Taiwanese, and South Koreans born today look forward to spending their teenage years in stage five societies. What traditions could their grandparents give them that might prepare them for this new world? By the time any new tradition might arise, the conditions that made it adaptive have already changed.

This may be why the rationalist impulse wrests so strong a hold on the modern mind. The traditions are gone; custom is dying. In the search for happiness, rationalism is the only tool we have left.