This Is Your Brain on Nationalism

The Biology of Us and Them

Robert Sapolsky

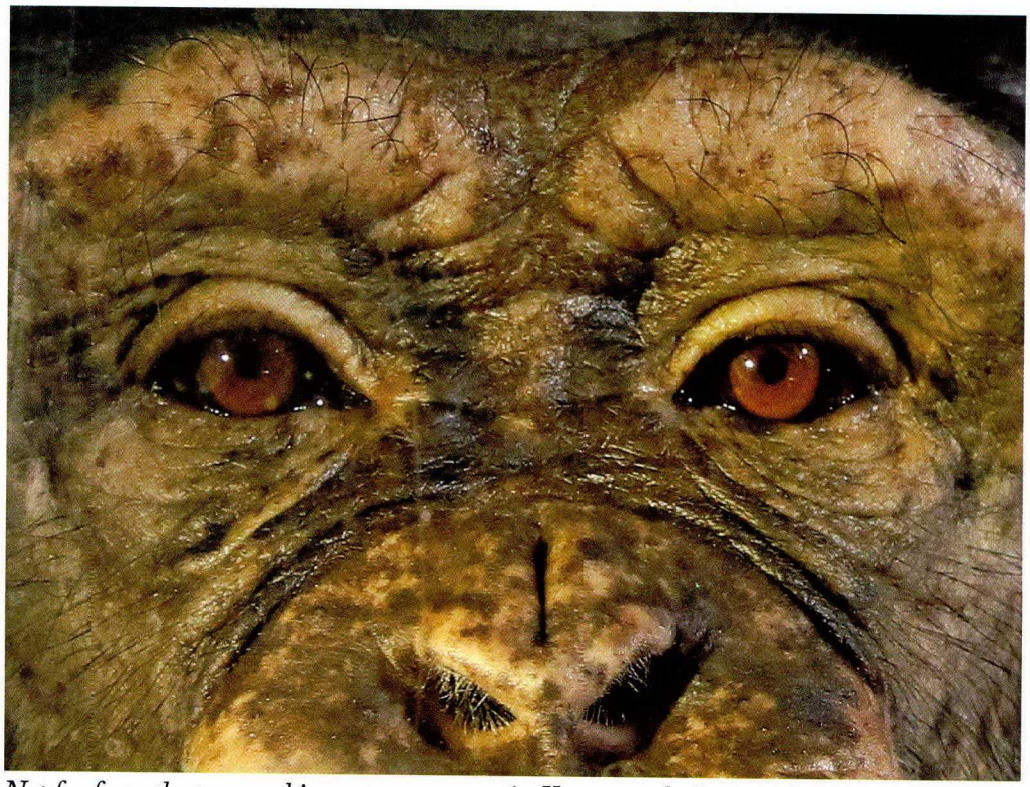
He never stood a chance. His first mistake was looking for food alone; perhaps things would have turned out differently if he'd been with someone else. The second, bigger mistake was wandering too far up the valley into a dangerous wooded area. This was where he risked running into the Others, the ones from the ridge above the valley. At first, there were two of them, and he tried to fight, but another four crept up behind him and he was surrounded. They left him there to bleed to death and later returned to mutilate his body. Eventually, nearly 20 such killings took place, until there was no one left, and the Others took over the whole valley.

The protagonists in this tale of blood and conquest, first told by the primatologist John Mitani, are not people; they are chimpanzees in a national park in Uganda. Over the course of a decade, the male chimps in one group systematically killed every neighboring male, kidnapped the surviving females, and expanded their territory. Similar attacks occur in chimp populations elsewhere; a 2014 study found that chimps are about 30 times as likely to kill a chimp from a neighboring group as to kill one of their own. On average, eight males gang up on the victim.

If such is the violent reality of life as an ape, is it at all surprising that humans, who share more than 98 percent of their DNA with chimps, also divide the world into "us" and "them" and go to war over these categories? Reductive comparisons are, of course, dangerous; humans share just as much of their DNA with bonobos, among whom such brutal behavior is unheard of. And although humans kill not just over access to a valley but also over abstractions such as ideology, religion, and economic power, they are unrivaled in their ability to change their behavior. (The Swedes spent the seventeenth century rampaging through Europe; today they are, well, the Swedes.) Still, humankind's best and worst moments arise from a system that incorporates everything from the previous second's neuronal activity to the last million years of evolution (along with a complex set of social factors). To understand the dynamics of human group identity, including the resurgence of nationalism—that potentially most destructive form of in-group bias—requires grasping the biological and cognitive underpinnings that shape them.

Such an analysis offers little grounds for optimism. Our brains distinguish between in-group members and outsiders in a fraction of a second, and they encourage us to be kind to the former but hostile to the latter. These biases are automatic and unconscious and emerge at astonishingly young ages. They are, of course, arbitrary and often fluid. Today's "them" can become tomorrow's "us." But this is only poor consolation.

ROBERT SAPOLSKY is Professor of Biology, Neurosurgery, and Neurology and Neurological Sciences at Stanford University and the author of *Behave: The Biology of Humans at Our Best and Worst.*



Not far from the tree: a chimpanzee at a zoo in Krasnoyarsk, Russia, October 2017

ILYA NAYMUSHIN / REUTERS

Humans can rein in their instincts and build societies that divert group competition to arenas less destructive than warfare, yet the psychological bases for tribalism persist, even when people understand that their loyalty to their nation, skin color, god, or sports team is as random as the toss of a coin. At the level of the human mind, little prevents new teammates from once again becoming tomorrow's enemies.

TRIBAL MINDS

The human mind's propensity for us-versus-them thinking runs deep. Numerous careful studies have shown that the brain makes such distinctions automatically and with mind-boggling speed. Stick a volunteer in a brain scanner and quickly flash pictures of faces. Among typical white subjects in the scanner, the sight of a black man's face activates the amygdala, a brain region central to emotions of fear and aggression, in under one-tenth of a second. In most cases, the prefrontal cortex, a region crucial for impulse control and emotional regulation, springs into action a second or two later and silences the amygdala: "Don't think that way, that's not who I am." Still, the initial reaction is usually one of fear, even among those who know better.

This finding is no outlier. Looking at the face of someone of the same race activates a specialized part of the primate brain called the fusiform cortex, which recognizes faces, but it is activated less so when the face in question is that of someone of another race. Watching the hand of someone of the same race being poked with a needle activates the anterior cingulate cortex, a region implicated in feelings of

empathy; being shown the same with the hand of a person of another race produces less activation. Not everyone's face or pain counts equally.

At every turn, humans make automatic, value-laden judgments about social groups. Suppose you are prejudiced against ogres, something you normally hide. Certain instruments, such as the Implicit Association Test, will reveal your prejudice nonetheless. A computer screen alternates between faces and highly emotive terms, such as "heroic" or "ignorant." In response, you are asked to quickly press one of two buttons. If the button pairings fit your biases ("press Button A for an ogre's face or a negative term and Button B for a human face or a positive term"), the task is easy, and you will respond rapidly and accurately. But if the pairings are reversed ("press Button A for a human face or a negative term and Button B for an ogre's face or a positive term"), your responses will slow. There's a slight delay each time, as the dissonance of linking ogres with "graceful" or humans with "smelly" gums you up for a few milliseconds. With enough trials, these delays are detectable, revealing your anti-ogre bias—or, in the case of actual subjects, biases against particular races, religions, ethnicities, age groups, and body types.

Needless to say, many of these biases are acquired over time. Yet the cognitive structures they require are often present from the outset. Even infants prefer those who speak their parents' language. They also respond more positively to—and have an easier time remembering—faces of people of their parents' race. Likewise, three-year-olds tend to prefer people of their own race and gender. This is not because children are born with innate racist beliefs, nor does it require that parents actively or implicitly teach their babies racial or gender biases, although infants can pick up such environmental influences at a very young age, too. Instead, infants like what is familiar, and this often leads them to copy their parents' ethnic and linguistic in-group categorizations.

Sometimes the very foundations of affection and cooperation are also at the root of humankind's darker impulses. Consider oxytocin, a compound whose reputation as a fuzzy "cuddle hormone" has recently taken a bit of a hit. In mammals, oxytocin is central to mother-infant bonding and helps create close ties in monogamous couples. In humans, it promotes a whole set of pro-social behaviors. Subjects given oxytocin become more generous, trusting, empathic, and expressive. Yet recent findings suggest that oxytocin prompts people to act this way only toward in-group members—their teammates in a game, for instance. Toward outsiders, it makes them aggressive and xenophobic. Hormones rarely affect behavior this way; the norm is an effect whose strength simply varies in different settings. Oxytocin, however, deepens the fault line in our brains between "us" and "them."

Put simply, neurobiology, endocrinology, and developmental psychology all paint a grim picture of our lives as social beings. When it comes to group belonging, humans don't seem too far from the families of chimps killing each other in the forests of Uganda: people's most fundamental allegiance is to the familiar. Anything or anyone else is likely to be met, at least initially, with a measure of skepticism, fear, or hostility.

In practice, humans can second-guess and tame their aggressive tendencies toward the Other. Yet doing so is usually a secondary, corrective step.

TURBANS TO HIPSTER BEARDS

For all this pessimism, there is a crucial difference between humans and those warring chimps. The human tendency toward in-group bias runs deep, but it is relatively value-neutral. Although human biology makes the rapid, implicit formation of us-them dichotomies virtually inevitable, who counts as an outsider is not fixed. In fact, it can change in an instant.

For one, humans belong to multiple, overlapping in-groups at once, each with its own catalog of outsiders—those of a different religion, ethnicity, or race; those who root for a different sports team; those who work for a rival company; or simply those have a different preference for, say, Coke or Pepsi. Crucially, the salience of these various group identities changes all the time. Walk down a dark street at night, see one of "them" approaching, and your amygdala screams its head off. But sit next to that person in a sports stadium, chanting in unison in support of the same team, and your amygdala stays asleep. Similarly, researchers at the University of California, Santa Barbara, have shown that subjects tend to quickly and automatically categorize pictures of people by race. Yet if the researchers showed their subjects photos of both black and white people wearing two different colored uniforms, the subjects automatically began to categorize the people by their uniforms instead, paying far less attention to race. Much of humans' tendency toward in-group/

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out-group thinking, in other words, is not permanently tied to specific human attributes, such as race. Instead, this cognitive architecture evolved to detect any potential cues about social coalitions and alliances—to increase one's chance of survival by telling friend from foe. The specific features that humans focus on to make this determination vary depending on the social context and can be easily manipulated.

Even when group boundaries remain fixed, the traits people implicitly associate with "them" can change—think, for instance, about how U.S. perceptions of different immigrant groups have shifted over time. Whether a dividing line is even drawn at all varies from place to place. I grew up in a neighborhood in New York with deep ethnic tensions, only to discover later that Middle America barely distinguishes between my old neighborhood's "us" and "them." In fact, some actors spend their entire careers alternating between portraying characters of one group and then the other.

This fluidity and situational dependence is uniquely human. In other species, in-group/out-group distinctions reflect degrees of biological relatedness, or what evolutionary biologists call "kin selection." Rodents distinguish between a sibling, a cousin, and a stranger by smell—fixed, genetically determined pheromonal signatures—and adapt their cooperation accordingly. Those murderous groups of chimps are largely made up of brothers or cousins who grew up together and predominantly harm outsiders.

Humans are plenty capable of kin-selective violence themselves, yet human group mentality is often utterly independent of such instinctual familial bonds. Most modern human societies rely instead on cultural kin selection, a process allowing people to feel closely related to what are, in a biological sense, total strangers. Often, this requires a highly active process of inculcation, with its attendant rituals and vocabularies. Consider military drills producing "bands of brothers," unrelated college freshmen becoming sorority "sisters," or the bygone value of welcoming immigrants into "the American family." This malleable, rather than genetically fixed, path of identity formation also drives people to adopt arbitrary markers that enable them to spot their cultural kin in an ocean of strangers—hence the importance various communities attach to flags, dress, or facial hair. The hipster beard, the turban, and the "Make America Great Again" hat all fulfill this role by sending strong signals of tribal belonging.

Moreover, these cultural communities are arbitrary when compared to the relatively fixed logic of biological kin selection. Few things show this arbitrariness better than the experience of immigrant families, where the randomness of a visa lottery can radically reshuffle a child's education, career opportunities, and cultural predilections. Had my grandparents and father missed the train out of Moscow that they instead barely made, maybe I'd be a chain-smoking Russian academic rather than a Birkenstock-wearing American one, moved to tears by the heroism during the Battle of Stalingrad rather than that at Pearl Harbor. Scaled up from the level of individual family histories, our big-picture group identities—the national identities and cultural principles that structure our lives—are just as arbitrary and subject to the vagaries of history.

REVOLUTION OR REFORM?

That our group identities—national and otherwise—are random makes them no less consequential in practice, for better and for worse. At its best, nationalism and patriotism can prompt people to pay their taxes and care for their nation's have-nots, including unrelated people they have never met and will never meet. But because this solidarity has historically been built on strong cultural markers of pseudo-kinship, it is easily destabilized, particularly by the forces of globalization, which can make people who were once the archetypes of their culture feel irrelevant and bring them into contact with very different sorts of neighbors than their grandparents had. Confronted with such a disruption, tax-paying civic nationalism can quickly devolve into something much darker: a dehumanizing hatred that turns Jews into "vermin," Tutsis into "cockroaches," or Muslims into "terrorists." Today, this toxic brand of nationalism is making a comeback across the globe, spurred on by political leaders eager to exploit it for electoral advantage.

In the face of this resurgence, the temptation is strong to appeal to people's sense of reason. Surely, if people were to understand how arbitrary nationalism is, the concept would appear ludicrous. Nationalism is a product of human cognition, so cognition should be able to dismantle it, too.

Yet this is wishful thinking. In reality, knowing that our various social bonds are essentially random does little to weaken them. Working in the 1970s, the psychologist Henri Tajfel called this "the minimal group paradigm." Take a bunch of strangers and randomly split them into two groups by tossing a coin. The participants know the meaninglessness of the division. And yet within minutes, they are more generous toward and trusting of members of their in-group. Tails prefer not to be in the company of Heads, and vice versa. The pull of us-versus-them thinking is strong even when the arbitrariness of social boundaries is utterly transparent, to say nothing of when it is woven into a complex narrative about loyalty to the fatherland. You can't reason people out of a stance they weren't reasoned into in the first place.

Modern society may well be stuck with nationalism and many other varieties of human divisiveness, and it would perhaps be more productive to harness these dynamics rather than fight or condemn them. Instead of promoting jingoism and xenophobia, leaders should appeal to people's innate in-group tendencies in ways that incentivize cooperation, accountability, and care for one's fellow humans. Imagine a nationalist pride rooted not in a country's military power or ethnic homogeneity but in the ability to take care of its elderly, raise children who score high on tests of empathy, or ensure a high degree of social mobility. Such a progressive nationalism would surely be preferable to one built on myths of victimhood and dreams of revenge. But with the temptation of mistaking the familiar for the superior still etched into the mind, it is not beyond the human species to go to war over which country's people carry out the most noble acts of random kindness. The worst of nationalism, then, is unlikely to be overcome anytime soon.

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