

OCTOBER 2020

SCIENTIFICAMERICAN.COM

SCIENTIFIC AMERICAN



CONFRONTING RACISM // INTERSTELLAR VISITORS // UNCONQUERED MAYA

COVID DREAMS

How the pandemic is changing the world's sleep

\$7.99 U.S.



MIND

30 Infectious Dreams

How the COVID-19 pandemic is changing our sleeping lives.

By Tore Nielsen

VIROLOGY

36 What We Learned from AIDS

Lessons from another pandemic for fighting COVID-19.

By William A. Haseltine

ASTRONOMY

42 Interstellar Interlopers

Two recently sighted space rocks that came from beyond the solar system have puzzled astronomers.

By David Jewitt and Amaya Moro-Martín

PUBLIC HEALTH

50 Born Unequal

Improving newborn health and why it matters now more than ever.

By Janet Currie

SOCIAL SCIENCES

58 How to Unlearn Racism

Implicit bias training isn't enough.

What actually works?

By Abigail Libers

PSYCHOLOGY

64 All Together Now

Synchronized activities such as group dancing and exercise promote surprisingly strong bonds, probably through changes in brain chemistry.

By Marta Zaraska

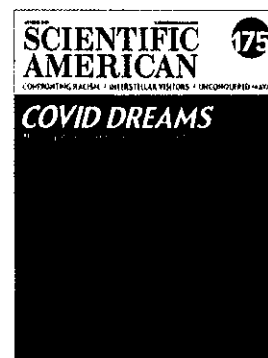
ARCHAEOLOGY

70 Fate of the Unconquered Maya

The Lacandon Maya eluded the Spanish conquistadors and survived in the jungle for hundreds of years.

Archaeological discoveries are revealing their past.

By Zach Zorich

**ON THE COVER**

Dreams can be strange, but the COVID-19 pandemic has made them more bizarre. Many people report dreams about being threatened or being unable to cope. Lockdowns and social distancing, so alien to our normal lives, may also be overwhelming useful functions that dreams provide, such as helping us regulate our emotions. Illustration by Gofri Montes.



HOW TO UNLEARN RACISM

Implicit bias training isn't enough.
What actually works?

By Abigail Libers

Illustration by Benjamin Currie



\$7.99 U.S.



I

IN FEBRUARY 2016 I SAT IN A CONFERENCE ROOM ON THE UPPER EAST SIDE OF MANHATTAN with about 35 other people attempting to answer what seemed like a straightforward question: *What is racism?*

I—a white, able-bodied, cis-gendered woman in my 30s—thought that racism was prejudice against an individual because of race or ethnicity. That's why I had signed up for the Undoing Racism Workshop, a two-and-a-half-day anti-racist training that analyzes race and power structures in the U.S.: I wanted to gain a better understanding of why some people have so much contempt toward those who are different from them. My yearning for answers came from personal experience with discrimination as a Jewish woman and the daughter of immigrants; my parents fled to the U.S. from the former Soviet Union in 1979. Growing up in a small town in upstate New York followed by an even smaller, more rural town in Georgia, I was picked on and often felt "othered."

The workshop was hosted by the People's Institute for Survival and Beyond (PISAB), an organization that was founded 40 years ago by community organizers who wanted to create a more equitable society by addressing the root causes of racism. Our leaders—a Black man, a white woman and a Latina woman—called on each of us to share our definitions of racism. People's responses were all over the map, from "a mean-spirited, close-minded way of thinking" to "discrimination based on someone's skin color or ethnic background." The trainers validated each of our responses before pointing out how varied they were and explaining that few of us had identified racism as a web of institutional power and oppression based on skin color. Not having a simple or agreed-on definition of racism makes it easier to keep racism in place. To undo racism, they said, we need a common language that ties together individual and systemic factors. Hearing racism described as a power hierarchy was eye-opening for me. Having been marginalized myself, I thought I was sensitive toward other groups who faced discrimination. I thought I got it.

Over the past several months, America has been reckoning with racism on a scale that has not been seen since the civil-rights movement. The recent killings of

George Floyd, Ahmaud Arbery, Breonna Taylor and others sparked protests against systemic racism and police violence that have drawn multiracial participation. Some white Americans attended Black Lives Matter protests for the first time—the movement has been active since 2013—and saw up close the police brutality they previously only read about or witnessed through short video clips on phone screens. These experiences were a tiny window into the reality of violence and oppression that Black people endure. The pandemic further emphasizes the racial disparities that people are protesting, with Black, Latinx and Indigenous communities disproportionately affected by COVID-19. It has become widely discussed that police violence and virus deaths are not disparate issues—they are both embedded in a pervasive system of racism.

PISAB's definition of racism (which is similar to that of other antiracism organizations such as the Racial Equity Institute) is race prejudice plus power. It describes how individual and systemic racism are tied together. All of us have individual race prejudice: anyone can prejudge a person based on race alone. But what makes racism different from individual prejudice is who has institutional power. White people control

our government systems and institutions in every sector, from law enforcement and education to health care and the media, leading to laws and policies that can advantage white people while disadvantaging everyone else.

White people's dominance in our systems is why you may have heard people refer to the U.S. as a white supremacist society in recent months. In this context, white supremacy does not refer to hate groups such as neo-Nazis and the Ku Klux Klan but rather an entire *system* where one group has all the advantages. "Racism is white supremacy," says Joseph Barndt, an organizer and core trainer with PISAB and author of *Understanding and Dismantling Racism: The Twenty-First Century Challenge to White America*. "It's empowering one alleged racial group over another and creating systems to reinforce that."

As more white people seek to confront and undo racism in their own lives, they are figuring out how to "do the work." In recent years implicit bias trainings, which aim to expose people to the negative associations and stereotypes they hold and express unconsciously, have been widely used to raise people's awareness of racism in workplaces. But addressing bias is not sufficient for confronting the racist systems, ideas and legacies that are present in our day-to-day lives. There is no one-size-fits-all solution, but research shows that undoing racism often starts with understanding what race and racism actually are. It is also crucial to develop a positive racial identity; to feel—not just intellectualize—how racism harms *all* of us and, finally, to learn how to break prejudice habits and become an active anti-racist. Doing so, however, is not accomplished in a weekend. For me, one of the first steps was unlearning false ideas about the basis of racial categories.

SEEING WHITENESS IN THE ORIGINS OF RACE

RACE IS DEEPLY EMBEDDED in our society, yet it is persistently misunderstood to be a biological construct rather than a cultural one. The concept of racial categories is actually quite modern, explains Crystal Fleming, a professor of sociology at Stony Brook University and author of *How to Be Less Stupid about Race*: "If we think about our species existing for at least a few hundred thousand years, it's only in the last several centuries that we see the historical emergence of the idea of race." This is a history that most Americans are not taught in school.

False classifications of humans that would later be called "races" began in the 16th and 17th centuries with Christian clergy questioning whether "Blacks" and "Indians" were human. As colonial expansion and slavery increased, religion was used to justify classifying Black people and other people of color as "pagan and soulless." But as many of them were converted to Christianity and the Age of Enlightenment took off in the 1700s, religion lost its legitimizing power.

Instead "science" was used to justify the enslavement of Africans and the genocide of Indigenous peoples, which had already been occurring in British colonies for more than a century. Johann Friedrich Blumenbach, a German anthropologist and comparative anatomist, is known for proposing one of the earliest classifications of the human race, which he wrote about in the late 1700s.

His measurement of skulls from around the world led him to divide humans into five groups, which were later simplified by

anthropologists into three categories: Caucasoids, Mongoloids and Negroids. It did not seem to matter that some prominent scientists, including Charles Darwin, dismissed a biological basis for race over the next century. Many scientists dedicated themselves to proving a false racial hierarchy in which "Caucasians" were superior to other races.

In the U.S., political and intellectual leaders reinforced the false ideology that Africans were biologically inferior to other races and therefore best suited for slavery. After Bacon's Rebellion in 1676, which had united white and Black indentured servants, Virginia lawmakers began to make legal distinctions between "white" and "Black" people. Poor white indentured servants who served their term could go free and own land; Black servants were committed to lifelong servitude. With the Naturalization Act of 1790, Congress codified white racial advantage into law by limiting citizen-

Although biology has shown that there are no genetically distinct races, racial *identity* is very real. In a white-dominant society, white people tend to be unaware of their identity and may think of themselves as neutral, as nonracial.

ship by naturalization to "free white persons," namely white men. Women, people of color and indentured servants were excluded.

With white superiority cemented firmly into law, the social and political power of *whiteness* was born. As a category, it was increasingly associated with resources and power: explicit laws and practices that created whiteness as a requirement for being able to live in certain neighborhoods, to be able to vote, to own land, to testify in court before a jury. The legacy of "scientific" racism persists to this day.

Although biology has shown that there are no genetically distinct races, racial *identity*—how you and others perceive your race—is very real, as are its ramifications. In a white-dominant society like America, white people tend to be unaware of their identity and may think of themselves as neutral, as nonracial. According to the work of psychologist Janet Helms, who published six stages of white racial identity development in 1999, the first stage is defined by a lack of awareness of cultural and institutional racism. This stage is also characterized by being "color-blind"—imagining one does not see people's differences and viewing that as a positive trait others should aspire to.

As scholar and activist Peggy McIntosh notes in a 1989 article, this lack of awareness is common. She describes white privilege as an "invisible package of unearned assets that I can count on cashing in each day, but about which I was 'meant' to remain oblivious. White privilege is like an invisible weightless knapsack of special provisions, maps, passports, codebooks, visas, clothes, tools, and blank checks."

To unlearn racism then, white people must first examine their racial identity. Black scholars and writers of color have known this for more than a century; their survival depended on it. Frederick

Douglass, W.E.B. Du Bois, James Baldwin, Audre Lorde, Angela Davis, Ta-Nehisi Coates and many others have observed, analyzed and written about whiteness for generations. Du Bois made observations about whiteness in 1899 with his sociological study *The Philadelphia Negro* and in 1935 with his book, *Black Reconstruction in America*. Recently Ijeoma Oluo, author of *So You Want to Talk about Race*, wrote in a popular Medium article: “I know white culture better than most white people know white culture.”

It has only been in the past few decades that white scholars have turned the lens on themselves with the emergence of Critical Whiteness Studies (CWS), a growing academic field that aims to examine the structures of white supremacy and privilege and to investigate the meaning of white privilege and how it is connected to complicity in racism. According to Barbara Applebaum, a professor of philosophy and education at Syracuse University,

This awakening may lead people to work on creating a positive racial identity away from white supremacism. Shame isn't an effective motivator and can inhibit the stamina needed to push for systemic change.

CWS shifts the focus, and thus the blame, from the victims of racism to the perpetrators. As she explains, “it names the elephant in the room—the construction and maintenance of whiteness.”

WORKSHOPS AREN'T ENOUGH

OVER THE PAST 20 YEARS or so initiatives to address racism have focused heavily on implicit bias trainings. A growing body of cognitive research demonstrates how these hidden biases impact our attitudes and actions, which result in real-world consequences such as racial profiling.

The trainings, which are often sponsored by human resources departments but delivered to employees by outside consulting firms, may consist of modules that walk people through what implicit bias is and where it comes from, how it shows up in the workplace, how it is measured (typically through the Implicit Association Test) and how to reduce it. Over the past decade these trainings have been widely used in the law-enforcement industry as well as in the tech industry, with companies such as Facebook and Google putting thousands of employees through trainings. More recently, antibias trainings have been implemented in schools for teachers.

While these sessions may be useful in exposing people's hidden biases, those revelations have not been shown to result in long-term behavioral change on an individual or systemic level. In a 2018 paper published in *Anthropology Now*, Harvard University sociologist Frank Dobbin writes: “Hundreds of studies dating back to the 1930s suggest that antibias training does not reduce bias, alter behavior or change the workplace.”

A recent meta-analysis of 492 studies (with a total of 87,418 participants) on the effectiveness of implicit bias training found

weak effects on unconscious bias. The authors note that “most studies focused on producing short-term changes with brief, single-session manipulations” and that most trainings “produced trivial changes in behavior.” The authors conclude that changes in implicit bias are possible, but they do not necessarily translate into changes in explicit bias or behavior, and there is a significant lack of research on the long-term effects.

“Implicit bias trainings raise awareness, but they also tell people, ‘This is just how the brain works,’” says Rachel Godsil, co-founder and co-director of the Perception Institute, an organization that works with social scientists to identify the efficacy of interventions to address implicit bias, racial anxiety and the effects of stereotypes. “It kind of leaves people feeling like they are let off the hook.” It's not that your brain is hard-wired to be racist, but it *is* programmed to put people into categories. And the categories that have been constructed in the U.S., Godsil explains, have meanings that tend to be negative for people from marginalized groups. She emphasizes that part of what it means to unlearn racism is to delink stereotypes from identities and absolute truths: “You're not trying to be color-blind or pretend that these categories don't exist, but you don't presume you know anything about a person based on their identity.”

Antiracism trainings, such as the Undoing Racism Workshop, differ significantly from implicit bias trainings in that they are more intense on both an intellectual and emotional level. Because they are not done in a corporate setting, the discussions tend to be more honest and raw. In the PISAB training I attended, we took a hard look at white supremacy and our role in upholding it. After reviewing a history of racism in the U.S., the trainers discussed individual and institutional racial attitudes, oppression and privilege, and how institutions implicitly or explicitly perpetuate racism. We were empowered to be “gatekeepers”—leaders who can affect change in our workplaces and communities.

PISAB's methodology is rooted in community organizing principles that the group's founders honed for decades. Their approach is based on philosopher Paulo Freire's pedagogy, which focuses on linking knowledge to action so people can make real change in their communities. Other antiracist trainings, such as the one offered by Crossroads Antiracism Organizing & Training, provide a similar approach. In contrast, Robin DiAngelo, author of *White Fragility: Why It's So Hard for White People to Talk about Racism*, who has received much attention in recent months, gives “keynote presentations” that are more focused on individual prejudice and white privilege.

Whereas these trainings can be powerful in many ways, it is unclear to what degree they are effective—and if they are, how and why they work. A 2015 study published in *Race and Social Problems* aimed to measure the impact of PISAB's training and found that approximately 60 percent of participants engaged in racial equity work after completing the Undoing Racism Workshop. “These trainings are well intentioned, but we don't know if they work, because there aren't randomized controlled experiments to prove that they do,” says Patricia Devine, a professor of psychology who studies prejudice at the University of Wisconsin-Madison.

Trainings on implicit bias, diversity and antiracism may be limited in their efficacy in part because they tend to be brief one-

off events. Promising research by Devine in 2013 showed that prejudices and biases can be more successfully unlearned through longer-term intervention. The 12-week longitudinal study was based on the premise that implicit bias is like a habit that can be broken through the following steps: becoming aware of implicit bias, developing concern about the effects of that bias and using strategies to reduce bias—specifically, ones that replace biased reactions with responses that reflect one's nonprejudiced goals.

The researchers argue that the motivation to “break the prejudice habit” comes from two sources: First, you have to be aware of your biases, and second, you have to be *concerned* about the consequences of your biases to be motivated to make the effort needed to eliminate them. Recent research has shown that interacting with a wide variety of racial groups can help people care more about racial justice. For instance, a 2018 review suggested that increased contact among racial groups deepens psychological investment in equality by making people more empathetic.

For Fleming, who has educated thousands of university students, teaching implicit bias within the context of a comprehensive, three-month course “is far more effective than being dragged into a diversity training for an afternoon,” she says. “People have to feel inspired. They have to feel a desire to critically reflect on not just their biases but on their socialization and conditioning and to be part of a positive social transformation. You can't force that on anyone.”

FEELING THE HARMS OF RACISM

THE INSPIRATION that Fleming speaks to is what motivates me to unlearn racism, to reeducate myself on swaths of American history, and to open my eyes to whiteness and white supremacy. But the process of unlearning is only the first step, and it needs to translate into a commitment to practices such as breaking white silence and bringing an antiracist lens to my work. That is only possible, and sustainable, by building empathy and *feeling* the ways in which racism is not just harmful for people of color—it hurts white people, too.

This realization didn't hit me until I took PISAB's workshop for a second time in 2019. I had signed up at the urging of Stoop Nilsson, a social worker and racial reeducation coach who shows white people how to become antiracist leaders in their communities. During the workshop, Barndt, one of the trainers, pointed out how easy it can be for white people to think racism does not harm them. But “the truth is, with racism we lose, too,” he said. “All of humanity loses. With the end of racism, we get our lives back.”

H. Shellae Versey, a critical health researcher and professor of psychology at Fordham University, studies how white supremacy culture impacts the mental health of both white and non-white populations. In a 2019 paper, she and her co-authors explain how white people are harmed by the myth of meritocracy—the idea that working hard and pulling yourself up by your bootstraps leads to success. When this does not happen (for example, if you do not land a promotion you worked hard for), it threatens your worldview and leads to significant stress, research shows.

Versey notes that many white people oppose social health programs such as the Affordable Care Act that would actually benefit them, in part because they believe these programs are designed to benefit people of color. In his recent book *Dying of*

Whiteness, physician Jonathan Metzl writes about how some white Americans support politicians who promote policies that increase their risk of sickness and death.

Another way we are all harmed on a day-to-day basis is through white supremacy culture. As Kenneth Jones and Tema Okun write in the book *Dismantling Racism: A Workbook for Social Change Groups*, the characteristics of white supremacy culture include perfectionism, a sense of urgency, defensiveness, quantity over quality, paternalism, either/or thinking, power hoarding, individualism, and more.

Understanding and *feeling* how racism hurts me—even though it is a mere fraction of the pain people of color experience—is part of what helps me internalize the motivation I need to consistently work to undo it. I wonder if white supremacy culture contributes to my elevated anxiety levels, which manifest as migraine headaches and torn-up cuticles. I am more clearly connecting white supremacy culture with climate change denial as well as the paternalism and overly rigid thinking I have experienced in various jobs.

Working with Nilsson is helping me create a positive racial identity of my own—as both a white person and a Russian Jew. Our country prides itself on being a melting pot, but much gets lost in the assimilation to whiteness and white supremacy culture. Markers of ethnic identity such as language, food, culture and music are discouraged; those from a non-Western European heritage are often vilified. In my family, my parents were so committed to learning English that they hardly ever spoke Russian around the house. I never learned it. It saddens me that I can't speak to my own parents in their native language and that I still know so little about our heritage. Recently my mom became frustrated trying to remember a word in English to describe how she was feeling; I worry that her last words will be in Russian, and I'll have no idea what they mean.

In the midst of COVID-19, a high-stakes election season and racial protest movements that illuminate issues affecting everyone, many Americans are reevaluating what matters most. White people may be waking up to areas of their lives that were previously inaccessible to them and to histories and literature and legacies that have long been excluded from school curriculums. This awakening may lead people to work on creating a positive racial identity away from white supremacy, one based on fully acknowledging the power of whiteness in our society and using that knowledge to pursue equality and justice for everyone. Skipping that step risks giving up or doing even more harm; shame and self-loathing are not effective motivators and can inhibit the strength and stamina needed to push for systemic change.

Having been in this process myself for several years, I am certain of only one thing: that antiracism is a lifelong practice. In her book *Why Are All the Black Kids Sitting Together in the Cafeteria?*, psychologist Beverly Daniel Tatum compares racism to smog, writing that it is something we all breathe in; no one is immune to it. Attempting to unlearn racism has meant becoming aware of each inhalation—and doing my best to exhale less of it. ■

FROM OUR ARCHIVES

Automating Bias. Virginia Eubanks; November 2018.

scientificamerican.com/magazine/sa