

CHAPTER 3

## Scientific Priestcraft

*Deciding that races could be improved, scientists looked for ways to improve their own*

The past is built of the things we choose to remember.

The Max Planck Society, with its administrative headquarters in Munich, Germany, has an illustrious history. It has produced eighteen Nobel Prize winners, including the theoretical physicist Max Planck, after whom it's named. Its institutes employ more than 14,000 scientists, have an annual budget of 1.8 billion euros, and produce more than 15,000 published scientific papers a year. By any standards it's one of the most prestigious science organizations in the world. But in 1997 the biologist Hubert Markl, then president of the society, made a decision that would threaten the reputation of his entire establishment. He wanted to scratch beneath its glorious history to reveal a secret that had been hidden for fifty years.

Before 1948 the Max Planck Society existed in an earlier incarnation, the Kaiser Wilhelm Society for the Advancement of Science. Established in the German Empire in 1911, it was as important then as the Max Planck Society is now, cementing Germany's place in modern scientific history. Albert Einstein did some of his research at one of its institutes, as did other geniuses of the time. But it was later, as the Nazis took power and began to set in motion their own scientific priorities, that things took a disturbing turn.

Whatever had gone on was quietly forgotten after the Second World War, although of course there were always rumors. Researchers were involved in scientific operations under the Third Reich, the whispers suggested, maybe even were party to murder and torture. They must have been. Under the Nazi regime, notes the writer James Hawes, half of the nation's doctors were Nazi Party members. For a decade, German universities taught racial theory.

There was undoubtedly a story to be uncovered, but it was thought wiser to leave it alone. By the Max Planck Society's own admission, there was a tradition of glossing over its ignominious past in favor of celebrating its greater scientific achievements. By the 1990s, though, there was too much pressure from the public to ignore it any longer. And anyway, older members of staff who had been alive during the war—who might be affected by such revelations—had almost all died. The time had come. So Markl resolved to lift the lid and appointed an independent committee to investigate what German scientists at the Kaiser Wilhelm Society might have done during the war.

It would be a survey into the very darkest corners of race science.

It was already clear that figures from within science and academia must have played a role in developing Adolf Hitler's ideology of racial hygiene, which argued that those of pure, "Aryan" racial stock should be encouraged to breed, while others were gradually eliminated—an ideology that culminated in the Holocaust. In hindsight, it couldn't have been done without scientists, both to provide the theoretical framework for such an audacious experiment and to carry out the job itself. On the practical side, there would have been those setting up concentration camps and gas chambers, as well as determining who should die. And then there were all the gruesome human experiments known to have been carried out on people who eventually were killed, and plundering them for biological data. Younger researchers at the Max Planck Society worried that the body of scientific work they had inherited might bear bloody stains.

They were right to worry. The past turned out to be dripping with blood. Within a few years of Markl's launch of the investigation, historians began publishing their findings, and they were devastating. Some had assumed that the Nazis were ignorant of or hostile towards science. Historical research proved this wasn't true. The Kaiser Wilhelm Society's scientists had willingly cooperated with the Nazi state, marrying academic interests and political expediency, helping to secure financial support and social standing for themselves. "Such research not only literally built on the spoils of war, it also led scientists deep into the abysses of Nazi crimes," wrote a reviewer. At least one prominent scientist helped draft and disseminate the legislation around racial ideology.

Those who weren't opportunistic were often complicit, displaying moral indifference even when they saw inhumane or criminal acts taking place right in front of them. When moves began in 1933 to expel Jewish scientists from the Kaiser Wilhelm Society (Einstein abandoned Germany that same year, leaving for a conference and wisely never returning), staff made little effort to stand in the way. At least two of

the society's scientists and two other staff members ended up dying in concentration camps.

And then there were those who wholeheartedly supported the Nazis from the beginning. The work of Otmar von Verschuer, head of department at one of the Kaiser Wilhelm Society's institutes, makes for chilling reading. Until the war von Verschuer was a widely respected academic; his research on twins as a way of understanding genetic inheritance had been funded for a few years by the Rockefeller Foundation, in New York. He was even invited to speak at the Royal Society in London. But he was also, it transpired, an anti-Semite who openly praised Hitler and believed in a biological solution to what he saw as Jews' threat to racial purity. According to the American anthropologist Robert Wald Sussman, von Verschuer became one of the Nazis' race experts when it came to addressing the "Jewish question," actively legitimizing the regime's racial policies. One of his former students, the doctor Josef Mengele, went on to become infamous for his cruel experiments on twins and pregnant women at Auschwitz concentration camp. Marek Kohn, a British writer, documented in *The Race Gallery* (1995) that among the samples that von Verschuer had sent to him from Auschwitz were "pairs of eyes from twins . . . dissected after their murder . . . children's internal organs, corpses and the skeletons of murdered Jews."

In 2001 the Max Planck Society at last accepted responsibility for historic crimes committed by its scientists. In its apology the society admitted, "Today it is safe to say that von Verschuer knew of the crimes being committed in Auschwitz and that he, together with some of his employees and colleagues, used them for his purposes." Markl added in his speech, "The Kaiser Wilhelm Society tolerated or even supported research among its ranks that cannot be justified on any ethical or moral grounds. . . . I would like to apologize for the suffering of the victims of these crimes—the dead as well as the survivors—done in the name of science."

This came too late for justice, of course. Those involved had died already. What was remarkable was that it had taken so long to root out the facts of what happened at the time, or even to find the will to do it. Scientists complicit with the regime had been skilled at covering their tracks, evidently. But maybe it was also easier for their colleagues to pretend that fellow scientists couldn't possibly have been active participants in murder and torture. Perhaps, they imagined, they were just bystanders, caught up in the mess while trying to do get their work done.

The truth—that it is perfectly possible for prominent scientists to be racist, to murder, to abuse both people and knowledge—doesn't sit easily with the way we like to think about scientific research. We imagine that it's above politics, that it's a noble, rational, and objective endeavor, untainted by feelings or prejudice. But if science is

always so innocent, how is it that members of such a large and prestigious scientific organization could have sold themselves to a murderous political regime as recently as the middle of the twentieth century?

The answer is simple: Science is always shaped by the time and the place it is carried out in. And ultimately it is at the mercy of the personal political beliefs of those carrying it out. In the case of some Nazi scientists, particular experiments may have been conducted perfectly accurately and rigorously. They may even have produced good science, if goodness is measured in data and not human life. Other times researchers just didn't care about the truth or other people's lives, choosing instead to give the illusion of intellectual weight to a morally bankrupt ideology because it suited them.

Now, decades later, the horrors of World War II still have a warping effect on how we think about race science. Many of us choose to remember Nazi scientists like Otmar von Verschuer as some kind of uniquely evil exception, nothing like scientists who found themselves on the winning side of the war. The Holocaust and the twisted scientific rationale behind it are thought to belong to that time and place alone, to be purely the work of “the bad guys.” But there was one question that went unanswered after the investigations into the blood-stained history of the Max Planck Society: Were scientists in the rest of the world so blameless?

To define what happened during the war as aberrant—as something that could only have been done by the worst people under the worst circumstances—ignores the bigger truth. This was never a simple story of good versus evil. The well of scientific ideas from which Hitler and others in his regime drew their plans for “racial hygiene,” leading ultimately to genocide, didn’t originate in Germany alone. They had been steadily supplied by race scientists for more than a century from all over the world, supported by well-respected intellectuals, aristocrats, political leaders, and women and men of wealth.

Among the most influential of them all, as far as the Nazi regime was concerned, was a pair of statisticians working not in Germany, but in the famous old literary quarter of London, in Bloomsbury, at 50 Gower Street.



“You have biologists who say there is no such thing as race, we need to get over it, forget it,” Subhadra Das tells me in an angry whisper. “But then, if there is no such thing, why did you just say ‘race’? Where did that idea come from?”

Das is a curator of the University College London Medical and Science Collections. She moonlights occasionally as a stand-up comedian, her dark wit betraying a fury fed by the things she’s learned from her research. We’re in the heart of Bloomsbury,

recognizable by its peaceful garden squares and smart Georgian townhouses. Once a meeting point for artists and writers, including Virginia Woolf, it is still home to a large slice of London's universities and colleges. Outside, Gower Street is jam-packed with students getting to lectures, but where Das and I are is library quiet. We're seated at a small table inside the Petrie Museum, named for Sir Flinders Petrie, an Egyptologist who, before he died in 1942, used to collect heads from around the world to shore up his ideas of racial superiority and inferiority.

"Scientists are socialized human beings who live within society, and their ideas are social constructions," she says. She wants me to hear this, setting the scene before she begins unfolding the packets of objects in front of us, which she has pulled from the archive. Among the first is a black-and-white photograph of a well-dressed older man, his bushy eyebrows resting in a canopy over his eyes, long white sideburns trailing down to his collar. Underneath is his autograph: it is the biologist Francis Galton, a young cousin of Charles Darwin who was born in 1822. Galton, she tells me, is the father of eugenics. He coined the term in 1883, from the Greek prefix *eu-* for "well" or "good," to describe the idea of using social control to improve the health and intelligence of future generations.

Galton considered himself an expert on human difference, on the finer qualities that make a person better or worse. If not quite the genius that Darwin was, he certainly aspired to be. "I find that talent is transmitted by inheritance in a very remarkable degree," he had once written in an essay titled "Hereditary Character and Talent." His logic, drawing on his cousin's theories of natural selection and the survival of the fittest, was that a race of people could be improved if the most intelligent were encouraged to reproduce and the stupidest were not—the same way you might breed a fatter cow or a redder apple. Some saw it as a way of artificially speeding up human evolution, driving the race closer to mental and physical perfection.

As an example, he drew on the fact that brilliant writers were often related to other brilliant writers. He noted that of 605 notable men who lived between 1453 and 1853, one in six were related to another member of the same group. The ingredients for greatness must be heritable, he reasoned, choosing to overlook that their being notable might be a product of wealth and connections. "If a twentieth part of the cost and pains were spent in measures for the improvement of the human race that is spent on the improvement of the breed of horses and cattle, what a galaxy of genius might we not create!" Galton dreamed of a "utopia" of highly bred superpeople, and he made creating such a perfect society his lifelong mission.

The first challenge would be to measure people's abilities, to build up a bank of data about who exactly were the most intelligent and who the least. In 1904 he convinced

the University of London to set up the world's first Eugenics Record Office at 50 Gower Street, dedicated to measuring human differences, in the hope of understanding what kind of people Britain might want more of. University College, London, jumped at the chance, replying to his request within a week. After a short time it became known as the Galton Laboratory for National Eugenics.

The word "eugenics" is no longer used around here. Long after Galton's death, his laboratory was renamed the Department of Genetics, Evolution and Environment; it is now housed in the Darwin Building. And this is where Subhadra Das steps in. Among the vast collection of objects she is responsible for at the university is Galton's personal archive, which contains his personal photographs, equipment, and papers—documents that track the genesis and development of eugenics. Das also looks after objects that belonged to Galton's close collaborator, the mathematician Karl Pearson, who became the first professor of national eugenics in 1911, after Galton died. "Pearson's greatest contribution, the thing that people remember him for, is founding the discipline of statistics. A lot of work on that was done with Galton. "Galton, if you're going to bring his science down to anything in particular, is a statistician," Das tells me.

But before he settled down into science, Galton had been an explorer. He was lavishly funded by the estate of his wealthy father, who had made a fortune from the slave trade and later, when the slave trade was prohibited, from gun manufacturing and banking. An expedition to Namibia in 1850, then known as Damaraland, earned Galton a medal from the Royal Geographical Society. Always proud of his appearance (a hand mirror and sewing kit are among his personal possessions in the collection), he donned a white safari suit, becoming one of the first to cultivate what is now the classic image of the white European in Africa. "If I say to you 'African explorer,' the picture that pops into your head? That's him," Das tells me.

What was unusual about Galton was that travel failed to broaden his mind. "A lot of white Europeans, on going to Africa and living cheek by jowl with African people, tended to change their opinions," she says. "Galton didn't. If anything, his racist assumptions were made stronger by his time in Africa." As Galton told the Royal Society on his return, "I saw enough of savage races to give me material to think about all the rest of my life."

In London, racism combined in his scientific research with a passion for data. Galton was obsessed with measuring things, once using a sextant to size up an African woman's proportions from a distance. Another time he came up with the mathematical formula for the perfect cup of tea. Through eugenics he saw a way of using what he thought he knew about human difference, shored up by Darwin's theories of

natural selection, to systematically improve the quality of the British race. “Darwin said that humans are animals like any other animal. Galton said, well, if that’s the case then we can breed them better,” Das explains. “What he was concerned about was what he saw as the degeneration of the British race and how that could be prevented and improved.

“You have to call Galton a racist because the work that he did is fundamental to the story of scientific racism. So not only is he a racist, he is part of the way we invented racism, and the way that we think about it.”



Eugenics is a cold, calculated way of thinking about human life, reducing human beings to nothing but parts of the whole, either dragging down their race or pulling it up. Yet somehow it seemed to make sense at the time, with a logical appeal that stretched across the political spectrum. We associate it today with the fascists who perpetrated the Holocaust, but before World War II, many on the left saw it as socially progressive. Galton himself was certainly not considered a crank. He was a fellow of the Royal Society, and an anthropometric laboratory he set up in 1884 to catalogue people’s measurements enjoyed support from the British Medical Association. Eugenics belonged firmly to establishment science, and among intellectuals, it wasn’t just mainstream, it was almost fashionable.

The fly in the ointment was how to make eugenics work. Galton’s observation was that the poor seemed to be outbreeding the rich, and the poor were poor for the simple reason that they were congenitally unfit. Responsible action needed to be taken to address the problem and ensure genetic progress. On the one hand, the rich needed to step up their baby-making game. On the other, society’s dregs, particularly those described as mentally feeble or physically weak and criminal types needed to be convinced to have fewer children. Managing reproduction was the linchpin of eugenics, even attracting a fan in the English women’s rights activist and birth control pioneer Marie Stopes. To support her first clinic, Stopes founded the Society for Constructive Birth Control and Racial Progress.

The philosopher Bertrand Russell suggested that the state might improve the health of the population by fining the “wrong” type of people for giving birth. Eugenics was more than a theory—it was a plan in search of policymakers. Winston Churchill, then first lord of the Admiralty, was welcomed as vice president at the first International Eugenics Congress, held at London’s grand Hotel Cecil in 1912. Other vice presidents included the lord mayor of London and the lord chief justice. Dele-

gates came from all over Europe, Australia, and the United States, including from Harvard and Johns Hopkins Universities.

Yet despite all the support eugenics attracted from politicians and intellectuals, the field never managed to gain a firm toehold in Britain. It fell short of being implemented by the government.

The same wasn't true in the United States. The state of Indiana passed the world's first involuntary sterilization law in 1907, informed by eugenicists who argued that criminality, mental problems, and poverty were hereditary. More than thirty other states soon followed, with enthusiastic public backing. In 1910 a Eugenics Record Office was established at Cold Spring Harbor on Long Island, with support from the oil industry magnate John D. Rockefeller and, later, funding from the Carnegie Institution of Washington. Its board of scientific directors included the inventor of the telephone, Alexander Graham Bell, and the economist Irving Fisher. The hardware behind at least one of the United States' most ambitious eugenics projects came from none other than IBM, the same company that went on to supply the Nazi regime in Germany with the technology it needed to transport millions of victims around concentration camps.

By 1914 the word "eugenics" was being used with such abandon that it had almost become synonymous with being healthy, Roswell H. Johnson, a professor of eugenics, complained in the *American Journal of Sociology*. "A school for sex education is called a school of eugenics. Even a milk and ice station has been similarly designated," he grumbled.

As all this went on, a few couldn't help but notice the holes in this grand idea. It was a slippery slope. Henry Maudsley, a psychiatrist, pointed out that privilege and upbringing could surely more accurately explain why some people were successful and others weren't. He noted that many remarkable people, including William Shakespeare, had unremarkable relatives. Another vocal critic of eugenics was the biologist Alfred Russel Wallace, who had come from humble beginnings to become an important and well-loved researcher and was credited with coming up with the theory of evolution by natural selection at the same time as Darwin. "The world does not want the eugenicist to set it straight," he warned. "Give the people good conditions, improve their environment, and all will tend towards the highest type. "Eugenics is simply the meddlesome interference of an arrogant, scientific priesthood."



In its early days, particularly for its mainstream supporters, eugenics focused on improving the racial stock by weeding out those at the margins: the feeble-minded,

the insane, and the disabled. But as time wore on the umbrella inevitably expanded. Karl Pearson, who succeeded Galton as the main force behind eugenics after the latter's death in 1911 and shared his views on race, believed that since other races were inferior to his own, intermixing was also dangerous to the health of the population. By this logic the very existence of these other races represented something of a threat. "Pearson's argument is that if you have uncontrolled immigration the welfare of British people is at stake," Das tells me.

At this point, she pulls out another object from the archive. It's a narrow tin box resembling a cigarette case but twice as long. It was brought to London by Pearson, but was designed by Eugen Fischer, a German scientist who had been director of the Kaiser Wilhelm Institute of Anthropology, Human Heredity, and Eugenics. The box still bears Fischer's name. Inside are thirty locks of artificial hair in a neat row, ranging in color from bright red hair at one end to blond in the middle (numbers 19 and 20), then light brunette, and kinky black hair (number 30) far at the other end. At first glance it looks innocuous, like a color chart you might find at the hairdresser's. But the disturbing story behind it is betrayed by the order in which the hair samples are placed. The most desirable colors and textures have been placed in the middle and the least acceptable at the margins. This simple little gauge tells a story of pure horror.

"Fischer used this device in Namibia in 1908 to establish the relative whiteness of mixed-race people," she says. In what is now remembered as the first genocide of the twentieth century, in the four years of the run-up to 1908, Germany killed tens of thousands of Namibians when they rebelled against colonial rule. According to some estimates, up to three thousand skulls belonging to members of the Herero ethnic group were sent back to Berlin to be studied by race scientists. "Namibia was the first place where the Germans built a concentration camp. Depending on where your hair fell on the scale was the difference between life and death." Similar methods would be used again a few decades later. Fischer's work informed the Nuremberg Laws of 1935, which outlawed intermarriage between Jews and blacks and other Germans. He became a member of the Nazi Party in 1940.

Das takes out another box that had belonged to Pearson, this one containing rows of glass eyes in different colors, framed in aluminum eyelids so eerily real that I fear one of them might blink. They are prosthetics of the kind that would have been fitted in patients who had eyes missing. In the context of eugenics, though, they served another purpose. "This object, I have seen its twin brother on display in an exhibition about race hygiene in Germany at the Berlin Museum of Medical History at the Charité. This device was appropriated by Nazi scientists and, again, used to judge or measure race, particularly in Jewish people," she explains. "You'll find photographs of

Nazi scientists measuring people's heads, measuring people's noses, matching their eye color."

The eye and hair color charts reveal just how slippery the dogged mantras of rationality and objectivity can be when it comes to studying human difference. "Any scientist who claims that they are not politicized, or that they are asking questions out of pure curiosity, they are lying to themselves," she continues. "The structure in itself is fundamentally, structurally racist, because it has always been taken it at its face. Never going back and taking apart those underpinnings." What does it matter if one person has black hair and brown eyes, and another has blond hair and blue eyes? Why not compare heights or weights or some other variable? These particular features matter only because they have political meaning attached to them.

In the first decades of the twentieth century, all over the world, eugenics began to be conflated with old nineteenth-century ideas about race. In Japan, during the Meiji period, the thinker and politician Katō Hiroyuki used Darwinism to make the point that there was a struggle for survival between different nations. In China in 1905, the revolutionary Wang Jingwei argued that a state made up of a single race was stronger than one comprising multiple races. Other Chinese politicians advocated sterilization as a means of human selection, and racial intermarriage to produce children with whiter skins. Historian Yuehtsen Juliette Chung has noted that during this time, "China seemed to accept passively the notion of race as the West understood it."

In India, too, European notions of racial superiority were easily absorbed by some, partly because they mirrored the country's existing caste system—itself a kind of racial hierarchy—but also because Germany's Aryan myth placed the noble race as once living in their region. The ideological quest for the true "Aryans" remains alive in India, and Adolf Hitler's *Mein Kampf* is a bestseller in Indian bookshops. Each nation used the idea of race in its own ways, marrying it with science if it could be of use. Eugenics, then, became just another tool in what were longstanding power dynamics.

In the United States, arguably the most racially charged place in the world at the time, evolutionary theory and eugenics came along at just the moment that intellectual racists could deploy them to full effect. When the Eugenics Record Office was opened at Cold Spring Harbor, New York, a news item in the journal *Science* announced that one of the purposes of the new office would be "the study of miscegenation in the United States," the mixing and intermarriage of different racial groups. Immigration into the US from countries considered to be undesirable had already been curbed by the 1882 Chinese Exclusion Act, the country's first major law restricting immigrants. Twelve years later, three Harvard College graduates, lobbying in favor of a literacy requirement for those who wanted to come to the United States,

formed the Immigration Restriction League. The group's secretary, Prescott Farnsworth Hall, used Darwin's ideas on natural selection to argue against "undesirable" immigrants who weren't "kindred in habits, institutions and traditions to the original colonists." In a lengthy racist tract in *Annals of the American Academy of Political and Social Science* in 1904, he wrote, "The doctrine is that the fittest survive; fittest for what? The fittest *to survive in the particular environment in which the organisms are placed*" (Hall's emphasis).

By 1907 riots in Bellingham, Washington, saw hundreds of white men, themselves recent arrivals from Europe, attack Indian immigrants who lived in the city, blaming their "filthy and immodest habits." Reportedly, seven hundred Indians had to flee. The local *Bellingham Herald* editorialized, "The Hindu is not a good citizen. It would require centuries to assimilate him, and this country need not take the trouble."

It was against this backdrop that a new ideologue emerged. In 1916 a wealthy American law graduate named Madison Grant published a book that took eugenics to another level. Grant was known as a conservationist: as one of the founders of Bronx Zoo in New York, he had lobbied to put the Congolese Ota Benga on display among the apes there in 1906. Grant wasn't a scientist, but he recognized the power of the language of science. In *The Passing of the Great Race: or The Racial Basis of European History*, he continued the legacy of Count Arthur de Gobineau from the previous century, pushing forward the myth of Aryanism. Grant proposed that a blond, blue-eyed Nordic "master race" represented the Aryans' true descendants.

His racial hierarchy was geographically specific. Everyone who wasn't northern European was consigned to an inferior status, including Italians and Greeks, who at that time were considered an undesirable immigrant group in the United States. Grant warned against racial intermixing in the belief that this would damage white racial purity even further. As casually as a biologist writing about plant hybrids, he wrote that a cross between any member of a European race and a Jew is a Jew.

In Grant, wealth and racism formed a toxic combination. As someone descended from some of the first European colonists to settle in America, he of course counted himself among the descendants of Aryans, a noble race under threat. Openly in favor of both slavery and segregation, he made every possible effort to cut immigration to the United States from anywhere but northern Europe. And he had powerful supporters, including Theodore Roosevelt, soon to be president. Grant became vice-president of the Immigration Restriction League in 1909, and Roosevelt was also a member. In 1921 Grant was the treasurer at the Second International Eugenics Conference in New York.

It took only the slightest interrogation for Grant's historical and scientific evidence to be exposed as dodgy and self-serving. One reviewer of Grant's book raised an eyebrow at his claim that the Italian artists Dante, Raphael, Titian, Michelangelo, and Leonardo da Vinci were of the Nordic type, and that—stretching the geographical parameters even further—so was Jesus. But the views of experts didn't matter to many of Grant's readers. His fake assertions were enough for those looking for what they wanted, some seemingly intellectual support in their opposition to immigration.

Two parallel ideologies had by now firmly intertwined in the minds of racists. One, the decades-old concept of the existence of a superior race. The second, informed by eugenics, that unless checked, inferior races would outbreed superior ones. Human variation had gone from being, before the eighteenth century, a jelly-like set of loose generalizations to a hard matter of progress and struggle. Grant's work was referenced by the Ku Klux Klan. It also became one of the inspirations behind the Immigration Act of 1924, which set quotas according to nationality aimed at decreasing immigration from southern and eastern Europe, including Italy, Greece, and Poland, as well as effectively barring anyone from Asia.

And his work earned one lifelong fan in Germany. In a fawning letter to Grant about *The Passing of the Great Race*, Adolf Hitler wrote, "The book is my bible."



It was all so long ago—we imagine that it's well and truly over now. We think of the horrors of the Holocaust and earlier genocides, of slavery and colonialism, of the many millions who were killed, of the twisted logic behind these actions, as belonging to another time. We imagine that the end of World War II spelled an abrupt end for race science. Eugenics is a dirty word. We're enlightened now. We're wiser.

But the story doesn't end quite so quickly. Although they may have tempered their politics, race scientists didn't simply disappear after the war. Those who had built their work around eugenics and studying human difference, who staked their careers on these studies, just found new avenues.

Take Otmar von Verschuer, who had plundered the tiny bodies of Auschwitz victims for his twin studies during the Holocaust: after being banned from teaching temporarily, in 1951 he became professor of human genetics at the University of Münster. Many scientists similarly changed tack, gently maneuvering themselves out of eugenics into allied fields that studied human difference in less controversial and more rigorous ways, such as genetics. Many stopped using the word "race" altogether.

Science learned at least one lesson: if scientists wanted to study human variation, they had to try to stay away from politics.

But the shift didn't happen abruptly. The Eugenics Record Office on Gower Street in London survived all the way through the war. There is still a Galton Professor of Genetics at University College London, funded by the money Francis Galton left to the institution. What was once the Eugenics Society became the Galton Institute in 1989. In 2016 the institute established the Artemis Trust, which according to its promotional leaflet, handed to me at a conference, distributes grants of up to £15,000, partly with the aim of assisting in the provision of fertility control, particularly to those from "poorer communities."

Subhadra Das tells me that a woman came to see her recently whose mother had worked in the Galton laboratory in the 1950s. Her job had been to study redheadedness in Wales. It took until the 1960s for the word "eugenics" to stop being heard in these corridors. What actually helped kill it in the end wasn't just the war but also the fact that new research showed it couldn't actually work. The genetics around inheritance, once it was better understood, didn't support the idea that humans could breed themselves to perfection, whatever perfection meant. The way we inherit traits from our parents turns out to be more complicated than Galton imagined. There is actually no guarantee that two beautiful and brilliant parents will produce brilliant and beautiful kids. Genetics is bit more of a crapshoot.

Yet eugenics policies introduced to other parts of the world took decades to be shut down. Only in 1974 did Indiana repeal legislation that had made it legal to sterilize those it considered undesirable. Investigations by the reporter Corey Johnson in 2013 uncovered that doctors working for the California Department of Corrections and Rehabilitation had continued the practice, sterilizing as many as 150 women inmates between 2006 and 2010, possibly by coercing them into having the procedures. In Japan, a Eugenic Protection Law that was introduced in 1948 to sterilize those with mental illness and physical disabilities and prevent the birth of "inferior" offspring was stopped only in 1996. Victims of the legislation are still pushing for justice.

The process of self-examination, of experiencing regret and showing remorse—the kind attempted by the Max Planck Society in 2001—is slow. And it has been particularly slow in the places that found themselves on the winning side of World War II. In the decades after the war, scientists in Britain and the United States airbrushed away their pivotal role in race science and eugenics. Scientists quietly moved into other fields, silently renamed their university departments, consigning to the past that dark chapter. History was rewritten by the victors.

According to Gavin Schaffer, a professor of British history at the University of Birmingham and the author of *Racial Science and British Society, 1930–62*, “It was much easier to point the finger at the horrible Nazis, and the same went for the scientists. This absence of introspection was rooted in the ability to point fingers at other people for being responsible for the perversion of science.”

The postwar narrative of good triumphing over evil glossed over the messier truth: that in fact everyone who pointed a finger at others should have pointed a finger at themselves. Without ever really looking back to the past and asking how and where the idea of race had been constructed in the first place, why it had been relentlessly abused—without questioning the motives of scientists such as Francis Galton, Karl Pearson, and countless others—in this glaring “absence of introspection,” old ideas of race could never completely disappear. Even long after the war, scientific fascination with human variation remained tainted by a lingering belief that there might be something deeper about racial difference, that perhaps some races really are better than others.

Yes, some good science emerged from the ashes. Biology did attempt to reform itself, to cast away the mistakes of the past and do a more precise and accurate job of understanding human variation. But at the same time, while the world around them changed, a few of the hardened old-school race scientists could still be found knocking about. “Racist science continues; it just becomes more marginal,” Schaffer tells me. “But there’s no doubt that it does continue.”