

# How *Nature* contributed to science's discriminatory legacy

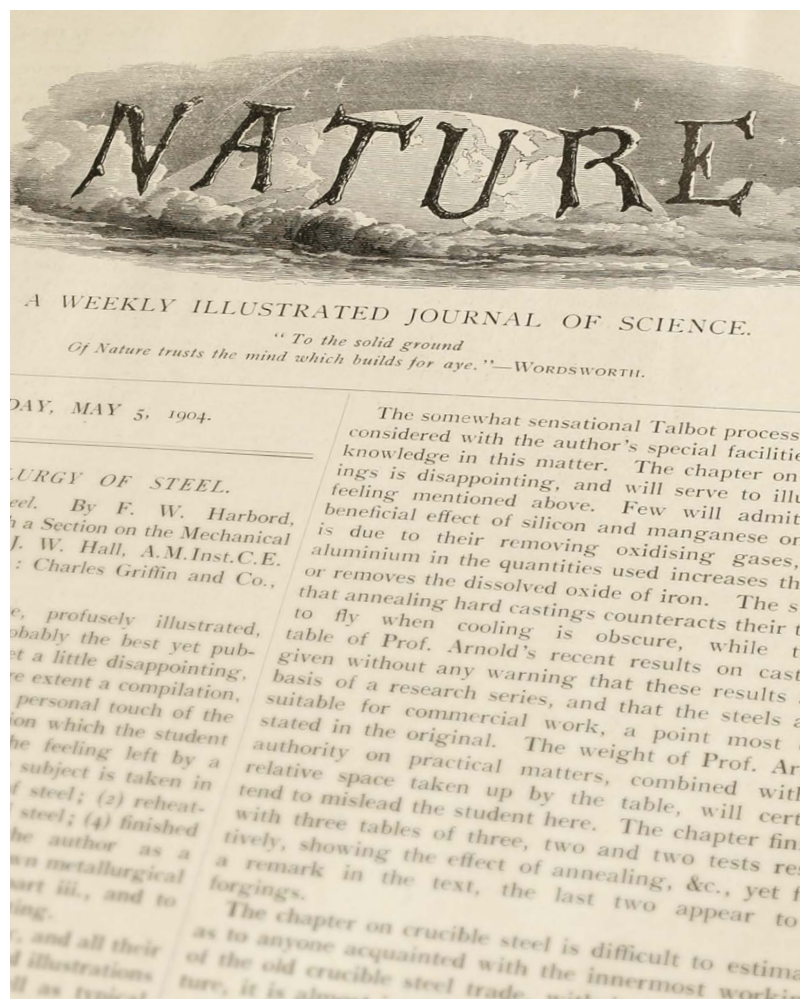
We want to acknowledge – and learn from – our history.

In 1904, *Nature* printed a speech about eugenics by the statistician Francis Galton. One of the foremost scientists of his day, Galton defined eugenics as “the science which deals with all influences that improve and develop the inborn qualities of a race”. He said that “the aim of eugenics is to represent each class or sect by its best specimens, causing them to contribute more than their proportion to the next generation”.

Galton's scientifically inaccurate ideas about eugenics had a huge, damaging influence that the world is still grappling with. The idea that some groups – people of colour or poor people, for example – were inferior has fuelled irreparable discrimination and racism. *Nature* published several papers by Galton and other eugenicists, thus giving a platform to these views. At the time, eugenics “was an active area of research and considered a very legitimate one”, says Melinda Baldwin, a historian at the University of Maryland, College Park, who wrote *Making Nature*, a 2015 history of the journal. *Nature*, she says, “helped to spread eugenic doctrine by publishing those scientists”.

Galton's papers are part of a shameful seam running through *Nature's* history. Since its founding more than 150 years ago, this journal has developed a reputation for publishing some of the world's most important scientific discoveries. But we have also published material that contributed to bias, exclusion and discrimination in research and society. Some of our articles were offensive and harmful, a legacy we are now making an overdue effort to examine and expose. They contrast starkly with the journal's current goal of fostering equity, diversity and inclusion.

We have been examining *Nature's* history in the lead up to a forthcoming special issue on racism in research, to be published next month. We promised to do this in 2020, after the killing of George Floyd by police in Minneapolis, Minnesota, triggered a wave of protests over the harms caused by systemic racism. Four guest editors (Melissa Nobles, Chad Womack, Ambrose Wonkam and Elizabeth Wathuti) who are guiding our special issue have highlighted the importance of scientific institutions acknowledging the ways in which their histories have compounded systemic racism – and although this



In 1904, *Nature* published papers on eugenics by Francis Galton.

**“We commit to working harder to ensure that the research we publish does not cause harm.”**

editorial is not a comprehensive account of the journal's contributions to racism and other problematic legacies of science, it is a start.

This is not just a problem in *Nature's* deeper history. In more recent years, we have also, to our shame, published some articles that were offensive or destructive, or attracted criticism for being overly elitist. “The scientific journal, back in the day, was the mouthpiece to a very privileged and highly exclusive sector of society, and it is actually continuing to do the same thing today,” says Subhadra Das, a science historian and writer in London who has researched scientific racism and eugenics.

We know that *Nature's* archives contain numerous items that are harmful and can be upsetting. But, like other scholarly publishers, we think it is important to keep all of our content accessible, because it is part of the scientific and historical record. It is important for researchers today and in the future to study and learn from what happened in the past. That said, we are developing a way to alert readers that our archive contains articles that do not represent our current values and would be unacceptable to publish today. *Nature* will not shy away from publishing rigorous research,

even if it is controversial. But research and researchers are part of broader society, and we commit to working harder to ensure that the research we publish does not cause harm. We also pledge to publish guidance on improving inclusion and ethics in research collaborations, and on how authors need to consider sex and gender reporting in study design.

### Exclusive club

*Nature* was founded in 1869 by astronomer Norman Lockyer and publisher Alexander Macmillan. It was designed to publish contributions from an exclusive club of Victorian, British men who made up the scientific establishment, and explicitly aimed to put control of information about science in their hands. It was targeted at an elite readership of educated men, and soon came to focus only on scientists.

For decades, *Nature's* editors were part of, and nurtured, this clique. Arthur Gale and Lionel 'Jack' Brimble, who between them edited the journal from 1939 to the 1960s, oversaw the "clubbiest era", Baldwin says, publishing articles mainly from the laboratories they knew. "A lot of editorial decisions were made over drinks at the Athenaeum," she says, referring to what was an influential London members' club where they networked. The journal matured as Britain became the biggest colonial power in history – by 1919, the British Empire spanned roughly one-quarter of the world's land and population. In their contributions, many scientists editing and writing for *Nature* endorsed the views of white, European superiority that drove this empire building. An air of imperiousness, imperialism, sexism and racism permeates many articles in *Nature's* historical archive.

Among these harmful items, the articles from Galton stand out. Although *Nature* was not his primary publisher, it was an important one that spread and legitimized his ideas. Galton argued that humanity could be improved by selectively breeding what he called the most worthy, intelligent, talented people. In 1904, *Nature* published a paper in which he claimed to assess the "distribution of successes and of natural ability" in family members of fellows of the UK Royal Society, and concluded that "exceptionally gifted families must exist, whose race is a valuable asset to the nation".

Eugenics became an international movement supported by some prominent scientists and politicians – "a globally resonant set of ideas", says Saul Dubow, who studies scientific and imperial history at the University of Cambridge, UK. In 1908, *Nature* published a speech by Galton explaining how communities could start their own local associations for "favouring the families of those who are exceptionally fit for citizenship".

*Nature's* second editor, Richard Gregory, who led the journal from 1919 to 1939, actively supported eugenics. He published editorials with objectionable and racist views, such as one in 1921 that stated that "the highly civilised races of Europe and America have centuries of development behind them". It went on to say that "the less advanced races, even of parts of Europe, such as the Balkan Peninsula, are not likely to assimilate these ideals for some time to come". As eugenics was used to justify forced sterilization

programmes in some countries, critics grew louder.

Scientists have now roundly rejected the ideas espoused by Galton and other eugenicists. But such ideas, many argue, "still cast a shadow on everyday life in the 21st century" and "persons suffering from discrimination live in the wake of the general identity-values promoted by eugenics", said the report of an inquiry into the history of eugenics at University College London, which was published in 2020. The university had strong connections with Galton. *Nature*, regrettably, played a part in casting the eugenics shadow.

### Legacy of colonialism

*Nature's* archives also include harmful contributions from the fields of ecology, evolution, anthropology and ethnography, which were inextricably linked with colonial expansion. Another 1921 editorial reflected imperialist and racist views, reporting on a session at a meeting of what was then the British Association for the Advancement of Science "devoted to the discussion of the ways and means by which the science of anthropology might be made of greater practical utility in the administration of the Empire, particularly in relation to the government of our subject and backward races". There are numerous other examples in which *Nature* published offensive, injurious and destructive views, cloaked in the veil of science.

In the 1930s, the journal printed two antisemitic articles by Johannes Stark, a physicist, who wrote of the "damaging influence of Jews in German science". At the time, *Nature* had taken a strong position in opposition to the rise of Nazis in Germany, which eventually led to the journal being banned there. *Nature* implied in an accompanying article that it had invited one of Stark's contributions to show readers how shocking his words were, but it nevertheless exposed a wider audience to antisemitic views.

Sexist articles and attitudes have also appeared frequently in the pages of *Nature*. For decades, men wrote patronizingly in the journal about women, while female authors barely featured at all. And although Lockyer made some efforts to support women in science, for example backing the admission of female chemists to the Chemical Society in London, Gregory, his successor, was an "unrepentant sexist", Baldwin says. In 1906, he described a book by astronomer and writer Agnes M. Clerke as evidence that "the intuitive instinct of a woman is a safer guide to follow than her reasoning faculties".

*Nature* has published hurtful articles even in the past few years. One was an inaccurate, naive editorial about memorials to historical figures who committed abhorrent acts in the name of science. The editorial was damaging to people of colour and minority groups, and the journal apologized for the article's many faults. That experience exposed systemic problems at *Nature* that we are working to correct, including the lack of diversity among our editors and a failure to acknowledge the journal's role in racism. The editorial you are reading is part of our attempt to acknowledge and learn from our troubled deep and recent past, understand the roots of injustice and work to address them as we aim to make the scientific enterprise open and welcoming to all.

“*Nature's* archives include harmful contributions which were inextricably linked with colonial expansion.”