# Decolonising the social statistics curriculum – why it is important

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## Abstract

Decolonizing the curriculum has gained momentum in UK academia in recent years, especially in the social sciences. However, quantitative sections within social science departments have been slow to engage, despite obvious historical links between statistics, Eugenics, racism and the Western colonization of data in the Global South. There is an emerging literature, and notable decolonizing efforts have been made by Radstats members in recent years. I argue that University statistics and methods teaching cannot ignore this dark history and must query links between this history and decolonizing, and how engaging with it can enrich our collective learning.

## Introduction

Decolonising the curriculum began as a student-led movement; it is most often dated back to the 2015 “Rhodes must fall” protests at the University of Cape Town (Sunnemark and Thörn, 2023), where students campaigned for the removal of the statue of the coloniser Cecil Rhodes from their campus. The movement quickly spread across the world, and it continues to grow on British university campuses. Decolonising has roots in the wider Black Lives Matter movement which started over a decade ago in the US in response to the killings of Trayvon Martin, Eric Garner, Rekia Boyd, George Floyd and others. The removal of colonisers and slave traders from their

pedestals symbolises a long overdue reckoning with Western histories of colonialism, racism and white supremacy.

At Universities around the world students have been asking 'why is my curriculum white' and why are there are so few female professors of colour. The decolonising movement has strong representation in the humanities and social sciences but is still lacking representation in STEM subjects, mathematics and statistics.

My engagement with decolonizing began during the 2020 Black Lives Matter rallies in Lancaster. I had just started my new job there as lecturer in Sociology and Social Statistics. Like many cities, Lancaster had joined the global wave of marches responding to the murder of George Floyd by a police officer on 25 May 2020 in Minneapolis. People took the knee every week in solidarity with Black Lives Matter and with the victims of racist violence. One day, demonstrators were forming a human chain that stretched the c. 1 km from Dalton Square in the town centre to St George's Quay on the bank of the river Lune. I joined the chain on Damside street, just opposite a monument named "Captured Africans"; Created in 2005 by Kevin Dalton-Johnson, the monument commemorates Lancaster's historical ties with the trans-Atlantic slave trade. During the Empire, Lancaster was the UK's fourth largest slave port and had profited handsomely from its benefactors' trade in slaves, sugar and mahogany, - a legacy that is still visible in the town's beautiful Georgian town houses and its old warehouses which line St George's Quay. The person next to me in the human chain was a historian and we chatted about Lancaster's colonial history. I was fascinated by the decolonising work my colleague was involved in. A University initiative by staff and students offers regular historical walks in the town that inform participants about Lancaster's links with the slave trade, there are hundreds of decolonising events each month on campus, including reading groups, walks and discussion events. The encounter inspired me to reflect on my own teaching of quantitative methods, which I found was too a-historical, and I wondered why decolonising was still largely absent from the quantitative methods

curriculum, while being well represented in the interpretivist sociology camp.

One possible explanation may lie in misunderstandings among quantitative methodologists of what decolonising means and what it aims to achieve. Shortly after my first encounter with decolonising, I sent a request to the mailing-list of one of the largest quantitative sociology groups in the UK asking if there was interest in a decolonising quantitative methods working group. I received one reply by a senior academic who objected to the idea of decolonising because in their view, statistics was not "colonised" and therefore did not need to be "de-colonised". Their second argument was that statistics uses objective mathematical concepts and that therefore the discipline was immune to colonisation. Their former argument ignores the fact that rather than *being colonised*, the discipline has a well-known history of *being colonisers*, in having been complicit Britain's global colonialism of the early 20th century, and having, through the Eugenics movement of its founders, actively supplied racist, antisemitic and ableist pseudo-justifications for colonialism. Their latter argument reveals a naïve positivist belief in the objectivity of our theories and knowledge, which I doubt many quantitative methodologists today would share. Sociological approaches such as feminism, interpretivism and critical realism have long moved beyond positivist objectivity assumptions and accept that knowledge systems are never values-free.

There is no agreed authoritative definition of what decolonising is. To address some anxieties of sceptics, it might help to offer some thoughts on what decolonising is not: Decolonising is not censorship, it is not an agenda to remove literature, or to remove the teaching of statistical concepts. Decolonizing is also not an attempt to curtail academic freedom, or to tell colleagues what to teach. Decolonising does not try to impose a standardised canon. Decolonising, in my understanding, is about representation, antiracism and about developing a critical understanding of the harms of our societies' colonial legacies and of how colonialism has influenced academic

disciplines and practices down to the statistical concepts we learn and teach every day. Decolonising is about asking critical questions. It has this in common with critical race studies, and QuantCrit, a flavour of critical realism that emphasises antiracism (Demack 2023). Decolonising goes further than critique, its aim is also to increase representation of minoritized ethnicities in academia and to unmake racist and colonialist practices and structures. Decolonising as an intellectual endeavour is not reductive but expansive.

## Knowledge systems, oppression and power

Academic knowledge generation does not happen in isolation, it is never objective, value-free or neutral. This fact has been widely accepted in the quantitative social science community since the emergence of critical realism (Danermark, Ekström and Karlsson, 2019). Universities also do not exist in a vacuum; they are embedded in social, political and economic contexts. They reproduce and maintain power. What knowledge is generated, valued and listened to depends on the political and cultural elite and on markets.

For most of Europe's history, universities have been elite institutions, built by and for society's 1%. In Britain, much of this wealth and power historically derives from colonialism. Many of the wealthy early benefactors and donors of the UK's most elite institutions were colonisers, or their descendants. This legacy is still reflected in many institutions' assets (Pimblott and Booth, 2021; Advisory Group on Legacies of Enslavement, 2022; Gamsu, Ashe and Arday, 2024).

Modern universities have, nevertheless made considerable progress on their paths to inclusivity. Contemporary widening participation efforts have achieved that 38% of 18-year-olds in the UK took up a place at university in 2022 (GOV.UK, 2022, p. 18), 29.2% of pupils who were eligible for free school meals[1], and that the percentage

[1] Eligibility for free school meals is interpreted here as an indicator of economic deprivation, not class.

among Black pupils who attend university has increased by 19% since 2009 (Office for National Statistics, 2022, Branchu and Boliver 2022).

While the above numbers are often used to argue that today's universities are no longer the extremely exclusive bastions for the white British upper class they used to be in past centuries, contemporary research has shown that working class students, those from economically deprived areas and those from minoritised ethnicities still face considerable disadvantage (Yu, Gamsu and Forsberg, 2024). The sizeable attainment gap between Black and other minoritised ethnicities and their white British counterparts in their degree outcomes has been widely reported (Demack, 2023; Richardson, 2018; Richardson, Mittelmeier and Rienties, 2020). Experiences of bullying and discrimination disproportionately affect Black students and those from other minoritised ethnicities, and the curricula taught in lecture theatres and seminar rooms at British universities are still predominantly white and male (Arday, Branchu and Boliver 2022), which is not conductive to equality, diversity and inclusion (EDI).

Paradoxically, universities have a proud tradition of being places of progress and intellectual development. Contrary to what some senior managers seem to believe, universities are not mere degree factories that cater to the demands of capitalist graduate job markets. Universities have historically been places where the status quo is questioned. This is what allows innovation to happen. To avoid reproducing a dusty, oppressive status quo, we need to question hierarchies and power imbalances and our inherited knowledge. This is how we learn. Decolonising is a natural outcome of questioning discriminatory assumptions, power hierarchies and racist biases. If universities are to be progressive, then decolonising is a natural development. The only surprise is that decolonising has not evolved sooner.

Recent years have seen a growing decolonising literature. Colleagues are processing our colonial and colonised histories, have critically analysed curricula in schools (Jagdev, 2022) and universities, and we now also witness a growing engagement with decolonising in quantitative methods and statistics (e.g. Couldry and Mejias, 2023; Zwiener-Collins *et al.*, 2023; Brookfield and Saini 2024 in this issue).

## Eugenics and the dark history of statistics

Many students of statistics are unaware that the discipline's history has a dark side, that it has deep historical entanglements with colonialism, Eugenics, racism and ableism. This topic is not routinely taught on social science methods curricula.

The founding fathers of frequentist statistics were also the original founders of the Eugenics movement (Levy, 2019; Clayton, 2020). Francis Galton, credited for introducing linear regression, also authored in1869 his book "Hereditary Genius" – the leading introduction of Eugenics, precursor discipline to genetics. Eugenics introduced social-Darwinist assumptions and the belief that traits that were considered undesirable should be removed from the gene pool through breeding, for the betterment of humanity. Eugenics was from its beginning fundamentally racist, white supremacist and ableist. Galton's book has many explicitly racist and antisemitic passages. Its chapter "The Comparative Worth of Different Races" is notorious.

Galton's school at the University College London was *the* hub for leading statisticians of the Victorian era. Galton's proteges Karl Pearson and Ronald Fisher, after whom the correlation coefficient Pearson's R and Fisher's exact test were named, were not just world leading statisticians, they were also leading Eugenicists.

Pearson expressed his racist and antisemitic views repeatedly, most notably in "The problem of alien immigration into Great Britain", published in1925 with his assistant Margaret Moul (Moul and

Pearson, 1925). The article stated that other "races", in particular Jews, were inferior to the British "race" in terms of intelligence and physical health and that immigrants should be selected based on whether they were genetically superior to the average majority population.

Figure 1: Francis Galton (right) and Karl Pearson (left) c. 1910

Image credit: National Portrait Gallery (CC BY).

The Eugenics movement spread to the US, where it was picked up by Charles Davenport and Madison Grant, who founded an American Eugenics society. Grant is notorious for his (1916) book "The Passing of the Great Race" – a sort of white supremacist bible. The book was greatly admired by Germany's Nazi leadership in the 1930s. Eugenics has inspired voluntary and forced sterilisation programmes in several

countries, targeted at people with disabilities and ethnic minorities. There is a direct link between Eugenics and the Holocaust.

Many of the statistical concepts we teach today, and even the physical tools we use, were used by their developers to pursue inhumane, racist and ableist agendas. A tangible example is the IBM Hollerith punch card machine, a precursor of the modern computer. The Nazis had contracted IBM to deliver thousands of those punch card machines to be used to process the 1938 German minority census, which collected Jews and other minorities' personal data (Aly and Roth, 2004), thus enabling authorities to round up victims at their homes and deport them to death camps. The Hollerith punch card machine was also used to process the data of victims in concentration camps - Black delivers a chillingly detailed account of this history (Black, 2012).

It is very important to teach this legacy on statistics modules because if we want to become better statisticians, sociologists, scientists, intellectuals, it is not enough to just learn statistical concepts in a-historical isolation. We need to know where the thought processes and tools that we use come from. We need to know better so that we can do better.

Much important work has been done by the Decolonising movement at UK universities in uncovering the racist and ableist legacy of our discipline. As a result, University lecture theatres have been renamed and the colonisers pushed from their pedestals. In 2020, UCL issued a public apology (Clayton, 2020). In Universities across the country, colonisers and Eugenicists are removed from their pedestals and decolonising the curriculum is becoming institutionalised.

## Data Colonialism

A *de-colonial* discussion of colonial histories of Western statistical and data governance in the Global South is long overdue. E.g. it is common knowledge that the first statistics agency in India was

established in the 19th century by British colonial rule for the purpose of gathering economic intelligence for the colonisers (see Kalpagam, 2000). However, this is rarely problematised in British and European statistics and data science classrooms.

More recently, concerns have also been expressed among data scientists about the contemporary colonising of (often personal and sensitive) data from survey participants in the Global South by agencies in the wealthy North (Couldry and Mejias, 2019, 2023; Oosthuizen, 2023). A decolonising perspective highlights important questions regarding the ethics of informed consent where survey data is taken, who the data is taken from, who can access it and who controls the processes of data collection, curation and processing. Concerns have also been articulated over how to ensure ethical data use and processing when administrative data that was not collected for research purposes is linked to other data sources and processed. These are familiar general ethics concerns, but they become more urgent when data is taken from indigenous populations and exported from communities and onto servers outside the country, and where there are power disparities between those the data is taken from and the researchers and agencies that use the data. An evolving literature considers cases where data from the Global South has been taken and exported and then disappears on servers and behind paywalls in Western countries or Asian data hubs (Anonymous, 2016; Couldry and Mejias, 2019). Questions around who controls the data, who has ownership and who profits from it, whether it is at all ethical for data to be commodified, sold and bought, are becoming increasingly urgent in a highly globalised knowledge economy.

Important concerns have also been raised, in the Radstats community and beyond, about biases and discrimination in commonly used operationalisations of ethnicity/ ethnic groups, especially the collapsing of ethnic categories such as white vs non-white, which often obscure white advantage (Demack, 2023). Demack has pointed out that thoughtless, uncritical use of statistics is a contributor to racial bias and ethnic inequalities. Hence, a critical,

reflexive and respectful use of our data and measures that report on ethnicity must be a crucial part of any decolonising efforts.

## Discussion - why should we decolonise statistics teaching?

We cannot learn and use the concepts and techniques of our disciplines meaningfully and responsibly without knowing their histories and the contexts under which they evolved. As data users, statisticians and quantitative methods teachers, we have a responsibility to engage with and discuss the ethical problems of our research, starting with its colonial, racist and ableist legacy.

Best ethical practice in our teaching must include a critical reckoning with where the methods and data that we use come from and we have to be critically aware of persistent colonial thinking patterns and legacies. A decolonising approach is the best suited to ensure best teaching practice because it is critical, collective and non-hierarchical, it offers opportunities for students to take leadership and for us all to take collective ownership of our teaching and learning.

A decolonising approach is also the best avenue to overcome crusted knowledge hierarchies, i.e. what knowledge is deemed worthy of being represented, who gets to speak and who is read, cited and listened to.

There is ongoing debate about whether the removal of the names of colonisers and Eugenicists from buildings and lecture theatres is the best way to decolonise academia. Many of those who argue that colonisers' names should remain in place have not, however, themselves been affected by colonialism, racism and ableism.

Some anxiety has also been expressed by colleagues in the public sphere that decolonising efforts may lead to an elimination of useful concepts, which were discovered by the classic founders of our

disciplines, from curricula and reading lists. However, the opposite is true. Decolonising is not an exercise in censorship. Decolonising, as I understand it, is a form of critical thinking and one way to achieve inclusive and ethical best practice. It is a way forward in acknowledging our statistical heritage critically and it allows students to reflect on where the theories and tools we use come from and what inclusive and decolonial practice could look like.

## Where to start?

Any new approach comes with challenges. At a practical level, questions arise on how to integrate decolonising efforts into our teaching practice. Social statistics modules are busy teaching statistical concepts and techniques which sociology students find notoriously challenging. Finding the space and time on modules to allow for decolonising discussions is a challenge.

On a 2nd year UG module in beginners' level applied statistics which ran for the first time last year, I included new content on the history of Eugenics, and data colonialism and dedicated some space to the works of W.E.B. Du Bois, Harvard's first Black professor and Florence Nightingale, one of the few female statisticians of the early 20th century. But including this new content meant that the class did not progress as far as I would have liked in the application of statistical methods. Nevertheless, the open and insightful discussions module participants had on decolonising were promising.

Decolonising is also a learning curve. There are new literature and concepts to discover and consider, especially scholarship from the Global South that I have been unaware of. But good scholarship is expansive, and a continuation of new discoveries can only be a good sign.

It is also important to keep in mind that decolonising is not an isolated but a collective effort. There are whole curricula to

consider, every degree programme is different and different student cohorts may have varying learning needs.

It is a good start to seek out fellow decolonisers. Check whether your local University already has a staff-student decolonising initiative. If it does, then there is a good chance to find existing reading groups, seminars, perhaps a mailing-list and a community of like-minded people who can learn from each other. I am happy to have found such a community at my institution and at Radstats.

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