Decolonising quantitative research methods pedagogy: Teaching contemporary politics to challenge hierarchies from data

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Abstract
Decolonisation of the curriculum in higher education is a radical, transformative process of change that interrogates the enduring Eurocentric and racist narratives surrounding the production of academic ‘knowledge’. Our key argument is that it is essential for students of politics to understand the authorities and hierarchies exerted through quantitative data. In this article, we show that (1) quantitative methods and data literacy can be an explicit tool in the endeavour to challenge structures of oppression, and (2) there is a need to apply decolonial principles to the teaching of quantitative methods, prioritising the historical contextualisation and anti-racist critique of the ways in which statistics amplify existing micro and macro power relations. To explain how this can be done, we begin with a commentary on the ‘state of decolonisation’ in higher education, its relevance to the subdisciplines of politics, and its application to quantitative teaching in the United Kingdom. We then suggest some guiding principles for a decolonial approach to quantitative methods teaching and present substantive examples from political sociology, international political economy, and international development. These suggestions and examples show how a decolonial lens advances critical and emancipatory thinking in undergraduate students of politics when it is used with quantitative methods.

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Introduction

The ability to understand and interpret data is an essential feature of life in the 21st century: vital for the economy, for our society and for us as individuals . . . Our vision is of a fully data-literate population, able to engage with data and the world in which we live actively and intelligently'. (British Academy, 2015: 3)

Whilst many may not call societies ‘backward’ explicitly today, many theories and practices of development depend on this very assumption. Is this justified? What else does this assume? One interpretation of ‘decolonising the curriculum’ means interrogating such assumptions, models and frameworks for these specific biases. (Sabaratnam, 2017)

We argue that the teaching of quantitative methods is an essential component of anti-hegemonic practice. As such, we build on previous endeavours in which quantitative research has been notably used to advance racial justice. For instance, it was through innovative data visualisation and dissemination methodologies that scholars such as W.E.B. Du Bois challenged negative stereotypes with empirical truth. His novel approach, based on numerical tools, offers a blueprint for making decolonial studies a theme of the social sciences and not just the humanities (Battle-Baptiste and Rusert, 2018). We take inspiration from this nexus, noting that quantitative data are a tool to critique authorities and hierarchies, and pivotal to a decolonial approach for teaching politics.

As such, our article explores how two ostensibly separate initiatives – the project to mainstream quantitative methods teaching and the endeavour to decolonise higher education – can be combined to generate a pedagogical strategy that is effective and opportune for contemporary politics curricula. Our approach is informed by several years of experience teaching quantitative methods to diverse cohorts of undergraduate social science students at various UK higher education institutions. We argue that quantitative methods are an avenue for ‘mainstreaming’ the decolonisation discourse; at the same time, quantitative methods teaching needs to be decolonised. For this, we propose a deeper engagement – in the classroom – with the nature of data, particularly where they come from and what they do.

Data gathering1 is a form of knowledge production. Undergraduate students must be equipped to grapple with the authoritarian, hierarchical, and hegemonic nature of data. Data literacy is thus an explicit tool to critique mainstream social and political discourses around social justice. Drawing on our teaching practice, we centre on two learning outcomes: (1) to understand the power relations that underlie knowledge production, and (2) to describe and critically analyse social data, in secondary as well as primary forms, while acknowledging their biases. We suggest that a decolonial approach to teaching methods should emerge from the following four activities: (1) resisting Eurocentrism in our own teaching, (2) showing how politics and quantitative methods are systematically Eurocentric, (3) integrating race critical thinking in quantitative methods teaching, and (4) encouraging students to create and use data critically.

Our focus is on curricula, but this is not a pedagogical article; instead, we take a hybrid approach to discuss decolonisation and quantitative methods teaching in a theoretical and
a practical context. We share some classroom observations and examples to initiate a conversation on how a decolonial lens may enhance teaching that uses quantitative data.

The remainder of this article is organised into four sections. The next section is a literature review to consider how anti-hegemonic, critical, decolonial perspectives may be affixed to quantitative teaching curricula; for this, we revisit theoretical and methodological assumptions about racial and civilisational hierarchy, and draw attention to the relationship between social position and perspective on various issues, and the needs of increasingly diverse student cohorts. In the section after, we consider the rationale and strategy for mixing quantitative and decolonial approaches to politics curricula. The next section presents some reflections on how critical, decolonial analysis may be advanced through quantitative teaching in politics topics, including comparative political sociology, international political economy (IPE), and international development. The final section concludes.

**Literature review**

The UK universities in which the authors have, over recent years, taught quantitative methods are currently involved – or at least interested – in a broad project to decolonise the curriculum, although this does not apply to the majority (Batty, 2020). As systemic racism and the silencing of Black voices have gained visibility because of global Black Lives Matter protests since May 2020, decolonising the curriculum has come more prominently to the forefront of initiatives for social justice in education (Hall et al., 2021). At a basic level, this project seeks to add marginalised scholarship and critical frameworks into curricula (Bird and Pitman, 2020). More radical iterations seek to overhaul the very idea of higher education (Andrews, 2019). Interrogations of the production and representation of ‘legitimate’ predominantly Eurocentric knowledge (Bhambra et al., 2018) and its implications for pedagogic practice are key to decolonial discussion.

In this article, a ‘decolonial’ approach is one that articulates, uncovers, and challenges linkages between academic knowledge production, dominant knowledge systems, and coloniality (Mignolo, 2007). Recently and increasingly, non-European perspectives are accommodated, but Western epistemologies dominate pedagogy and practice in the social sciences. For curricula, decolonisation must explain what Eurocentrism means – ‘a sustained racial-economic ideology reinforced in modern and contemporary configurations of race and racism’ (Desai and Sanya, 2016: 716) which has historically been conferred power by colonial logics.

Originating largely in South Africa (Heleta, 2016; Le Grange, 2016; Mngomezulu and Hadebe, 2018), the decolonisation of higher education curricula is a growing political and academic project in the United Kingdom, particularly at global and ‘outward-looking’ institutions, including SOAS and the universities of Oxford and Cambridge which are themselves products of Empire (Arday and Mirza, 2018; Begum and Saini, 2019; Bhambra et al., 2018; Saini and Begum, 2020). The burgeoning literature on decolonising curricula and the intractability of colonial remnants in classrooms and libraries reflects a formidable and ongoing struggle (Heleta, 2016; Mamdani, 2016; Mngomezulu and Hadebe, 2018).

In the discipline of politics, increasing attention is drawn to the ‘Dead White Men’ approach to teaching and the paucity of women and scholars of colour on reading lists (Begum and Saini, 2019). Because political theory still tends to be taught in abstraction from the historical context of a reified White European male philosophical gaze, related
perspectives – from grand classical theories to postmodern critiques of rationality, morality, security, and modernity – have obscured the vastness of the non-Western canon. Critical scholars of Development Studies and International Relations have demanded more reflection about the claims to internationality of these disciplines (Haffner, 2018) and the continued over-reliance on European frameworks of knowledge production (Spivak, 1988).

Some scholars argue for decolonised readings of the political (Shilliam, 2021) and sociological canon (Meghji, 2021). A historical recontextualisation and deconstruction of these disciplines and their ‘founding’ figures reveal the concealed, colonial logics and assumptions underpinning them. In this very important strand of decolonising literature, canonical figures retain a central position, but they are reassessed for the colonial logic embedded in their thinking, particularly because this is actively censored from mainstream teaching. For instance, Gani (2017) draws attention to how Cosmopolitan theorists have advanced the erasure of race in Kantian frameworks, to the detriment of refugees subject to European Union (EU) law.

How can analytical approaches – qualitative, quantitative or otherwise – uphold or challenge these assumptions and bodies of knowledge? Decolonial research perspectives, particularly qualitative methods, have been advanced by feminist, queer, indigenous, and anti-racist scholars. They emphasise that quantitative methods are embedded in a certain Enlightenment ideal of knowledge, and that social scientific inquiry has largely been based on (White) men’s experiences and standpoints (Hill Collins, 1990; Jayaratne, 1983). Feminist research prioritises ‘how women informants think about their lives and men’s lives, and critically to how traditional social scientists conceptualise women’s and men’s lives’ (Harding, 1987: 2). These critical approaches often eschew or challenge the categories, language, frameworks, thresholds of ‘legitimate scientific enquiry’, and the preconception that social and political words are not inherently messy (Brim and Ghaziani, 2016). And to represent the political struggles of subaltern groups (Mies, 1983) they resist disciplinary silos by encouraging intersectional, interdisciplinary, and bottom-up approaches to research.

Approaches that disrupt the often clinical and hierarchical researcher–participant binary favour partnerships with historically marginalised communities to facilitate mutual uplift. Smith’s (1999) seminal text Decolonising Methodologies advocates collaborative and reflexive ways of knowing, through work with historically codified and colonised indigenous communities; Walter and Andersen (2013) have dismantled and reconceptualised the ways in which quantitative research with indigenous populations has been and should be approached.

Autobiographical methods, self-narrative, storytelling, oral histories, and archival and visual methods may be open to more radical ‘queering’ as they uncover embodied emotions and lived experiences. In methods predicated upon validity, reliability, and reproducibility, this knowledge is often concealed (Brim and Ghaziani, 2016). Nonetheless, for subaltern and marginalised populations, ‘counting’ is often crucial to political claims for self-determination and recognition in order to map the scale and size of hidden and vulnerable populations (Doan, 2016).

Another issue is that statistics have a racist legacy. The forefathers of common statistical techniques, including Galton, Spearman, and Pearson, were ardent eugenicists and pioneered statistical techniques to model racial hierarchies in human intelligence. These provided ‘scientific arguments’ for genetic differences in mental capabilities across ‘races’ and other socially constructed categories of difference (Zuberi, 2001). These
legacies within our higher education institutions are now openly problematised: for instance, UCL’s (2021) formal apology for its eugenics history.

In statistical modelling, we are now aware that because we cannot consider an unalterable characteristic like race as a ‘cause’, it is arguably an inappropriate variable for inferential statistical analysis (Holland, 2008; Zuberi and Bonilla-Silva, 2008). Zuberi and Bonilla-Silva (2008) advise that we should, for both empirical and ethical reasons, associate the impacts of race as a function of racism. Race and ethnicity must be placed within a social context, and inequalities cannot be attributed to racial characteristics, given ‘that the social concept of race affects how we interpret quantitative representations of racial reality’ (Zuberi and Bonilla-Silva, 2008: 127). But because quantitative research can harness reductive statistical categories and appeal to ‘objectivity’, race science still proliferates today (Saini, 2019).

Quantitative researchers have tended to – often for analytical reasons such as sample size or feasibility – ignore the heterogeneity of race and ethnic identity in multicultural societies and the historical power hierarchies that underlie commonly used racial and ethnic classifications. British national statistics often homogenise African, Caribbean, and South Asian descended people under the broad categorisation of ‘Black’, or ‘Black’ and ‘Asian’. Binary oppositions between broad categories often used for comparative analysis – such as Black/White, non-White/White, immigrant/native – link to colonial dualities of uncivilised/civilised and inferior/superior (Hall, 1988). Ethnic classifications are socially constructed and can themselves act as mechanisms that socially construct hierarchical differences if researchers who wield them do not also work against them (Gunaratnam, 2003). Codification such as this has long been wielded as a tool to consolidate power. Scott (1998) states that the standardisation of measurement (of all things economic, geographic, social, and political) across local and indigenous contexts in the development of the ‘high-modern’ nation state in Europe and the colonial state purposefully fed into the economic and political interests of the metropole.

Quantitative research has of course long been, and still is, key to documenting inequalities. Statistics can expose the ‘hidden structures of oppression’ (Gorelick, 1991), and scholars like McCall (2005), Choo and Ferree (2010), and Scott and Siltanen (2012) have advocated the need to think carefully about how to model inequalities intersectionally, moving beyond binary understandings of gender, race, and class and the one-dimensional ways in which they are approached in quantitative inequality studies. There is much precedence and scope, therefore, for quantitative methods to be incorporated into critical frameworks of thought and analysis. ‘QuantCrit’ – a quantitative sub-field in critical race theory – examines the role of statistics in the context of racial and social justice. A QuantCrit approach acknowledges that data sources and measurement carry hegemonic baggage, statistical analysis can further racial equity, racism is multifaceted and complex, and racial/ethnic categories are not fixed and natural (Gillborn et al., 2018). Other UK collectives of quantitative researchers and scholar-activists like ‘Radstats’ and ‘FemQuant’ seek to explore the possibilities of a radical and/or feminist quantitative social science that can promote positive social change.

Our argument, however, is about the importance of a critical approach to quantitative pedagogy. The ongoing COVID-19 pandemic exemplifies why this is necessary. In the United Kingdom, a disproportionate number of ethnic minorities have died after contracting the coronavirus (Public Health England, 2020). Initial takes on this phenomena – racial pseudo-science according to Dhairyawan and Chetty (2020) – suggest that certain ethno-racial groups are more genetically prone to succumbing to the virus. A critical,
socio-politically informed analysis – such as that from the Runnymede Trust (2021a) – identifies the root of this in existing socio-economic inequalities of race and class, which are reflected in patterns of education, housing, occupation, and more. To those unacquainted with a critical pedagogy of quantitative methods, this is not immediately obvious, showing how essential it is for data analysis to be critical and socio-politically informed.

To date, much of the critical literature in our field of interest demonstrates how quantitative methods can be decolonised and how critical race research can incorporate quantitative methods (Crawford, 2019), and vice versa. However, there has been little discussion about decolonising the quantitative research methods curriculum. As a result, decolonisation and quantitative analysis often come across as separate – and perhaps opposing – projects gaining traction in UK undergraduate teaching. Recently, there has been a push to promote quantitative research methods in undergraduate social sciences curricula such as the Q-Step initiative (see British Academy, 2015; MacInnes, 2018; Nuffield Foundation, 2020). However, more fundamental methodological questions (around, for example, structural biases in statistical data) beyond how to engage social science students in quantitative research have yet to be systematically addressed in quantitative teaching.

Our shared experience suggests little initiative, or perhaps opportunity, from teachers of quantitative methods to actively engage with decolonisation and race critical scholarship. This is substantiated by the paucity of scholarship on this topic. The current focus is on effective pedagogy of existing methods, exciting students about learning statistics, and the embedding of quantitative methods in substantive topics (Adeney and Carey, 2009; Slootmaeckers et al., 2014; Williams et al., 2016). It could be that the epistemological paradigm of quantitative methods continues to resist the scrutiny of power, and hence questions of decolonisation. Quantitative methods tend to be aligned with objectivist and (post-)positivist positions: this is the idea that ‘objective truth’ exists and can be objectively observed (Lewis-Beck et al., 2004: 749). Consequently, quantitative methods continue to be viewed, broadly, as the application of mathematics to social concepts. As ‘tools’ of research – whether in the mathematical or social sciences – they are perceived as value-free, producing generalisable knowledge (Zyphur and Pierides, 2017). This notion might explain why politics scholars have not yet drawn meaningful linkages between quantitative teaching and initiatives to decolonise curricula.

Also, within the discourse on decolonisation of the curriculum, the teaching of quantitative methods is conspicuously lacking. From those engaged in decolonisation, there is scepticism because the positivistic frameworks of quantitative research tend to negate the subjective nature of knowledge. And because quantification entails simplifying complex concepts, conclusions produced by such approaches are often reductionist and unsophisticated. Many standard analytical methods were adopted within the social sciences to place them on par with the natural sciences as ‘legitimate’ academic pursuits. This encroachment of the scientific ideal into disciplines such as politics through the common usage of scientific statistical methods and the application of mathematical logic (see Fisher, 1941) not only entails, for example, the detachment of ‘variables’ and ‘cases’ from ‘real’ social entities, but also their input into models centred on linear dependency (Byrne, 2012); this obfuscates the social complexity and forces behind the genesis, design, and application of the data itself. Given these scepticisms, it is not surprising that quantitative research methods and training seem as if they cannot be decolonised.
Decolonising the quantitative methods curriculum

Quantitative methods teaching is a central part of the contemporary politics curriculum and must be a part of the decolonisation initiative. The misconception that numbers can ‘speak for themselves’ or that statistics are more reliable and universally valid reflects a weak understanding of how social data are produced and how the researcher and their existing assumptions shape data and findings. Gillborn’s (2010: 267) fictional character summarises the idea: ‘What’s really dangerous is that non-statisticians are intimidated by the numbers. They don’t have the confidence or expertise to challenge the conclusions or the methods that generated them’. It falls on methods teaching to produce critical data users, raising awareness about processes of data production and assumptions underlying data analysis.

However, this also highlights that quantitative methods teachers are responsible for showing how social data can reproduce hierarchies. Critical data usage or production must go beyond the technical quality of the data, as reflected in sample sizes, sampling strategies, or data collection methods. It must also engage with the ‘social constructedness’ of quantitative data and the relationships between power and knowledge.

Students who are critical about data will question it; Who has collected it and why? Who uses it and why? And, what does it do? Because concepts and measures are determined by the researcher, they are prone to biases. Quantitative teaching as a core instrument of a decolonised politics curriculum and a decolonial approach to quantitative methods teaching can help students become critical, reflexive, and aware that that data – and by extension, knowledge – are not neutral, but authoritarian and hierarchical.

In practical terms, how can decolonial quantitative methods teaching enhance the movement to decolonise politics curricula? While a specific pedagogical strategy is outside the scope of this article, some strategies are shared below.

Strategies for decolonial quantitative methods teaching

Our discussion on decolonising quantitative methods teaching and some practical suggestions are based on our own experience as educators. We offer examples from different subdisciplines and also suggest that a decolonial quantitative methods curriculum should emerge from four activities: these are relevant for modules that teach or embed statistics.

First, resist Eurocentrism in our own teaching. That means, at the most basic level, to include readings, concepts, and knowledge from scholars from the Global South and to use data and examples from around the globe. Measures and concepts from Western contexts should not be presented as the norm or the default. We should instead ensure that European perspectives are not the only ones being considered and practise what Kerner (2018) calls ‘decentring by addition’.

Second, show how politics and quantitative methods are systematically Eurocentric. Quantitative methods teaching should identify when methods or data used are historically embedded in Eurocentrism and, thus, risk reproducing these. When certain methods or datasets cannot be avoided, we can still highlight specific contexts and local expertise in the production of data; particularly the historical background of analytical methods and the problematisation of ‘bad’ data and methods.
Third, integrate and centre race critical thinking in quantitative methods teaching. Curricula must reflect how measurement, data, and analyses are never neutral, but based on the researcher’s assumptions, and therefore reproduce biases. Questions about data that we do not have – concepts, individuals, or regions, including ethnic minority groups or countries from the Global South – reveal that those in power decide what data are collected from whom and with which purpose (Sabaratnam, 2017). And, what we do find is determined by how concepts are operationalised and measured. Thus, it is our own biases that shape how we study and measure something. Categories used in quantitative data analysis are not ‘natural’ or ‘given’, but socially constructed; in addition, complex concepts – such as ethnicity (Burton et al., 2010) – are oversimplified. Quantitative researchers are generally aware of the social constructedness of social data, but a decolonial lens highlights the need for this to become a focus of teaching.

Finally, our teaching should problematise the frequent abuse of methods in the academic and public spheres and the routine misrepresentation of data. For example, when ‘background’ factors are ‘overcontrolled’ for in a model and render the effects of ethnicity insignificant, it is important to advance a discussion of how racisms imbue methods (Gillborn, 2010).

And fourth, encourage students to create and use data critically. Just as we encourage students to use data well in a technical sense, we should promote its critical and responsible usage. This means that students must be aware of their assumptions and also the assumptions of those who have produced and analysed data. Alongside teaching them what is and is not practically ‘feasible’, we must also discuss what is and is not feasible from the perspective of ethical responsibility and social justice. Positionality (Walter and Andersen, 2013) is important here for understanding the relationship between the stories they want to be able to tell from their data and the extent to which rigour and richness can be afforded through conventional quantitative methods.

Examples from subdisciplines

The substantive examples below suggest how the deconstruction and critical discussion of conventional statistical techniques and substantive concepts such as ‘democratic support’, ‘gross domestic product (GDP)’, and ‘Human Development Index (HDI)’ can be conducted in a quantitative methods classroom.

Comparative political sociology

Many core concepts of contemporary political sociology – such as power, participation, or globalisation – are central to the endeavour to decolonise the curriculum. The history of these concepts is discussed by several scholars in the context of efforts to decolonise social and political theory (e.g. Kohn and McBride, 2011; Pillay, 2018). Our focus is on the challenges and possibilities of using quantitative data for a decolonial approach to teaching political sociology.

The need to decolonise quantitative political sociology is evident in comparative perspectives. Social sciences curricula are regularly critiqued for their pervasive Eurocentrism (Chandra, 2013; Kerner, 2018); the use of quantitative data amplifies the problem. Most comparative social surveys have a limited geographic scope, and many large surveys focus exclusively on Europe or ‘Western democracies’ more generally, for instance, the
European Social Survey, the Luxembourg Income Study, or the International Social Survey Project (GESIS, 2019). These datasets are used often because cross-national data are not easily available from other parts of the world. This highlights, among other things, global inequalities in social data collection and dissemination. For those teaching political sociology then, the decision to include empirical data often inadvertently leads to a focus on countries for which such data are readily available – hence the prioritisation of the Global North.

Even when the effort is made to engage with non-Western contexts, it is difficult to evade Eurocentrism. Many comparative datasets from other parts of the world, for example, the Arab Barometer or the AmericasBarometer, have been established and are often fully or partially managed by US or European institutions (cf. Arab Barometer, 2020; Vanderbilt University, 2020). Consequently, they are fundamentally rooted in Western perspectives. In particular, public opinion data need to be understood in the context of this legacy and as influenced by power hierarchies and agendas rather than as a neutral representation of the ‘as-is’ (Phull, 2019). A good example for the problems of externally driven data collection in non-Western contexts is the concept of ‘democratic support’. For instance, the large-scale global social data gathering project, the World Value Survey, operationalises democratic support in the same conventional manner for participants in 60 countries: survey participants are asked to use a 0 to 10 scale to rate how important it is for them to live in a democratically governed country (Inglehart et al., 2014: 9). Identical wording is used in all countries for cross-national comparability, but the equivalence and validity of the measure are questionable. Conceptually, democracy has different connotations outside of established ‘Western’ democracies; these emerge from culturally and historically specific notions of freedom or community; thus, ‘support for democracy’ can be abstract, idealistic, or irrelevant (Bratton, 2010; Kiewiet de Jonge, 2016; Koelble and Lipuma, 2008; Schaffer, 2014). In postcolonial settings, Western democracy may be associated with colonial rule, and also ‘different histories and cultures produce different democracies’ (Koelble and Lipuma, 2008). So, low ‘support for democracy’ might indicate the desire, for example, for indigenous groups’ self-determination through representative means. Such a model predates, in many countries, ‘modern’ democratic regimes (Alence, 2004). In short, the existing data are at best a poor approximation for ‘democratic support’ outside the West.

Eurocentrism in the quantitative data on democratic support and/or political attitudes might undermine the use of quantitative data or justify a focus on ‘mature’ – another word for ‘Western’ – democracies in research. We suggest that including quantitative data can not only create awareness of Eurocentric biases in the discipline but also help students to become critical users of such data. The paucity of data available from some parts of the world exposes the systemic bias in scholarly attention: it shows which contexts are commonly neglected in the discipline and highlights the asymmetry in existing knowledge. From a technical and epistemic standpoint, respectively, problematising the common operationalisation of democratic support can help to engage students with ideas of cross-cultural equivalence and the non-universal validity of quantitative data. The objective is to sharpen students’ awareness of Eurocentric biases and the limitations of quantitative data.

A decolonial approach to teaching quantitative political sociology may go beyond ‘decentring’ by adding other contexts or perspectives and also seek to undo the power relations underlying Eurocentric perspectives (Kerner, 2018). Given the example of ‘democratic support’, this entails deconstructing the meaning – and usefulness – of concepts and challenging assumptions of their universality. From an empirical perspective,
this demands engagement with the consequences of measuring and analysing ‘democratic support’. A decolonial approach to political sociology would capture how uncritical usage can inadvertently perpetuate the Western democratic ideal. This is expressed in studies – of Global South and former Soviet countries – that seek to explain where the Western ideal model of development is not followed (e.g. Inglehart, 2003); such work generates characterisations of ‘failed’ or ‘defective’ democracies (Boatcă and Costa, 2010). We must thus ask how alternative ways of measuring the concept are less ethnocentric, perhaps, through a focus on underlying civic values, such as tolerance (cf. Spierings, 2014). The salience of jettisoning these concepts altogether must be explored as well; while somewhat radical, this is necessary because decolonial approaches entail a rethinking of the role of quantitative data.

**International political economy**

The idea that IPE curricula can, and should, be decolonised is not novel; three points of critique have motivated existing initiatives. These are (1) the absence of race, (2) the conceptualisation of ‘The International’, and (3) economism (Mantz, 2019).

Regarding the first point of critique: Tilley and Shilliam (2017) directly link the absence of race to neoliberalism’s individualising paradigms. These link racism to individual actions and reduce racialised transgressions to the personal insufficiencies of the Other. The second point of critique troubles the conceptualisation of ‘The International’ because IPE is the discipline that studies ‘European perspectives on the political economy everywhere’ instead of ‘perspectives on the global political economy from globally-diverse epistemic locations’ (Mantz, 2019: 1370).

In an IPE classroom, these two critiques may be addressed by highlighting the role of race and class in political economy and engaging with diverse epistemic locations. Caribbean scholars such as George Beckford (1972) and Walter Rodney (1972) achieve this through meticulous data usage to challenge the global hegemonies exerted by racial capitalism. And analyses done by scholars of the ‘peripheral economy’ such as Girvan (1974, cited in Henry, 2014) build on the Best-Levitt plantation model (Bishop, 2013) to show that a political economy of race was foundational to corporate control of global capital.

The third point of critique mentioned above is on economism. Political economy combines methodologies from politics and economics, so a quantitative focus risks privileging the latter. Economic analyses, as the Global South scholars mentioned above show, can resist economism and advance divergent perspectives through the use of quantitative data. This is important because economism is guided by positivist assumptions of a universal objective truth, accompanied by modernism’s principles of rationality and ‘economic agency’ (Kayatekin, 2009). Economism also assumes that economics is inherently apolitical and amoral, detached from social forces and hierarchies (Gradin, 2016; Leonardo, 2004). Several scholars have sought to resist economism in IPE by centring analyses that affix the global political economy to coloniality, racism, sexism, and anthropocentrism (Figueroa Helland and Lindgren, 2016; Mantz, 2019).

These observations can be explained to students through the topic of GDP. In introductory textbooks (e.g. Acemoglu et al., 2019), GDP is presented to students, as a facet of national income accounting, to measure production, income, and expenditure. A discussion on what GDP does not measure usually follows; examples include physical capital depreciation, negative externalities, home production, and the underground economy.
These latter three exclusions are building blocks for alternative or pluralistic streams of economics. Negative externalities form an entry point for ecological-economic perspectives. Home production and the underground economy are the nucleus of feminist economic perspectives, problematising how care work is a gaping hole in mainstream/neoclassical economics.

Nevertheless, a decolonial approach to GDP must go beyond what GDP measures and does not measure, and even what GDP is and is not. Instead, the focus must be on what GDP does, particularly how GDP exerts power and reinforces inequalities. Economic statistics shape global economic governance (Mügge, 2020); analyses about them demonstrate the role of quantitative data in making the global economy an unequal one.

Partially, this is a problem of how political institutions influence prices and how power dynamics are an outcome of the perceived economic properties of tradable commodities (Mügge and Perry, 2014). Mügge’s (2020: 105) example of a copper mine demonstrates that when environmental damage and worker exploitation are allowed, the mine has more value. Capital asset pricing is thus a reflection not only of productive potential but also of asymmetrical power relations in the global economy. Indeed, given the structure of the global economy, enhanced prosperity for some – because of these asymmetries – carries the cost of impoverishing, colonising, or eradicating others (Blaney and Inayatullah, 2010).

On a more basic level, our classroom experiences with teaching quantitative analysis suggest many students are apprehensive of modules with a mathematical component. The ‘statistics anxiety’ literature probes this phenomenon (Slootmaeckers et al., 2014). Given this, and the pitfalls of economism, we suggest a two-pronged strategy: (1) overcoming the perception that economic and quantitative data emerge from and reside in a black box, and (2) drawing attention to the contentious and shifting role of mathematics in economics to show that core economic concepts – not unlike quantitative analysis – can be understood with a simple grasp of mathematics. Arguably, engagement with all of these concepts might not be feasible at an introductory level. Critiques of measurement are often critiques of capitalism because standard measures of growth and productivity not only describe but also justify the status quo. The next section, on international development, builds on this point.

**International development**

The concept of development is contested, and the most serious challenge to it is perhaps offered by the Post-Development school, which sees development as a concept weighed down by Eurocentric, depoliticizing, and authoritarian overtones (Ziai, 2015). But despite post-developmentalist scepticism, international development is a regular feature of politics curricula and often a framework for studying poor countries and regions. A core question of such studies is whether or not development is measurable, leading to critiques, as above, of GDP. An alternative to GDP is the HDI.

Heavily inspired by the work of Amartya Sen and his collaboration with Mahbub-ul Haque, the HDI is a summary composite index. The HDI was first introduced in 1990 explicitly as an alternative to GDP, to capture the non-economic dimensions of development (Haq, 1995). Presently, the HDI is calculated as the equally weighted geometric mean of three dimensions: education, health, and wealth income.

A decolonial approach to discussing the HDI in the classroom would interrogate the construction of development indicators such as HDI as metrics of linear progress (Escobar,
2011). Some quantitative insight can draw attention to the limitations of HDI as an income-focused measure. Income highly correlates with health and education, so the HDI is only a small improvement on economic measures of development (Kelley, 1991). This reliance on income reinforces the perception that global North countries are superior to global South countries. In addition, such approaches support the erasure and legitimisation of colonisation, the slave trade, structural adjustment, land grabs, labour exploitation, resource extraction, and other forms of violence (Hickel, 2020).

Furthermore, critiques such as these prompted changes to the HDI methodology in 2010. For example, introducing the geometric mean to replace the linear aggregation formula alleviated the issue of perfect substitutability between dimensions (Klugman et al., 2011). The debates of policymakers in constructing, re-constructing, and deploying the HDI also offer valuable insights on the politics of data; these are captured in the Human Development Reports prepared by the United Nations Development Fund and examined critically, for instance, in Klugman et al. (2011). These discuss the shift from basic literacy as a measure of education, also the contentious nature of valuations of capital to measure wealth, and the limitations of life expectancy as a measure of longevity because it only partially captures the concept of health. Engagement with data production, exemplified by the construction and reconstruction of development indicators, is thus an important tool for a decolonial approach to teaching development.

**Conclusion**

In this article, we show that the teaching of quantitative methods has a crucial role to play in the decolonisation of undergraduate politics degree programmes. Furthermore, to advance critical thinking in students, quantitative skills are no less important than technical skills, wherever social and political data are being produced, analysed, and cited.

Given that decolonisation of, and through, quantitative methods teaching is both possible and necessary, we argue that such efforts in higher education and politics departments in the UK and globally can be augmented in many ways. In particular, we emphasise the need for a profound consideration of how Eurocentrism determines the quantitative methods and techniques used today. At present, there is limited guidance available both for (1) those who aim to decolonise their method of quantitative teaching and (2) those who aim to decolonise their teaching through quantitative methods. Our suggestions are for teachers who use quantitative data in the subdisciplines of Political Sociology, International Political Economy, and Development Studies.

We show that changes in pedagogy are necessary and beneficial for students, and can be made without expert knowledge of the wider decolonisation project. At the same time, we understand that meaningful changes to supplant embedded Eurocentrism in politics departments will be challenging to implement. Many of our suggestions demand a radical rethink of teaching practices, philosophies, and curricula, albeit within the market-centric structures of the UK academy. They will, however, require substantial resources: the scope to mainstream discussion about ontology, epistemology, and teaching for social justice; the expertise in both critical scholarship and quantitative methods that is still not common; and the time to create and innovate suitable teaching resources as these are not yet readily available. These challenges are complicated in the social sciences because teachers of quantitative methods regularly encounter student disengagement, anxiety, and skills gaps. Some of these issues might be overcome by affixing questions of asymmetrical power relations to quantitative analyses. Students are more likely to engage with
quantitative methods when they know that these are a tool to resist hierarchies. Fundamentally, however, these changes can only be viable with a commitment from institutions, as a whole, to decolonisation.

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**Notes**
1. Throughout this article, we use the term ‘data’ to refer to ‘social data’.
2. A recent example being the report by the Commission on Race and Ethnic Disparities (see Runnymede Trust, 2021b).
3. Teachers should consider centring the vast Latin American scholarship on democracy which, for example, models the historical effects of colonialism on the origins and postcolonial development of political institutions in the region (e.g. Fuentes, 2016).
4. Prices are based not only on the use value of goods and services but also other dynamics such as scarcity and competition; these emerge from policies and regulations (Mügge, 2020).
5. The mathematisation of economics deepened in the 20th century: particularly, a resurgence of Walrasian approaches to general equilibrium and a surge in strategic military production which employed economics as an engineering tool (Dimakou, 2020).
6. It might be unreasonable to refer to the scholarship here as a unified whole, given the vast and diverse scholarship it encompasses. This includes literature by modernisation theorists and dependency writers, as well as debates on balanced or unbalanced growth, export orientation, import substitution, and capitalist or socialist development. (Ziai, 2015).

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