

DEVELOPED BY



WARWICK CHEMISTRY

Superior, The Return of Race Science

Chapters 4-8

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Diversity Landscape of the Chemical Sciences

A report by the Royal Society of Chemistry



DISCUSSION BOOKLET 2

"4. All peoples of the world possess equal faculties for attaining the highest level in intellectual, technical, social, economic, cultural and political development

5. The differences between the achievements of the different peoples are entirely attributable to geographical, historical, political, economic, social and cultural factors. Such differences can in no case serve as a pretext for any rank-ordered classification of nations or peoples"¹

UNESCO's 1978 statement on Race and Racial Prejudice, Article 1.4-5

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Thinking back - What challenged/surprised you from the chapters?

This could be something pertinent or something that really grabbed your attention and made you think twice

Last session we finished by looking at statistics from the Diversity Landscape of the Chemical Sciences report and we asked how the concept of race impacts Chemistry and its practitioners. This time we are going to start with some statistics around attainment gaps in undergraduate populations.

Warwick Attainment Gap – what is yours like?

An attainment or awarding gap describes the average difference in attainment between students from different socioeconomic or ethnic groups etc.

In Warwick Chemistry since our 2014/15 graduates we have had an attainment gap of ~20% for BAME vs. white students achieving a 1st, and a >10% gap for students awarded a 1st or 2:1. This is not uncommon across the Russell Group and is roughly the average for the wider University. Furthermore, there is an attainment gap for every major ethnic grouping (black, Asian, Chinese and mixed) compared to white students. Similar trends are reflected across the wider University. It could be argued that since these statistics have often not been broken down into UK vs. non-UK students, that a language barrier for non-UK students could be cited as a reason for an attainment gap. Where departments at Warwick have done this breakdown there have still been BAME attainment gaps for both UK and non-UK students vs their white counterparts from UK and non-UK backgrounds respectively.

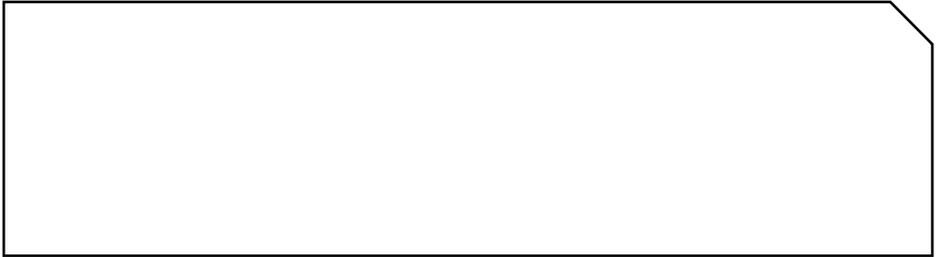
Notably some departments have closed their black attainment gaps to less than 1% for UK students. While this doesn't show deeper year to year progression challenges it does show that these numbers are movable with policy intervention.

Therefore, this session will look at the racial arguments used to justify differences in ability and attainment, whether there is any biological basis for race and whether it's possible to hold an apolitical position on race and racism. We will then apply this knowledge to considering ways to close attainment gaps.

Discussion

What were Reginald Ruggles Gates' reasons for the underachievement of certain students? *Re-read page 86-88*

How are Meisenberg's views similar to R.R. Gates? How has Meisenberg given his views a façade of credibility? (p.104-106) How does the Mankind Quarterly play into this narrative?



What are Lewontin's and Rosenberg's reasons for dispelling race as a biological concept? *Re-read page 88-93*

Look at the appendix "Evidence Against Race as a Concept" for a detailed discussion of the papers cited and see Thomas' comments on p.P183-184



Montagu in 1942 argued that, "the word race is itself racist," (page 89). What did Montagu mean by this?

Consider what we have just explored around the biological basis for race and the reasons for the concept of race we discussed in the last session.



If the concept of race has been widely dispelled by Science, why does it keep coming back?

Is there a political dimension to the survival of the concept of race? (P.140-141) Think about why the Mankind Quarterly was established (P. 98-104) and who actually benefits from the concept of race.

“We have two nested fallacies here. The first is that the human species comes packaged up in a small number of discrete races, each with their own different traits. Second is the idea that there are innate explanations for political and economic inequality, but it doesn’t represent historical injustice.”

Marks page 131

What do Cheddar Man and Chapter 8 teach us about race, history, skin colour and nationality? *Re-read page 166-168*

Why should our knowledge of human migration change how we think about race and our origin stories? (P.176-181)

Why was Cavalli-Sforza’s “Human Genome Diversity Project” so controversial? *Pages 145-159*

How do your answers to the previous question and Montagu’s understanding of race relate to Cavalli-Sforza’s project?

“Nothing is more seductive than a nice string of data, a single bell curve, or a seemingly peer-reviewed scientific study. After all it can’t be racist if it’s a “fact” ... Whenever anybody tells you I am objective, I am apolitical, that is the time to watch your wallet. Because you’re about to get your pocket picked.”

Marks page 132-33.

What is Marks trying to highlight in the above quote?

How have members of the alt-right (M.Yiannopoulos page 128) tried to use Science? Does it follow that because we are scientists and therefore "objective" we can't be sexist, racist, homophobic or hold biases? (P. 185-186)

A piece of work run by Harvard University explores implicit bias and offers a test to learn about your own implicit biases - (<https://implicit.harvard.edu/implicit/takeatest.html>)

Reflecting

Is it possible to hold an apolitical position on race equality?

If race is a historical and political (not biological) construct can you be apolitical on race and racism? How does this link to the concept of (racial) "colour-blindness"?

Yes / No

Does the use of “race” and our own biases impact our work as members of a university?

Do we have a role to play as members of a university in combatting racism in journals, in society and in the University? (P. 120-129) If so, what is our role?

Application

If race isn't biological but rather a human construct, why do we have attainment gaps?

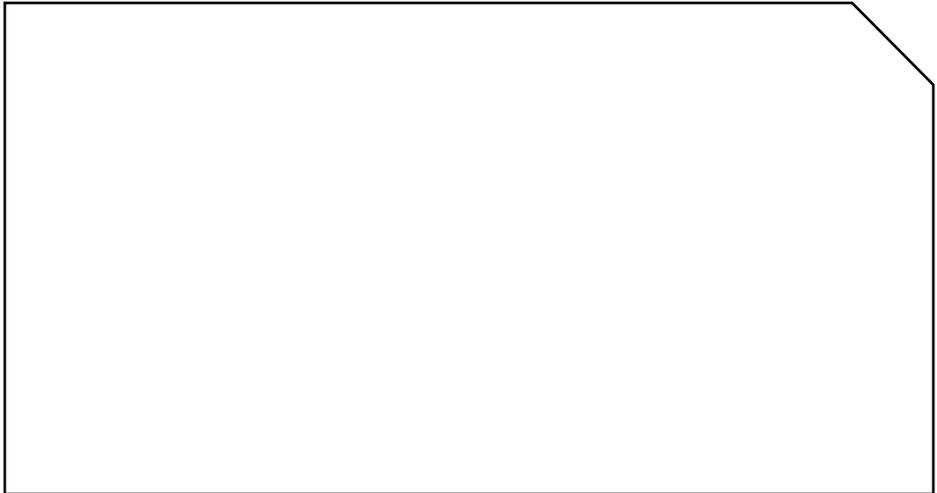
There are two dominant arguments. The so called “deficit model” focuses on the attributes and characteristics of the students as the main reasons for attainment gaps. The deficit model does not acknowledge societal or institutional structures and discrimination. Therefore, this model places responsibility for the attainment gap solely on the individual not the system. The literature strongly refutes the deficit model.

The second focuses on the systems, institutions and society. A report from Universities UK (UUK)² that follows this argument highlights eight themes from the literature that are believed to contribute to the attainment gap;

- 1. Institutional culture – a limited awareness of BAME issues and use of a deficit model*
- 2. Lack of diversity among role models and staff*
- 3. Lack of inclusive & diverse curricula and a reliance on “mainstream” ways of thinking*
- 4. Students feeling like they don't belong*
- 5. Prior attainment*
- 6. Lack of information, advice and knowledge of the system*
- 7. Financial considerations*
- 8. Lack of preparedness for Higher Education*

Bearing these eight themes in mind, what steps can we take as individuals, a department and institution to close ethnicity attainment gaps?

Additional Notes;



Evidence against “Race” as a biological concept

In 1972, Lewontin argues that around 90% of variation is seen within racial groupings not in differences between racial groupings;³

“It is clear that our perception of relatively large differences between human races and subgroups, as compared to the variation within these groups, is indeed a biased perception and that, based on randomly chosen genetic differences, human races and population are remarkably similar to each other, with the largest part by far of human variation being accounted for by the differences between individuals. Human racial classification is of no social value and is positively destructive of social and human relations. Since such racial classification is now seen to be of virtually no genetic or taxonomic significance either, no justification can be offered for its continuance.” Lewontin 1972.

This was further supported by Rosenberg in 2002;⁴

“Because most alleles are widespread, genetic differences among human populations derive mainly from gradations in allele frequencies rather than from distinctive “diagnostic” genotypes. Indeed, it was only in the accumulation of small allele-frequency differences across many loci that population structure was identified.” Rosenberg et al. 2002

Discussions around allele frequency being the defining marker between human populations rather than allele presence is the defining argument of Edwards critique of Lewontin.⁵ Edwards shows that by considering the frequency of enough alleles at certain loci you can successfully group individuals who come from similar parts of the world.

While Edwards work is supported by Johnathan Marks,⁶ Marks argues...

“A. W. F. Edwards (2003) has recently criticized the invocation of these numbers against the race concept as “Lewontin’s fallacy,” on the grounds that a proportion of the diversity detectable in the human gene pool is indeed correlated with geography, and thus can be used to sort people into large groups, if one focuses upon it closely enough. The argument here is not with the data, but with the meaning of the data and its relation to human races. Geographical correlations are far weaker hypotheses than genetically discrete races, and they obviously exist in the human species (whether studied somatically or genetically). What is unclear is what this has to do with “race” as that term has been used through much of the twentieth century – the mere fact that we can find groups to be different and can reliably allot people to them is trivial.

Again, the point of the theory of race was to discover large clusters of people that are principally homogeneous within, and heterogeneous between, contrasting groups. Lewontin’s analysis shows that such groups do not exist in the human species, and Edwards’s critique does not contradict that interpretation.” Marks 2010

It is strongly recommended that participants read the Marks, 2010 book chapter, as referenced here⁶

References;

- (1) UNESCO. Records of the General Conference, 20th Session, Paris, 24 October to 28 November 1978, v. 1: Resolutions - Declaration on Race and Racial Prejudice; 1978; pp 61–62.
- (2) Universities UK; Students, N. U. of. *Black, Asian and Minority Ethnic Student Attainment At UK Universities: #CLOSINGTHEGAP*; 2019.
- (3) Lewontin, R. C. The Apportionment of Human Diversity. In *Evolutionary Biology*; Springer US: New York, NY, 1972; pp 381–398.
- (4) Rosenberg, N. A.; Pritchard, J. K.; Weber, J. L.; Cann, H. M.; Kidd, K. K.; Zhivotovsky, L. A.; Feldman, M. W. Genetic Structure of Human Populations. *Science* **2002**, *298* (5602), 2381–2385.
- (5) Edwards, A. W. F. Human Genetic Diversity: Lewontin’s Fallacy. *BioEssays* **2003**, *25* (8), 798–801.
- (6) Marks, J. Chapter 15 - Ten Facts about Human Variation. In *Human Evolutionary Biology*; Muehlenbein, M. P., Ed.; Cambridge University Press: Cambridge, 2010; pp 265–276.