

DEVELOPED BY



WARWICK CHEMISTRY

Facilitator Notes

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 - CRIB SHEET

"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

This is an open question that we will likely use in some form in all the sessions. It is a good opportunity to gauge the feelings and understanding of the group

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.

Our Attainment Gap

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?

R.R. Gates believed strongly that racial differences were the reason for students from certain ethnic backgrounds underachieving. Meisenberg expresses this belief through the lens of genetics, claiming that one day genes will be found for intelligence that are stratified along racial lines. By dressing his work up in scientific terminology (similar to colleagues) and using a journal (Mankind Quarterly) to publish he is masquerading as objective.

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

Lewontin and Rosenberg show that most genetic diversity sits within groups not between them i.e. there is more difference in our racial groups than between them. So, you could be more like someone from a different "race" than someone of your "race".

Marks' comments in the appendix highlight that while if you looked at enough genes you could classify people this wouldn't follow traditional racial lines but rather (weakly) geography and is arbitrary depending on the genes you pick.

Thomas' comments highlight that there are no discrete groups of people just continuums and gradients.

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.

This brings us back to last session where we saw that race was a historical and political construct not a biological one.

Montagu argues that because race has no biological basis only politics, it is by design made to isolate and separate into groups for discrimination i.e. race is not a positive concept it is inherently negative – consider the discussion on the treatment of aboriginal Australians (P19-22).

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.

Simply race is a politically expedient concept to further the agendas of a select group of people. Consider the funders of Mankind Quarterly – they weren't interested in facts and truth they wanted to further their political agenda. Scientists who wanted to keep the study going benefitted from funding and kept their careers going. More broadly race has been used as an explanation to dispel the inconvenient truth that our societies are not as free and equal as we think they are (see Marks quote below)

"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)

These examples and chapters show us that trying to link skin colour to nationality is not scientifically sound and that we are more diverse than we thought we were. The chapters also show how some are desperate to highlight the exceptionalism of their nation or race by using dodgy science and history.

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?

Look at the p.152 – The scientists failed to see the links between their work and the lived experiences of many people in the context of "race". Cavalli-Sforza and his team believed themselves to be free of racial bias as they were objective scientists.

"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)

The alt-right have tried to weaponize science and use it as an impenetrable shield to protect their views from criticism, as you can't "argue" the facts.
We should also accept our own biases; Watson is an extreme example, but we all have our own biases influenced by our background etc.

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

While race doesn't exist, racism (the discrimination of someone based on perceived "racial" differences) does exist – therefore to be anti-racist is not only to disagree with race as a concept but also with racism and actively counter racism. Being "colour-blind" i.e. not "seeing" race is not the answer as racism still exists. This links back to the arguments considered previously that race and racism is not a biological concept but rather a political narrative. Therefore, you can't be apolitical to a political narrative.

Nothing can ever be apolitical, we are all influenced by our biases and backgrounds – what you consider apolitical or "middle-ground" isn't to someone else, so to claim objectivity is arrogant.

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?

While we shouldn't allow racist views to dictate what we do or research, we should be aware and seek to counter the negative impacts such views and decisions have on our community. We should also be aware how our work, and the way we work, is seen by the public.

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;

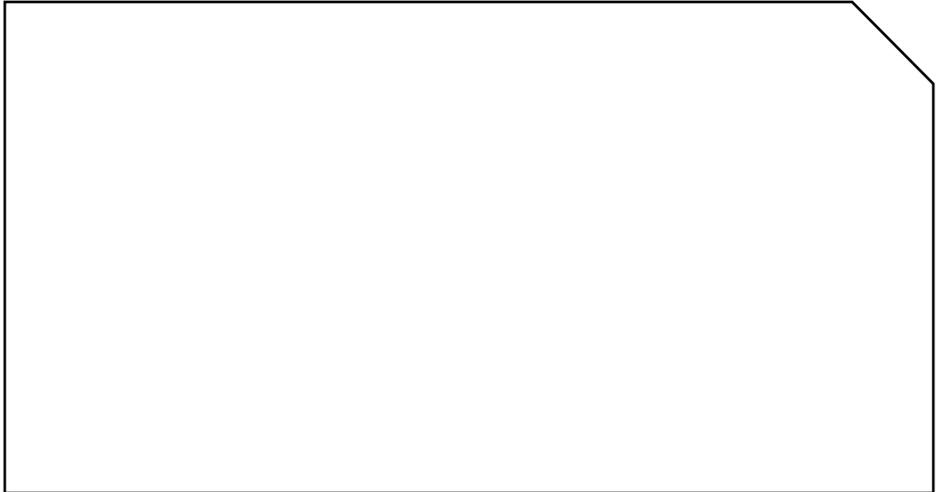
- 1. Institutional culture – a limited awareness of BAME issues and use of a deficit model*
- 2. Lack of diversity among role models and staff*
- 3. Lack of inclusive & diverse curricula and a reliance on “mainstream” ways of thinking*
- 4. Students feeling like they don't belong*
- 5. Prior attainment*
- 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?

Get your group to think of solutions that are individual (that they can do), departmental and institutional.

Encouraging members to see the need for their involvement in anti-racist endeavours such as closing attainment gaps is also the aim of this question, so please try to avoid just listing dry or unachievable solutions.

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 (pdf on Warwick Library Website)

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.