

DEVELOPED BY



# WARWICK CHEMISTRY

## Facilitator Notes

### Invisible Women, Exposing Data Bias in a World Designed for Men

*Preface, Parts 1 & 2*

*By Caroline Criado Perez*

&

### Breaking the Barriers, Women's Retention and Progression in the Chemical Sciences

*A report by the Royal Society of Chemistry*



B O O K C L U B

## DISCUSSION BOOKLET 1 - CRIB SHEET

"Representation of the world, like the world itself, is the work of men; they describe it from their own point of view, which they confuse with absolute truth"

*Simone de Beauvoir*

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## **Icebreaker – “Desert Island”**

*For this task come up a book, a music album and a fictional character you would take with you if you were exiled to a desert island. You will need to explain your choices to the group.*

Book –  
Album –  
Fictional Character –

The aim of the *Icebreaker* section is to get people comfortable in the session. Working round the room with introductions and “Desert Island”, should help you to set the tone for the session by engaging everyone and getting everyone contributing. It might be worthwhile to refer back to this question and the gender balance of peoples’ answers later when discussing the under-representation of women in history etc.

## **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

## **Discussion**

**What is the “gender data gap”? Why does Criado Perez stress it is the gender data gap not the sex data gap?**

*Re-read the Preface*

The gender gap is the omission of women/the consideration of women, from a wide variety of discussions and the consequences of these actions and omissions. As Criado Perez says – it is a female-shaped hole, that disfigures our thinking about culture, science and humanity itself. Criado Perez defines gender as the social meaning we impose on people who are perceived as female and the social meaning we ascribe to that. It is not the female body that is at fault (i.e. sex characteristics) but society and its perception of women.

**What is “male universality” (P. 22) aka “the default male” and how is this a privileged position?**

*How does this link to the professor at Georgetown who named their course “White Male Writers”? (P. 12) Why is it important that language allows gender to be marked? (P. 5-7) How has our teaching of history influenced this narrative? (P. 16-21)*

Male universality is the idea that the male is the default and accepted norm, therefore only divergence from the male norm needs justification and explanation - for example courses that explore female authors need justification and explicit explanation but not courses on male authors.

This is the point illustrated by the Georgetown academic.

It is important that gender can be marked in language as it avoids the default perception that everything is male unless expressed otherwise.

Male universality is a privilege as it naturally favours men who don't need to justify their position, everything is relative to their position not the other way round. Think of it like this; north, south, east and west – justify their positions off of each other on a compass, but the compass itself needs no justification. The compass is male universality

*“what is essential goes without saying because it comes without saying: the tradition is silent, not least about itself as a tradition”*

*Pierre Bourdieu page 23*

*“Whiteness and maleness are silent precisely because they do not need to be vocalised. Whiteness and maleness are implicit. They are unquestioned. They are default.”*

*Page 23*

*Carol Azumah Denis offers an interesting discussion on the “unmarked scholar”, a concept often aligned with white male universality in relation to education and scholarship that some members may find useful.<sup>1</sup>*

***How does snow-clearing become a gendered issue (P. 29-35) & how does this link to unpaid work?***

*What does this show us about the need to dis-aggregate data by gender?*

It is women who often pick up the burden of unpaid labour, such as; childcare, food shopping, cooking and cleaning etc. This means women often “trip-chain” to effectively complete all the unpaid labour. Women are also less likely to have a car and more likely to use public transport or be a pedestrian. This difference in travel approaches means that how you clear snow i.e., pavements or roads, has an impact along gender lines and highlights the need for dis-aggregating data to make transport systems and cities that work for all.

## Are gender-neutral or gender-blind solutions the answer?

Think about the gender-neutral toilet solution at the Barbican (P. 47-52) and the gender-blind policies of US universities in the early 2000s (P. 83-85) - who did these actions actually benefit? How does this link to supporting transgender and non-binary people?

While moving towards gender-neutral toilets is a positive step for many, making sure the move actually benefits and supports women and transgender individuals matters. Unfortunately, the approach taken by the Barbican benefitted men disproportionately.

Similarly, the gender-blind approach taken by some US universities to parents and tenure, benefitted men with children not women with children. This is because women carry the burden of having the child and often take a disproportionate role in caring for the child too. This meant the policy gave more time to men with children to focus on tenure, unfairly increasing their competitiveness.

In all these policies and actions, it is important not to forget transgender and non-binary people i.e. a policy that helps cis-women may not also benefit trans-women

## What is the “myth of meritocracy”?

In what ways does unpaid labour link to the “myth of meritocracy”?

There is a commonly held view that we do live in a world in which people are treated equally and fairly, where the only thing that matters is how hard you work and how good you are. However, when we start to scratch below the surface it becomes clear this is not the case; consider the effect blind auditions had on the New York Philharmonic or the various studies that show biased hiring practices or biased citation practices or biased student feedback. It is clear, however, that many people (especially men in STEM, see quote below) still believe we are a 100% meritocratic society.

The myth of meritocracy links to unpaid labour because unpaid labour is not evenly distributed making it difficult for many women to have the time “to get ahead” and go to the pub after work etc. This is before wider sexism in hiring practices and promotions is even considered too.

*“Ever-growing empirical evidence documents a gender bias against women and their research—and favoring men—in science, technology, engineering, and mathematics (STEM) fields. Our research examined how receptive the scientific and public communities are to experimental evidence demonstrating this gender bias, which may contribute to women’s underrepresentation within STEM. Results from our three experiments, using general-public and university faculty samples, demonstrated that men evaluate the quality of research unveiling this bias as less meritorious than do women. These findings may inform and fuel self-correction efforts within STEM to reduce gender bias, bolster objectivity and diversity in STEM workforces, and enhance discovery, education, and achievement.”*

Handley et al.<sup>2</sup>

## **Reflecting & Application**

**What places/locations, highlighted by Criado Perez, are areas women feel unsafe?**

*“But defecating in the open isn’t really much safer for women: there is a real danger of sexual assault from men who lurk near and on the routes to areas which are known to be used by women when they need to relieve themselves.”*

Page 50

*“In 2017 a Danish woman ... reported a man who was sexually harassing her on a London bus. After asking what she expected him to do, the bus driver commented, ‘You’re a pretty girl, what do you expect?’”*

Page 58

*Where do women feel unsafe on campus? It may be worthwhile for male participants to juxtapose their answers to where they feel safe as men on campus.*

This is a chance to empower the members of the group who do feel certain areas on campus are unsafe to express themselves. The question opens by considering areas Criado Perez highlights in order to open up the discussion to the personal experiences of the group.

Please be wary of dismissing or allowing other members of the group to dismiss the comments made. It may be helpful to encourage those who do feel safe to put themselves in their colleagues' shoes.

**Health & Safety is a big part of work life – thinking about PPE, does this work for women?**

*Consider “The Henry Higgins Effect” Chapter. From lab coats to face masks, do these fit women properly and function as they should?*

This question builds on “The Henry Higgins Effect” chapter. It is clear that uniforms and equipment used by some armed forces and services are not fit for use by women. This question is trying to get participants to think if their lab coats, lab design, goggles and gloves etc work for them effectively and can we as a department and university make changes to improve this.

## *What positive steps can we take towards our campus, PPE, students and colleagues that would help make environments safer for women?*

*Few women are willing to talk about something they may well be blamed for “encouraging”?*  
Page 50

*Victim blaming and dismissive attitudes continue to put women at risk – not the women’s actions. Women are often blamed for the violence, unsafe actions or unsafe environments perpetrated against them.*

This question aims to bring together the previous two questions and provides a space for positive actions and ideas to be put forward. It is also a space to dispel victim blaming and perhaps discuss instances of victim blaming.  
Ultimately, it’s not a choice for women to withdraw from society but a choice for society to be better, we take the first step towards being better by listening to the concerns of our colleagues.

### **Additional Notes;**

### **References;**

- (1) Dennis, C. A. Decolonising Education: A Pedagogic Intervention. In *Decolonising the University*; 2018; pp 190–207.
- (2) Handley, I. M.; Brown, E. R.; Moss-Racusin, C. A.; Smith, J. L. Quality of Evidence Revealing Subtle Gender Biases in Science Is in the Eye of the Beholder. *Proc. Natl. Acad. Sci.* **2015**, *112* (43), 13201–13206.