UNCONSCIOUS BIAS WITHIN ACADEMIA

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DECISION MAKING

- Decisions and opinions are affected unconsciously by our own **backgrounds**, **experiences** and **cultures**.

- In many situations our brains implicitly make fast judgements and assessments of people and situations.

- Biases remain even when we become somewhat aware of them.

THINKING FAST AND SLOW

- Daniel Kahneman won the Nobel Prize for Economics for his work on judgement and decision making.

- His book summarises much of his work on **cognitive biases** and **anchoring** (relying too heavily on one piece of information).
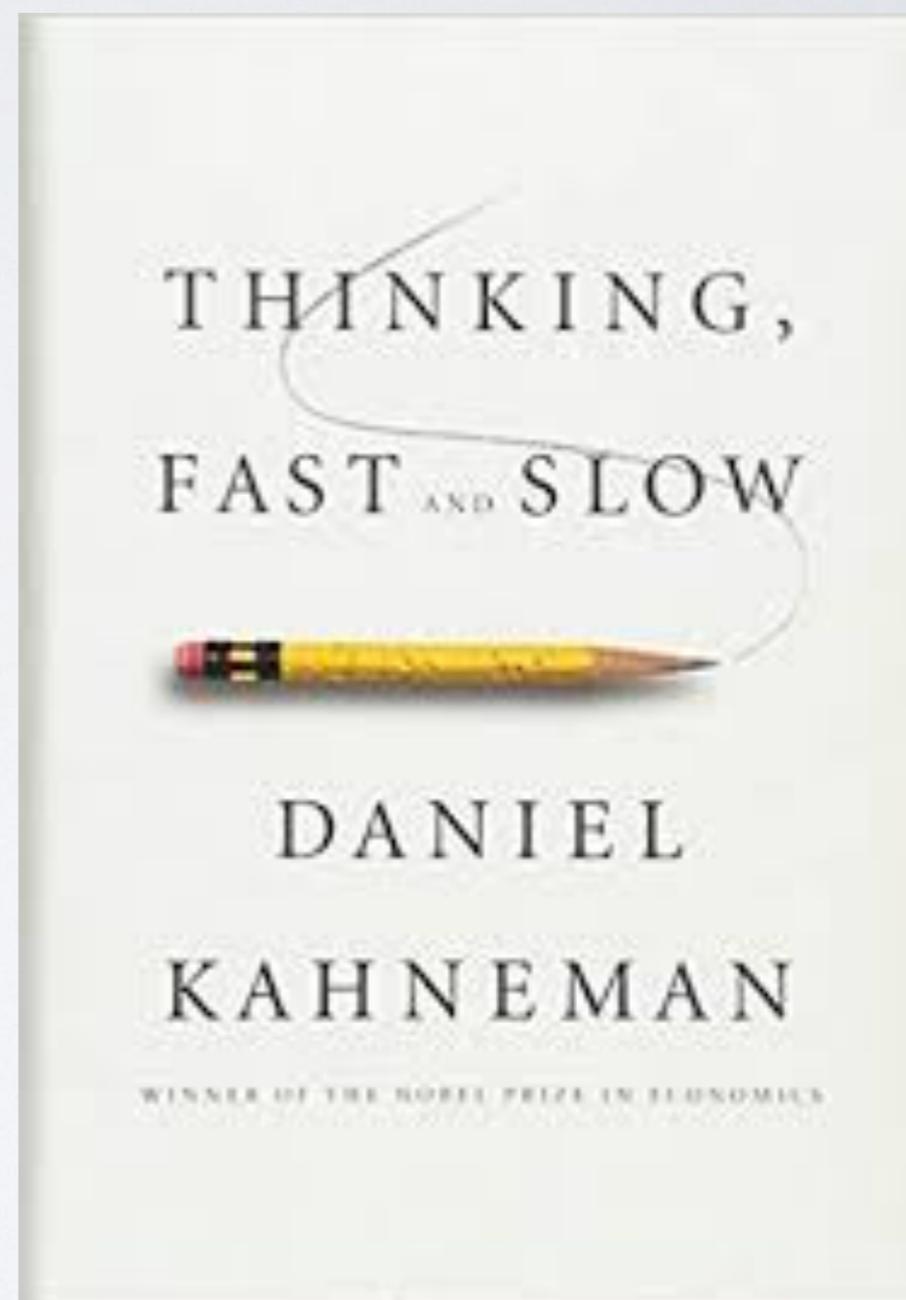
TYPES OF BIAS IN ACADEMIC CONTEXTS

- Many behavioural and decision making biases have been described in the literature: *affinity* bias; *confirmation* bias; *halo* bias; *attribution* bias; *in-group* bias,….

- The effects of cognitive bias are often discussed in the context of gender equality - but bias affects all decisions, and not just "out groups".

Fast thinking and implicit associations

IMPLICIT ASSOCIATION TESTS

- One can take tests on **"implicit associations"**: https:// implicit.harvard.edu/implicit/ selectatest.html

- People who consider themselves liberal typically still demonstrate biases around race, gender etc.
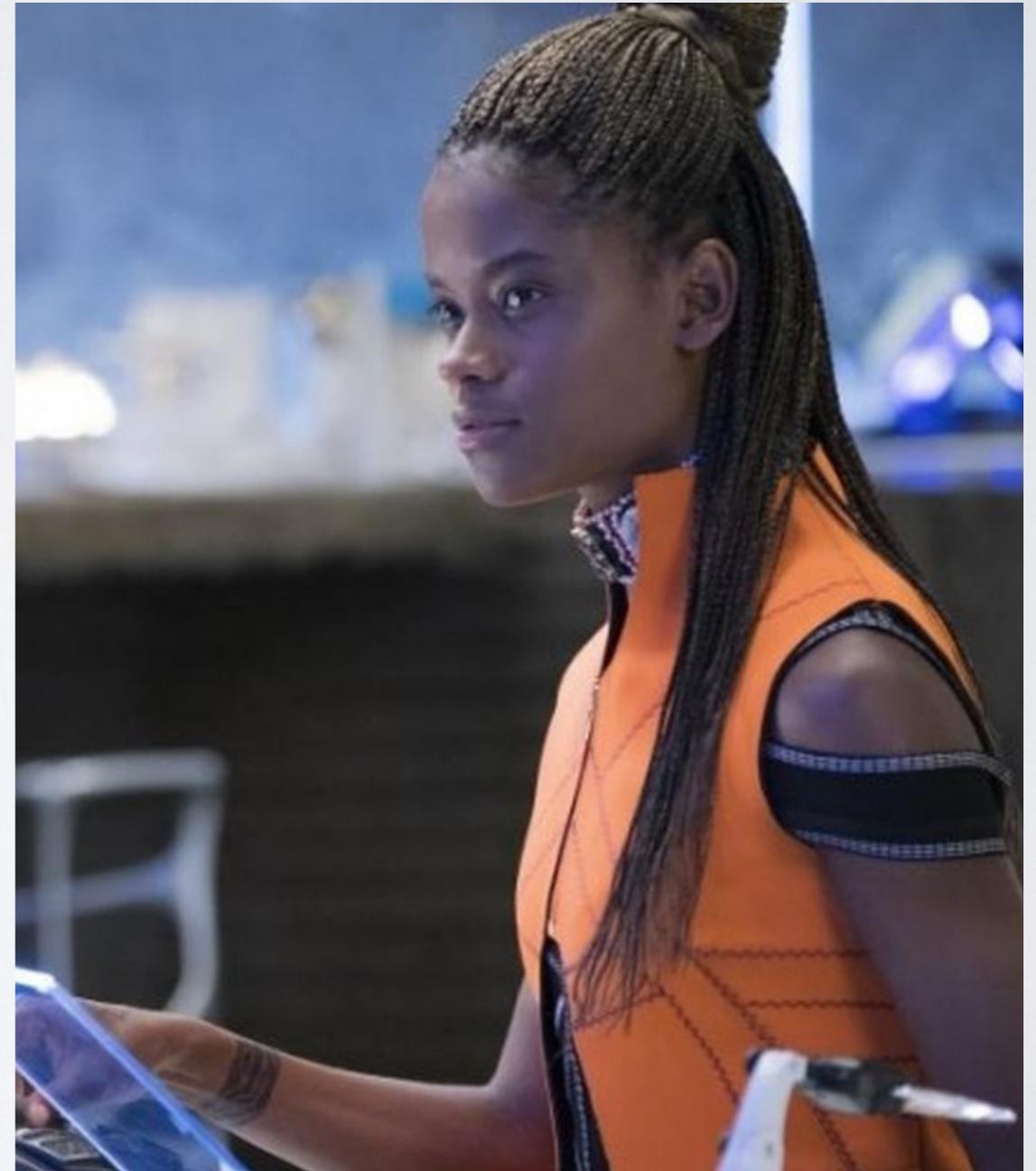
WHAT IS THE TEST?

- Questionnaires measure associations between images and words, with response times recorded.

- E.g. participants associate science with white men; obesity with under-achievement.

- The test primarily probes your "fast thinking".

- Not necessarily predictive of how you actually take important decisions.

ASSOCIATIONS AND EXPOSURE

- In the UK there are 25 black female (full) professors out of ~19,000 professors.

- Black women are ~1-2% of the population.

- Without role models and exposure, people will not associate black women with scientists/professors.

Studies of bias within academia

STUDIES OF BIAS IN ACADEMIA

- https://www.ecu.ac.uk/wp-content/uploads/2014/07/unconscious-bias-and-higher-education.pdf

- **Moss-Racusin et al 2012**: male applicants for senior lab role rated higher than female applicants, offered higher salary.

- Identical CVs (apart from male/female names); women scientists also rated male applicants higher.

RESEARCH STUDIES

- **Racial bias:** Many European studies showing that people with European names are more likely to be shortlisted for jobs (in academia and elsewhere).

- **Bias in peer review:** Blind review/separate review of proposal and PI significantly increases success rate of women (Hubble, Ireland, Canada).

- https://academic.ubc.ca/sites/vpa.ubc.ca/files/documents/Unconscious_Bias_Studies-and-Resources.pdf

TEACHING EVALUATIONS

- Evidence that evaluations of courses by students are biased (March and Roche, review).

- E-course - no instructor contact - evaluated higher if given instructor name is male.

- Non-native speakers; race; LGBT+; disability; age; religion;…..

ADDRESSING BIAS

- 1. **Recognition of biases**

- 2. Actions to address biases

RECOGNISING BIAS: WHY?

- Being aware of biases helps makes **optimal decisions and judgements**.

- Common academic contexts: ranked shortlists for positions and grants; creating balanced conference programmes.
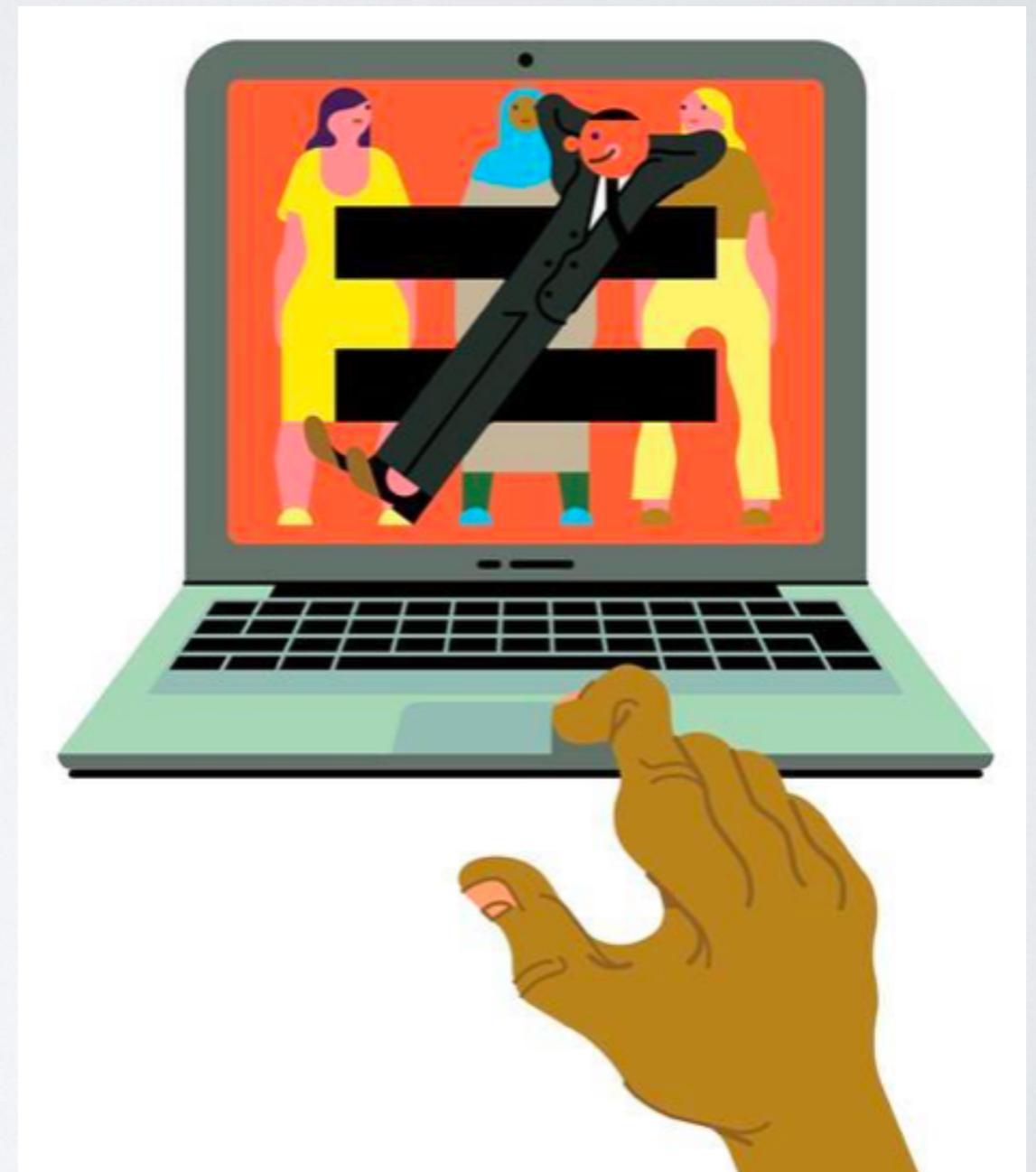
MANIFEST BIASES

- https://www.youtube.com/watch?v=O8UIW_Pi5wU

- McKinsey & Co, switching stereotypical roles of men and women.

- While female scientists could sometimes experience manifest biases of the type showcased in this video, many implicit biases will be much more subtle.

EXPLORING BIASES

- "Write down the names of your ten closest colleagues/collaborators & reflect on their shared characteristics."

- "From which institutions did your postdocs over the last decade come?"

- "Reflect on a recent appointment: what factors led to the final ranking of candidates?"

Responses from focus groups with physicists…..

ACADEMIC BIASES: EXAMPLES

- **Networking and location:** students in top groups have more networking opportunities; their work is more likely to be known by senior leaders.

- Need to put achievements into context, to judge which postdoc candidates have the most potential.

- Researchers from Europe/US manifestly advantaged!

ACADEMIC BIASES: EXAMPLES

- **Family:** academics with family commitments may be implicitly discounted from nomination to leadership roles, not encouraged to apply for promotion.

- **Teams:** people from some groups may find themselves implicitly put into certain roles e.g. administrative rather than decisive.

ACADEMIC BIASES: EXAMPLES

- **Teamwork.** Professor works collaboratively with their students. One contributes most to writing papers; a second does most of the data analysis. Students have been implicitly assigned roles.

- **Plagiarism.** Professor realises they are less sympathetic when judging plagiarism cases involving certain groups of international students.

ACADEMIC BIASES: EXAMPLES

- **Religion.** Academic feels they may have lower opinions of work done by scientists who have strong religious beliefs.

- **LGBT+.** Professor admits that they are uncomfortable and awkward interacting with openly gay students.

EXPERIENCES OF BIAS

- **Pastoral roles**. Academics implicitly steered into pastoral roles (student welfare etc) due to family circumstances e.g. father of four.

- **Part-time**. Academics who work part-time feel they are overlooked for leadership roles, and considered to be not serious about their careers.

EXPERIENCES OF BIAS

- **Committees.** Minority groups do not feel their voices are heard on committees; senior men dominate the agenda and the conversation.

- **Mentoring and support.** Minority groups feel that senior academics champion staff who are like them.

MICROAGRESSIONS

- *"Indirect, subtle or unintentional discrimination against a marginalised group."*

- Often difficult for marginalised groups to raise for discussion as each individual comment seems minor.

MICROAGRESSION: EXAMPLES

- **Racial:** "So, what country are you really from?"

- **Gender:** Comments on appearance (even positive) in teaching evaluations; assuming that women are not academics, but administrators.

- May be individually minor but cumulatively significant.

ACTIONS

- 1. Recognition of biases

- 2. **Actions to address biases**

STUDIES AND REPORTS

- League of European Research Universities https://www.leru.org/files/implicit-bias-in-academia-full-paper.pdf

- Strategies for addressing bias in workplaces https://www.cookross.com/docs/UnconsciousBias.pdf

POLICIES AND PROCEDURES

- Review all aspects of recruitment and promotion procedures, from advertisements, to shortlisting, to interviewing.

- Monitor applications/shortlists/job offers/promotions by gender, race etc and explore significant discrepancies.

INTERVIEWS - AFFINITY BIAS

- Jules and Jim are being interviewed for a position.

- Jules reminds you of yourself; you feel familiar with him; maybe he works on similar topics to you.

- He stumbles in the interview, but you intervene and put him at ease, and the rest of the interview goes well.

INTERVIEWS - AFFINITY BIAS

- Jim's interview goes OK, but you don't really feel a connection with him.

- You didn't notice that he was nervous too, and you didn't step in to put him at ease.

- While you asked Jules and Jim the same questions and got very similar responses, you just have an overall feeling that Jules did better.

GOOD PRACTICE

- Diversity on interview panels - scientific background, nationality, age, gender, race,…

- Standardised questions and format; transcribe summary of responses.

- Faculty positions: invite candidates to stay for several days.

POSTDOCS AND STUDENTS

- In hiring postdocs and PhD students, it is natural to look for synergies and rapport with the grant holder.

- Such synergies can lead to productive science, but of course diverse perspectives can also bring in new ideas.

- Subtle balance, case by case…

MONITORING PROCEDURES

- The UK has linked monitoring and action plans for diversity to (some) research funding.

- Departments need to carry out self-assessments of quantitative data, policies, culture: http://www.iop.org/policy/diversity/initiatives/juno/documentation/page_42632.html

Project Juno Guide (PDF, 310 KB)
An introduction to Project Juno and the process involved

Juno Code of Practice updated November 2018 (PDF, 416 KB)
Contains everything you need to know about becoming a Juno Supporter, Practitioner and Champion

Becoming a Supporter

- Suggested content of letter applying to become a Juno Supporter (Word, 16 KB)

Becoming a Practitioner

- Becoming a Juno Practitioner: a guide to good practice
- Juno good practice checklist (Word, 296 KB)
  A self assessment document to be used as part of the Practitioner application process
- Practitioner action plan template (Word, 25 KB)

Becoming a Champion

Good Practice Guides with extracts from successful submissions and examples of good practice for all of - The Six Juno Principles

Guidance for becoming a Juno Champion and putting together your Champion application

Juno Information sheets

Apart from applying institutional policies and actions…. what can individuals do to address bias?

BIAS IN RECOMMENDATION LETTERS

- Recommendation letters play a huge role in appointments!

- Many studies on bias in letters, particularly gender bias.

Avoiding gender bias in reference writing

Got a great student? Planning to write a super letter of reference?
Don't fall into these common traps based on unconscious gender bias.

Mention research & publications

Letters of reference for men are 4x more likely to mention publications and twice as likely to have multiple references to research. Make sure you put these critical accomplishments in every letter!

Don't stop now!

On average, letters for men are 16% longer than letters for women and letters for women are 2.5x as likely to make a minimal assurance ('she can do the job') rather than a ringing endorsement ('she is the best for the job').

Emphasize accomplishments, not effort

Letters for reference for men are more likely to emphasize accomplishments ('his research', 'his skills', or 'his career') while letters for women are 50% more likely to include 'grind-stone' adjectives that describe effort. 'Hard-working' associates with effort, but not ability.

We all share bias

It is important to remember that unconscious gender bias isn't a male problem. Research shows that women are just a susceptible to these common pitfalls as men.
This is a problem for all of us - let's solve it together!

Keep it professional

Letters of reference for women are 7x more likely to mention personal life - something that is almost always irrelevant for the application. Also make sure you use formal titles and surnames for both men and women.

Stay away from stereotypes

Although they describe positive traits, adjectives like 'caring', 'compassionate', and 'helpful' are used more frequently in letters for women and can evoke gender stereotypes which can hurt a candidate. And be careful not to invoke these stereotypes directly ('she is not emotional').

Be careful raising doubt

We all want to write honest letters, but negative or irrelevant comments, such as 'challenging personality' or 'I have confidence that she will become better than average' are twice as common in letters for female applicants. Don't add doubt unless it is strictly necessary!

Adjectives to avoid:
caring
compassionate
hard-working
conscientious
dependable
diligent
dedicated
tactful
interpersonal
warm
helpful

Adjectives to include:
successful
excellent
accomplished
outstanding
skilled
knowlegeable
insightful
resourceful
confident
ambitious
independent
intellectual

brought to you by:

THE UNIVERSITY OF ARIZONA
Commission on the Status of Women

THE UNIVERSITY

Follow us at: www.facebook.com/uacsw

For an electronic copy of this graphic, see:
www.csw.arizona.edu/LORbias

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Letters of reference for men are 4x more likely to mention publications and twice as likely to have multiple references to research. Make sure you put these critical accomplishments in every letter!

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DEBIASING LETTERS AND REVIEWS

Adjectives to avoid:	Adjectives to include:
caring	successful
compassionate	excellent
hard-working	accomplished
conscientious	outstanding
dependable	skilled
diligent	knowlegeable
dedicated	insightful
tactful	resourceful
interpersonal	confident
warm	ambitious
helpful	independent
	intellectual

https://www.tomforth.co.uk/genderbias/

BIASED LANGUAGE

Gender Decoder for Job Ads

Without realising it, we all use language that is subtly 'gender-coded'. Society has certain expectations of what men and women are like, and how they differ, and this seeps into the language we use. Think about "bossy" and "feisty": we almost never use these words to describe men.

This linguistic gender-coding shows up in job adverts as well, and research has shown that it puts women off applying for jobs that are advertised with masculine-coded language.*

This site is a quick way to check whether a job advert has the kind of subtle linguistic gender-coding that has this discouraging effect. Find out more about how this works.

http://gender-decoder.katmatfield.com

Becoming more aware of biases

UNCONSCIOUS BIAS TRAINING

- Increasingly grant and fellowship panels use unconscious bias training and briefings.

- See e.g. https://www.youtube.com/watch?v=dVp9Z5k0dEE

- See also https://royalsociety.org/~/media/policy/publications/2015/unconscious-bias-briefing-2015.pdf

Action points

- When preparing for a committee meeting or interview, try to slow down the speed of your decision making.

- Reconsider the reasons for your decision, recognising that they may be post-hoc justifications.

- Question cultural stereotypes that seem truthful. Be open to seeing what is new and unfamiliar and increase your knowledge of other groups.

- Remember you are unlikely to be more fair and less prejudiced than the average person.

- You can detect unconscious bias more easily in others than in yourself so be prepared to call out bias when you see it.

UNCONSCIOUS BIAS TRAINING

- Does unconscious bias training work? UK government recently announced that it would scrap such training.

- Good review of evidence: https://blogs.lse.ac.uk/businessreview/2021/03/24/is-unconscious-bias-training-still-worthwhile/

- Awareness training is probably not effective on its own, but should arguably be part of leadership training, EDI action plans etc, with reinforcement of approaches to addressing bias.

EFFECTIVENESS OF TRAINING

- Unconscious biases are subtle, and hard for us to detect within our opinions and decisions…

- A lot of diversity training in academia has concentrated on unconscious biases - assuming that conscious biases no longer exist.

- Unfortunately there is plenty of evidence that this is not the case.

BYSTANDER TRAINING

- Increasing recognition that academia also needs to address *conscious* biases and misconduct.

- Bystander training: how to confront misbehaviour.

- Originally designed for harassment and sexual misconduct but is being broadened in scope.

EXAMPLES

- **Grant panel:** a panel member seems to favour proposal due to affinity with applicant e.g. shared nationality or research connections.

- **Conference organisation:** members of the organising committee are suggesting speakers only from their immediate circles.

- It seems to you that this is explicit cf unconscious bias. What do you do?

POSSIBLE STRATEGIES

- **Grant panel:** objective criteria, peer reviews, ask panellist to justify their support, if unhappy with ranking try to discuss again.

- But this is often not easy, particularly if you need to challenge more senior academics!

- Try using *bystander* approaches….

DESIGNING TRAINING

- Many scientists have low opinions of training courses: irrelevant to academia; full of management speak.

- We have been trialling scientists working directly with management coaches and HR teams to design and evaluate useful training for their disciplines.

- Incorporates addressing bias, but more generally it is about good leadership and working together optimally.

SUMMARY

- Implicit bias is pervasive; it is distinct but related to explicit bias.

- We all generally favour our own "ingroups", regardless of our levels of educational attainment.

- By becoming aware of our biases, we can address them - and make better decisions and judgements.