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Bias in recruitment processes - and what to do about it

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Plan for talk

- What is bias and how can it be detected?
- Unconscious/Implicit Bias vs Systemic Bias.
- Actions against bias advice and toolboxes.

I will draw from e.g.

- Standard initial work (Moss-Racusin et al. 2012 and others)
- Systemic Bias investigated by Wullum Nielsen and others.
- LERU advice papers on Bias and Meritocracy.
- VR the Swedish Research Council.



What is bias?

Bias is a cognitive process, where the cultural and social context affects a person's decisions, judgement and actions.

Unconscious or implicit bias occurs when we make judgements or decisions on the basis of our prior experience, or own deep-seated thought patterns, assumptions or interpretations, and we are not aware we do it.

If unchecked these can lead us into (at best) lazy stereotypes and, at worst, prejudicial or stereotypical behaviours.

It is not only psychology, but also sociology.

Important for Physicists?

Antropology – a classic:

Sharon Traweek – Beamtimes and Lifetimes

- A culture without culture
- what is male, defines excellence

Later studies: (*e.g. Castilla&Bernard 2010*) The dangerous myth of objectivity - makes us more subjective!



How can we "measure" bias?

- 1. Analysing "success rates" or careers.
- 2. "Experiments".
- 3. analysing processes and organisations.
- 4. Experiences from observers.



Evidence of bias 1: The scissors



PhD's: Mens compared to Womens chance to become a Professor aths Physics of a for mention of the other of the other of the other oth 6 ology Mens chance/womens chance 5 4 2 Geo/Env. 1 0 25% 30% 40% 45% 35% 50% 55% % women among PhDs

Flexible cascade model - Science Faculty in Lund

% women



Evidence of Bias 2: Experiments

Evaluations of texts, with grade 1-5

	Men about		Women about	
	Ingvar (Male)	Ingvor (Female)	Ingvar (Male)	Ingvor (Female)
Credible	4.9	3.4	4.5	3.5
Nonchalant	2.6	2.4	2.7	2.3
Humane	2.9	2.7	3.2	3.8
Competent	4.3	3.0	3.7	3.3

Bondestam 2004

Evidence of Bias 2: Experiments

Hiring students for lab manager, rating 1-7



Fig. 1. Competence, hireability, and mentoring by student gender condition (collapsed across faculty gender). All student gender differences are significant (P < 0.001). Scales range from 1 to 7, with higher numbers reflecting a greater extent of each variable. Error bars represent SEs. $n_{male student condition} = 63$, $n_{female student condition} = 64$.

• Moss-Racusin et al. 2012

Evidence of Bias 2: Experiments Abstract for a conference – the Matilda effect



Figure 1. Perceived scientific quality as a function of research topic and author gender.

Note: Graph reports estimated means, with standard errors in parentheses. Means within a research topic category with asterisks and means in a data series with different superscripts differ at p < .05.

Knobloch-Weserwick et al. 2014.

Bias among students?

(Östlin et al. 2020)

An analyses in five dimensions

- 1. The gender of the student
- 2. The gender of the teacher
- 3. The type of subject
- 4. The type of pedagogics
- 5. The form of the evaluation

How does different dimensions affect the outcome?

GENUSBIAS VID KURSVÄRDERINGAR

OLIVIA ÖSTLIN I SAMARBETE MED TOMAS BRAGE, MALIN ESPERSSON OCH RAGNHILD MÖLLER



Examples of bias against women

- Worse evaluations of abstracts for conferences
- Worse student evaluations
- Men 8 times more likely to win awards (?)
- Fewer leadership positions
- Worse letters of recomendations
- •





Actions against bias:

- Awareness training education, information, workshops. (<u>https://implicit.harvard.edu/implicit/</u>)
- It is not enough could be damaging if not done right!
- Need "Bias observers" to remind us during meetings, selection committees etc. (*LERU advice paper on bias and meritocracy 2018 and pilot education at LU 2020-2021*).

Bias 3 Systemic: a) Decoupling

Nielsen (2015) Nature **525** 427 – Study at Aarhus universitet 2004-2013

Professors in interviews:

- we only look at qualifications
- All of our researchers are hired on their merits.
- For us it is all about getting the best candidate

Appointment of Professors and Lecturers:

- 20% closed (30% in later years)
- 40% only one applicant

Women part of appointed professors:

- Closed 12%
- Open 23%

A "Decoupling" by exploiting loopholes etc

Similar results from Netherlands (van den Brink 2010) and Finland (Husu 2000)



Bias 3:a) Decoupling

Other typical decoupling:

- "Strategic" and narrow recruitment.
- Cost and time against hiring external candidates.
- "One more mouth to feed" if recruit instead of promote
- Leading to often "tailored ads" and
- For outsider "there is a clear candidate" no use to apply.

Bias 3: other form of systemic bias

b) Standardisation – bibliometric etc:

- What is excellent journals and publishers?
- Production vs productivity include time avaliable and take care leave etc into account.
- We are looking for quantitative measures, but the choice is always qualitative.
- Find qualitative measures.
- More information: DORA association (<u>https://sfdora.org/</u>)

c) Symbolic boundary work – making "sense" through stereotypes

- Stereotypes to explain why women are underrepresented, e.g.
 - Old sexism: Women are not fit to or it is dangerous for them to do Science.
 - New sexism: Women do not want to do Science or have careers.
 - Cloudy ideas of "risk-taking" and "caring vs competition".

Does Meritocracy work?

We could have concluded that Meritocracy is threaten, since if it was working in a segregated university then:

"The university would be a realm of the justly unequal"

Contradiction!

Bias and non-objectivity destroys meritocracy

which is emphasized by "procedures" to circumvent it!



Actions against bias and for meritocracy

inspired by Wullum Nielsen 2021 and others

- Create open and transparent selection processes
- Close loop-holes
- Monitor meeting procedures educate chairs.
- Broad announcements and widely advertised positions.
- Abandone standardised metric
- Focus on **application**, not "past performance".
- Focus on **quality of research**, not characteristics of researcher.
- Make a time-line of promotion and recruitment processes and let bias observers find "weak spots" and "leakage"
- Appoint an "action force" and employ a diversity manager to keep leaders accountable.



Evidence of bias 4: Observers Ex: Swedish Research Council

Work against bias in evaluation panels.

Wennerås & Vold 1998 Nepotism and sexism in peer review:

- Women had to publish 2.6 times as much as men to receive grants.
 - The "Matilda effect"
- Men supported men, women supported men.
- Cognitive bias: Scientific proximity was rewarding.
- Personal/Institutional bias: someone you know, from your institution
 - The Mathew effect

Swedish research council, cont'd

Later reports (2012, 2016, 2020)

- Different wordings:
 - Male applicants: excellent, respected, a rising star, front figure
 - Female applicants: good, strong, good merits, high novelity
- Questioning women independence from co-authors
 - Supervisors, husbands, relatives, ...
- Leadership: Men trusted, women questioned.

Swedish research council, cont'd

Ageism combined (intersected with) sex:

- Myth of youth "made all major discoveries before 30" which fits male lifecycle
- Age is also an advantage for men (experience, invaluable, world leading), but not for women (too old).

Swedish Research Council – solutions

- Observers were essential followed processes and pointed to bias.
- Clear and transparent processes stick to the criteria and agenda.
- Formalised meetings, down to speaking time and seating.
- No informal discussions in breaks, dinners etc
- Trained panel-members and chairs, with assistants from the council.

LERU advice paper on bias

- 1. Monitor career development and assign responsibilities. Accountability.
- 2. Measures for countering gender bias
- 3. Offer gender **bias training**
- 4. Recruitment and funding processes should be monitored. Use bias observers!
- 5. Evaluate the **language** in recommendations etc
- 6. Eliminate gender **pay gap**
- 7. Evaluate **quality**; Compensate for **care leave**.
- 8. Monitor precarious contracts and part-time positions.
- 9. Use **positive actions** against vertical segregation

LERU re-organized

A. Monitor and analyse:

- Monitor and accountability.
- Inventory of measures against bias.
- Analyse recruitment and funding processes.

B Training and anchoring:

- Bias-awareness training
- Bias-action training
- For leaders and for all

C. Observers:

Introduce external and trained observers.

E. Other measures against bias:

- Pay gap
- Care leave
- Precarious contracts
- Positive action against vertical segregation

D. Toolbox :

- Evaluate the language
- Qualitative measures
- Focus on effectiveness, not productivity (care leave)

• ...

LERU – training of UBO

After a Pilot project in Lund, for N and HT faculties: LERU organise UBO training starting December 7-8, 2021 in Lund. Goal: Train UBO for recruitment processes and create a network.

Future: Train the trainer of UBO, to get sustainable process.



Recruitment processes – a "mine-field of bias"

Inspired by M. Dockweiler, South Danish University

It is not easy...



Thank you for your attention!



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