

Promoting sustainable excellence through diversity in European science careers

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Outline and goals for this talk

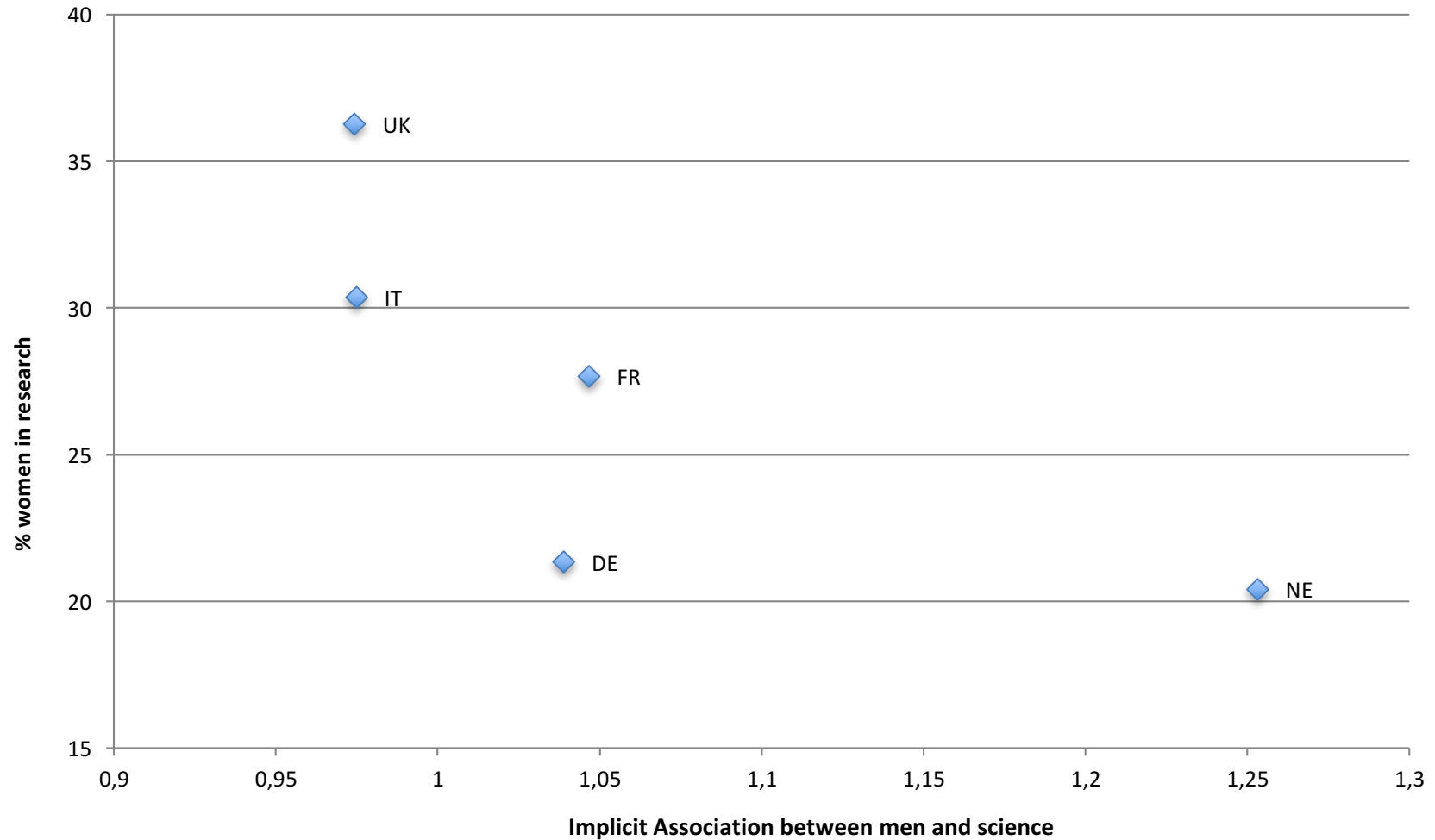
- Promoting *sustainable* excellence through *diversity*
 - In European science careers
 - By addressing gender *bias* in science
- Inspired by:
 - Two ERC CSA projects (ERCAREER, GENDERC)
 - Earlier projects: WiST2, STAGES, TU Delft
- Aimed at exposing career conventions and myths
- Developing design specifications for interventions

Gender bias in science 101

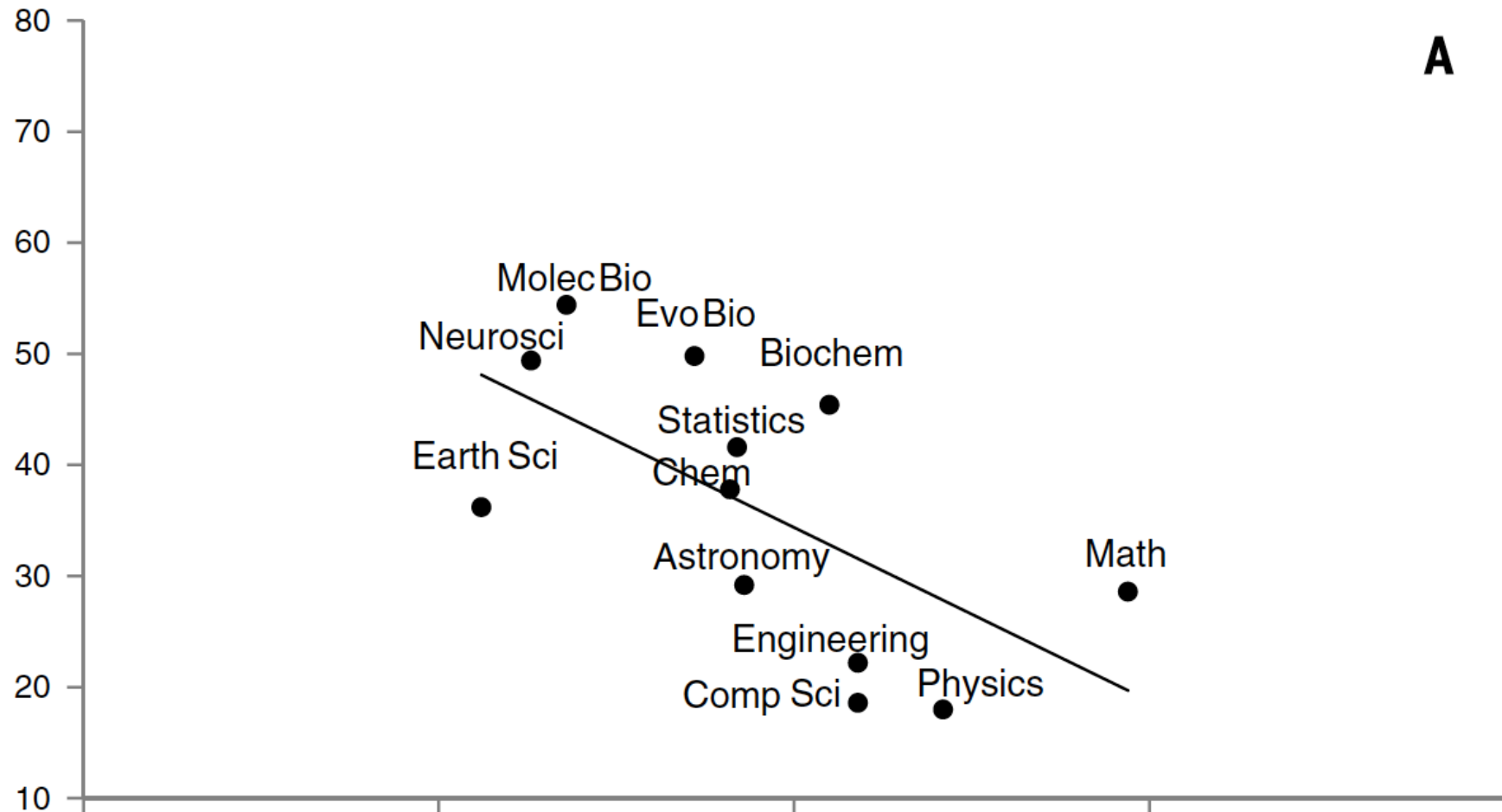
- Gender bias:
 - Commonly used to imply “bias against women”
 - Rather: favoritism, preference for men
- Bias is often implicit, not intentional
- Implicit association:
 - Stronger between “men” and “science”
 - Women are “presumed incompetent”
- We are all biased: <https://implicit.harvard.edu/implicit/>
- Gender bias in science is universal
 - But varies per country and per discipline ...

Miller et al. (2014)

IAT score (national average) related to the % of women in research



Leslie et al. (2015) in *Science*



Field specific ability beliefs (“raw talent” needed) versus % women in science

Career bias in science

- Strong, normative, implicit notions of the ideal career
- Follows from the stereotypical ideal scientist, who ...
 - “... gives total priority to work and has no outside interests and responsibilities” (Bailyn, 2003)
- Linearity assumed
- Translates into conventions such as...
 - Excellence
 - Steady progress (no breaks!)
 - Independence
 - Mobility

Why is bias a problem?

- Ignoring bias is the main reason many diversity efforts fail
- A little bit of bias leads to cumulative disadvantage
- The elite tends to ignore the evidence
 - Raising awareness does not enhance competence
- Challenge: how to prevent bias from affecting decision making / performance evaluation etc

A little bit of bias (small effect size: .07) adds up to cumulative disadvantage

Candidates	100 men	100 women
Entry (50%)	52 hired	48 hired
Promotion 1 (50%)	28 promotion	22 promotion
Promotion 2 (20%)	6 promotion	4 promotion
Promotion 3	1 promotion	0 promotion

Adapted from Agars (2004)

Examples of biased decisions @ERC

- ERC wants “excellence only”
 - Allows for “unconventional careers and breaks”
- Women’s success rates systematically lower than men’s
 - Especially in the life sciences
- Extensions for parental leave
 - Enhance women’s success rates
 - Decrease men’s success rates
- “Part time counts as full time”
 - But around 20% of applicants has worked part time
- Selective application of criteria in panels
 - Example: International mobility

Myths versus reality?!

- Analysis of career histories of ERC applicants
 - Five patterns identified, labeled as dances
 - No single typical career found, and “excellence is everywhere”
- But: conventional careers seem to be most rewarded
 - Steady progress and early advances
 - International mobility signals excellence
- The ideal scientist / ideal career does not exist
 - Reality: dual earners with care responsibilities
- Sustainable excellence? Allowance for alternative routes and compensation for time to care should be made more inclusive

Some questions

- What is considered a “conventional” career in science, for women and men?
 - How common is a conventional career? 6 in 10?
 - Is paternity leave as (un)conventional as maternity leave?
 - CERN UN recommendation of “equitable parental leave” as a strong signal to women
 - Can we allow “unconventional” careers without this knowledge?
 - Can we mitigate the effects of gender *and* career bias on decisions?
- How can we promote sustainable excellence by creating more diversity in careers?
 - Existing career system can no longer guarantee optimal outcomes under changing demographic conditions

Interventions: design specifications

- Engage gatekeepers
 - Involve decision makers / power holders
 - Enhance accountability and transparency
- Mitigate bias
 - De-bias HR processes rather than mindsets
 - Conscious and competent
- Improve decision making
 - Selection, promotion, performance evaluation
 - Focus on operationalization and application of criteria

Engaging Gatekeepers, Optimizing Decision Making, and Mitigating Bias: Design Specifications for Systemic Diversity Interventions

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Abstract

In this contribution to the *Journal of Applied Behavioral Science* special issue on Understanding Diversity Dynamics in Systems: Social Equality as an Organization Change Issue, I develop and describe design specifications for systemic diversity interventions in upward mobility career systems, aimed at optimizing decision making through mitigating bias by engaging gatekeepers. These interventions address the paradox of meritocracy that underlies the surprising lack of diversity at the top of the career pyramid in these systems. I ground the design specifications in the limited empirical evidence on “what works” in systemic interventions. Specifically, I describe examples from interventions

Thank you for your attention!

Questions?

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