

Implicit bias in academia: A challenge to the meritocratic principle and to women's careers - And what to do about it

Executive summary

Aims of the paper

This paper examines the mechanisms behind the loss of female talent in academia. It is well known and amply documented that in Europe and elsewhere a significantly larger number of women than men do not reach the higher echelons and leadership positions in academia when compared to the number of entrants into the profession (usually doctoral graduates). Moreover, this situation is generally not improving at a satisfactory rate, although good efforts are undertaken. In a 2012 paper LERU argued that the "leaky pipeline", as the phenomenon is sometimes called, undermines the quality of research and represents an unacceptable loss for academia, the economy and society. The paper showed what LERU and other universities are and should be doing to address gender imbalances.

Looking at the question of what hampers women's progression in academic careers, the current paper focuses on the phenomenon of bias. A large body of research points to implicit bias as a significant impediment to women's advancement in an academic career. Reviewing available evidence, the paper shows how implicit bias plays a role in processes where important career impacting decisions are made, i.e. in academic recruitment, retention and advancement, as well as in the allocation of research funding. The paper sets out possible actions to counter implicit bias. It is targeted at all those responsible for good governance at universities, at research funding organisations at national and European levels, at leaders, policy makers and all other members of the scientific community and society at large.

What is implicit bias?

Bias is a cognitive process which can be defined as skewed information processing under the influence of context and accumulated experience. Broadly speaking, we act on the basis of internalised schemas, which we use to make the task of processing information efficient and manageable. However, these useful, cognitive "short-cuts" can also mislead us, because they tend to make us pay more attention to information that confirms our expectations and less attention to disconfirming information, thus introducing biases. Bias is at play in many everyday situations, it affects all of us, and there are many issues that are in specific situations influenced by bias, among them ethnic and regional identity, race, age, sexual and religious orientation and gender effects, for which intersectionality effects may occur.

In this paper the term implicit bias is used to mean that human beings are not neutral in their judgement and behaviour but instead have experience-based associations and preferences (or aversions) without being consciously aware of them.

In as far as bias plays a role in assessment procedures, e.g. in recruitment, promotion or funding decisions, it is a challenge to

prevailing meritocratic principles in academia. Meritocracy dictates that access to power and resources be granted to those who deserve it: academics get tenure, secure scarce research funding, and publish in prestigious journals through rigorous competition which should naturally drive the most excellent to the top. The idea that the recognition of excellence solely on the basis of pure merit does not always work well in practice and that academic excellence is not always gender-neutral is not an easy subject in the academic world. LERU believes it is crucial to recognise that the rules of meritocracy can be inadvertently circumvented, but also that true commitment can help to avoid a discrepancy between idealised meritocratic beliefs and the *de facto* functioning of assessment procedures.

The impact of implicit gender bias

There is ample evidence that implicit gender bias plays a role in academia in several ways (as it does in other organisations and in society at large). This paper analyses how it operates in working conditions, in recruitment processes and in funding situations.

1. Bias in working conditions

Firstly, bias is a factor contributing to vertical segregation, i.e. the fact that women do not reach the most senior and leading positions at universities in the same proportions as men do. It also helps to explain other inequalities, namely the fact that the statistically demonstrated gender pay gap in academia, which is larger than in the labour market in general, persists, and the fact that academic women hold more part-time jobs and more precarious contracts, which tends to be influenced by implicit bias assumptions related to stereotypical male-female notions about commitment to the job, parenting roles, etc.

2. Bias in recruitment and career advancement processes

There is an undeniable body of evidence showing that bias against women operates in recruitment and selection processes already for early-career female researchers. Bias can creep in when advertising positions, in the composition and working methods of selection committees and in the language itself of evaluations.

3. Bias in funding situations

EU statistics show higher male applicants' success rates in funding competitions (about 4% as an average across Europe) and some studies point to male applicants receiving higher quality evaluations of *researcher*, although not higher quality of *proposal*, in funding competitions.

Key areas for countering bias

Universities can take action to mitigate and eliminate gender bias in their organisations. LERU proposes that there are three key areas for action. Examples are given in the paper to illustrate what LERU universities are doing on these three fronts.

1. Showing leadership, vision and strategy

Bias, as an issue which is likely to generate some resistance to change within the university and the research community at large, must be tackled by the university leadership as a way of changing culture. Leaders are better placed than anyone else to explain why change is necessary and to support change, while upholding the principles of meritocracy. It is important that current and future university leaders are trained in leadership in general. Leadership training should also include aspects of how to overcome bias and bias-related resistance to change and universities should pay attention to implicit bias in their efforts to increase the number of women leaders in their institutions.

2. Implementing structural measures

Universities do and should provide both individually and structurally targeted measures to help debias the organisation. Measures can be directed at such areas as vertical segregation and advancement, gender pay gap, part-time positions and precarious contracts. Actions by LERU universities include conducting university-wide reviews of job advertisements, appointing gender "vanguards" in all academic staff evaluation and selection committees, developing guidelines to make selection procedures transparent, using external evaluators, briefing evaluation committees immediately before the assessment, providing mandatory or voluntary training on bias to various staff categories (and also to undergraduate students), developing fact sheets, online resources and other information tools to increase knowledge about bias, and more.

3. Ensuring effective implementation across the institution

Transparency, accountability and monitoring ensure the effective implementation of actions. Measures to debias a process involve creating contexts in which actors make themselves accountable for outcomes, and creating conditions that heighten decision makers' ability to act responsibly. In complex and multi-layered organisations such as universities, accountability

must be given and taken at all organisational levels. At some LERU universities, for example, deans of faculties are held accountable for lack of progress. Monitoring can happen in the context of successive multi-annual gender action plans and through annual reporting, both of which are the case at many LERU universities.

Conclusions and recommendations

There is ample evidence that implicit bias is a (if not the) major cause of less favourable assessment of women's academic capacities in research, teaching and leadership. This bias is present in access to power and to resources, including salaries and research funding. However, bias, when properly understood and recognised, can be mitigated and should be overcome. It is an obligation of institutions and their leaders to act against bias at all levels and foster an institutional culture in which bias is clearly understood as a breach of the principle of meritocracy.

The ideas developed in this paper, grounded in a thorough consultation among the LERU universities and strengthened by the examples of actions at LERU universities, lead us to formulate nine recommendations for universities and other stakeholders, primarily research performers, funders and policy makers, listed in the box below.

LERU's key recommendations on how to counter implicit bias

- R1. Universities and other research institutions need to have regular **monitoring** in place to examine whether their organisational structures and processes are susceptible to a potentially biased access to resources that cannot be justified by the meritocratic principle. If so, they should develop and implement a plan to mitigate any identified bias. It is crucial that the university's leadership commits to this plan, sees it through with appropriate encouragement, support and initiatives, throughout the organisation. Clear **accountability** should be assigned, with final responsibility for action resting with the President/Rector and the governing body.
- R2. Universities and other research institutions should examine crucial areas of potential bias and define **measures** for countering bias. Progress needs to be monitored and, if necessary, measures re-examined and adjusted.
- R3. Universities and other research institutions should gather expertise and organise **gender bias training** in various formats, including the possibility of anonymous training. There is no shortage of national and international resources which organisations can use.
- R4. **Recruitment** and/or **funding** processes should be as open and transparent as possible and be genuinely merit-based. This includes measures such as briefing selection committees about bias pitfalls, deciding on clear selection criteria at the outset, letting **external observers** monitor the selection process and involving external evaluators.
- R5. There should be close monitoring of potential **bias in language** used in recruitment processes.
- R6. Universities should undertake action towards eliminating the **pay gap** and monitor progress, examining bias as a contributing factor to pay gap.
- R7. Employees should be compensated for **parental leave**, making sure the process is bias-free, for example by extending fixed-term positions or calculating the leave administratively as active service, yet exempt from publication expectations.
- R8. Universities and other research institutions should monitor **precarious contracts** and **part-time positions** for any gender-based differences and correct any inequalities. Universities should examine conditions for part-time positions for professors and their gendered division.
- R9. Universities and other research institutions should undertake **positive action** towards a proper representation of women in all leading positions, making sure that leadership and processes around leadership are free from bias.

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About LERU

LERU was founded in 2002 as an association of research-intensive universities sharing the values of high-quality teaching in an environment of internationally competitive research. The League is committed to: education through an awareness of the frontiers of human understanding; the creation of new knowledge through basic research, which is the ultimate source of innovation in society; the promotion of research across a broad front, which creates a unique capacity to reconfigure activities in response to new opportunities and problems. The purpose of the League is to advocate these values, to influence policy in Europe and to develop best practice through mutual exchange of experience.

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LERU publishes its views on research and higher education in several types of publications, including position papers, advice papers, briefing papers and notes.

Advice papers provide targeted, practical and detailed analyses of research and higher education matters. They anticipate developing or respond to ongoing issues of concern across a broad area of policy matters or research topics. Advice papers usually provide concrete recommendations for action to certain stakeholders at European, national or other levels.

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