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Gender Equality and Diversity

Academic careers and gender bias

A guide for academic appointment committees and panels

She is a good candidate.

But is she the
best for this job?

She should be on

the shortlist.

But does she
fit in with us?

She is

a hard worker.

But is she
brilliant enough?

She

has published a lot.

But always on
soft topics ...

She would be generally

well-suited.

But with two children, how
important is science to her?

She

fulfills the criteria.

But honestly —
is that enough?

Women are brilliant, men are hard-working.

Or the other way round?

EXECUTIVE SUMMARY



More women (approx. 51%) than men have received a doctorate from the University of Vienna since 2004/05.



The number of female post-doctoral researchers has stagnated at just over 40% since 2004.



Female professors (including tenure track professorships) make up less than 33% of professors in 12 out of 20 university faculties/centres in 2019.

Why is this gender gap in academia so persistent?

International studies and experiments have revealed well-established and powerful assumptions and stereotypes that influence our actions. The statements in this executive summary refer to a series of studies on the

topic of gender bias that will be further elaborated on in this guide. These studies focus on gender but the same mechanisms apply to other social and cultural markers (background, class, age, etc.).

Here are some examples of how gender bias works:

STEREOTYPE

Men are more brilliant than women

(cf. Ch. 1, Leslie et al 2015)

- Expressions such as “most gifted”, “best qualified” or “rising star” are used more often when men are being appraised (testimonials, letters of recommendation). (cf. Ch. 3, Schmader et al 2007)
- In experiments, publications with randomly assigned authors’ names tend to be rated as more important when attributed to men and dealing with male gender-typed topics. (cf. Ch. 4, Knobloch-Westerwick et al 2013)
- Disciplines with a supposedly high “brilliance factor” see themselves as “[...] less welcoming to women”. (cf. Ch. 1, Leslie et al 2015, p. 264) If women nevertheless manage to reach a top-level academic post, they are frequently seen as highly unusual and/or quota women.



Does your committee ...

- question the use of superlatives such as “rising star”? Can a woman be a “rising star” too?
- assess publications according to their actual quality, independent of sex/gender, thematic focus and research network?
- equate a higher proportion of women with a devaluation of the respective field?
- comply with the requirements of the affirmative action plan, e.g. being obliged to give reasons why a selection proposal sent to the Rector does not include any women?



STEREOTYPE

Women are factors of uncertainty, men are guarantors of success

(cf. Ch. 2, Van den Brink and Benschop 2013)

- Men are often accredited with a higher level of “fit” in a job, particularly in predominantly masculine environments. (cf. Ch. 2, Van den Brink and Benschop 2013)
- Scientific quality and “potential” is called into question more often for female candidates than for male candidates. (cf. Ch. 3, Madera et al 2018)
- In experiments, identical applications in academia tend to be rated more highly when attributed to men. (cf. Ch. 5, Moss-Racusin et al 2012, Steinpreis 1999)

Does your committee ...

- define clear factors for evaluating the quality of scientific output and applications?
- demand detailed reasons and discuss any contradictory evaluations?
- critically scrutinize any arguments regarding a candidate’s “fit”?



STEREOTYPE

The compatibility of family and work is a women's issue

(cf. Ch. 5, Winker 2015, Beckmann 2016)

- The “round-the-clock availability” paradigm pushes more women than men out of an academic career based on the assumption, amongst other things, that they will have to take on family care responsibilities. (cf. Ch. 6, Van den Brink 2015)
- Scientific quality is measured by output, without sufficient consideration of time spent on family care (children, other relatives in need of care). (cf. Ch. 6, Mason et al 2013)
- Mobility often leads to a re-traditionalisation of gender roles in partnerships. (Ch. 7, Thais and Padilla 2017, Jöns 2011)

Does your committee ...

- ask women — but not men — how they organise their private lives?
- see (younger) women (with or without children) as not being 100% devoted to their research and therefore less suitable?
- take care responsibilities into consideration with regard to a candidate's scientific age and is this communicated to the applicants?
- only measure mobility and internationality on the basis of how often and how long candidates have spent abroad or does it also use other criteria?

The University of Vienna is committed to equal opportunities in selection procedures and aims to increase the proportion of women in top-level academic positions.

You can contribute to this by ...

- taking sufficient time for the process of discussing and selecting a candidate.
- questioning the reasons behind decisions.
- pointing out unchallenged assumptions and stereotypes on your committee.
- being aware of your own (gender) bias.

Thank you.

Foreword

Actively searching for and recruiting highly qualified academics is one of the most important tasks of a university. Your contribution and commitment in academic appointment committees and tenure track panels is a crucial part of this process. I would like to take this opportunity to thank you for your work. It is our goal to procure the best candidates for the University of Vienna by means of a thorough selection procedure. However, a series of international studies shows that our actions and decisions are often influenced by unconscious views and presuppositions that can undermine this goal. This unconscious bias can, for example, cause us to unintentionally make the main selection criterion the extent to which the candidate resembles ourselves or is familiar to us in some way. Aspects such as background, skin colour, age or gender play a decisive role in this. Gender bias in academia, in particular, has been well documented and analysed, and the phenomenon of the “leaky pipeline” makes it evident. Women also continue to be under-represented in top-level positions at the University of Vienna, although more women than men have been

awarded a doctoral degree for many years now. We have recently managed to appoint numerous women to professorships, particularly in the fields of arts, cultural and social sciences, but the proportion of women at professor level (including tenure track professorships) is still below 33% in 12 out of 20 faculties and centres in 2019.

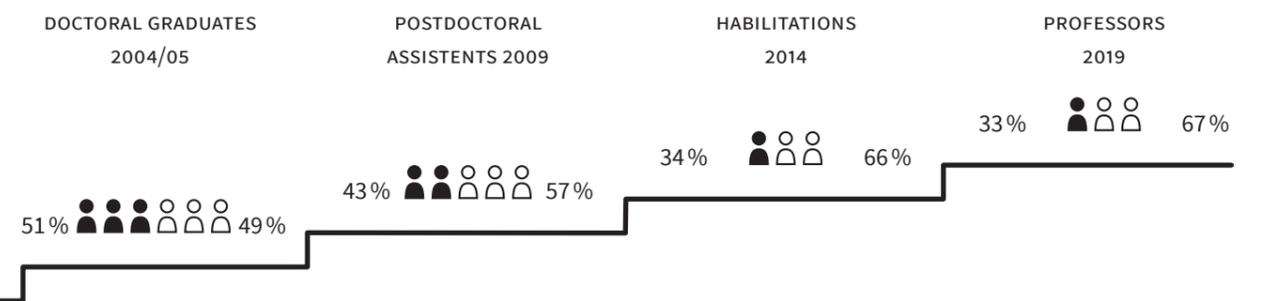
This guide outlines the way gender bias works in academic careers and is intended to encourage you to reflect on and discuss aspects of unconscious bias in your work on academic appointment committees and, if necessary, to point out unchallenged assumptions and stereotypes. The future of the university lies in the quality and variety of its researchers and lecturers. Thank you for contributing considerably to shaping this future with your work.



Heinz W. Engl
Rector, University of Vienna

Leaky Pipeline at the University of Vienna

● WOMEN ○ MEN



Source: Human Resources Reporting, University of Vienna, as at April 2019.

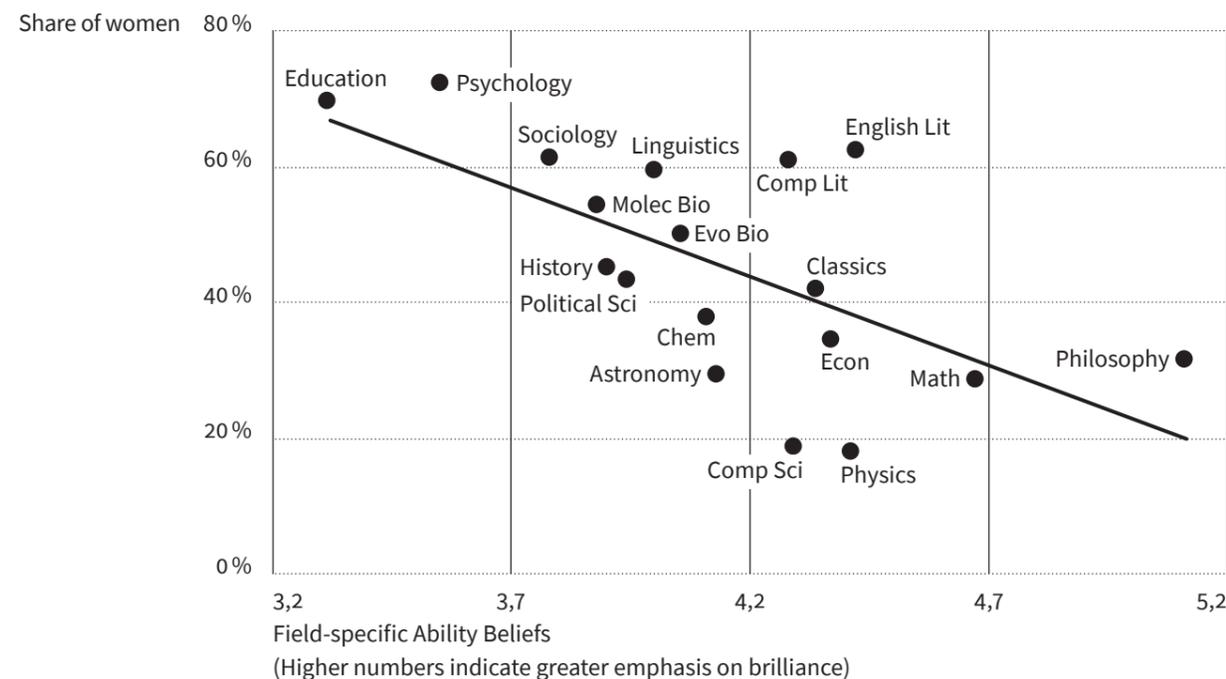
1. Gender bias in field-specific cultures

The idea of brilliance and “genius”, in the sense of an innate talent that cannot be acquired and is indispensable for certain academic achievements, is deeply rooted in the scientific community.

The following diagram demonstrates the kind of gender bias that this idea communicates: it shows the correlation between how much brilliance practitioners in a specific field think someone in their field must have and the proportion of women PhD graduates in these fields in the USA. The results show that the higher a field is rated with regard to the amount of brilliance required, the lower the proportion of women in it.

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Correlation between “brilliance factor” and proportion of women



cf. Sarah-Jane Leslie, Andrei Cimpian et al: Expectations of brilliance underlie gender distributions across academic discipline, Science 16 Jan 2015, Vol. 347, Issue 6219, pp. 262 – 265

2. Networks and gatekeepers

Networks are seen as a key factor when starting an academic career, as well as for further career options. They play a decisive role in accessing academic posts, research funding and visibility, and thus influence academic output. In particular, so-called Gatekeepers (academics in key positions) are extremely important when recruiting applicants for top-level academic positions. They can significantly influence the list of potential candidates for a position by first searching within their own networks for potential candidates.

A study on gender and academic networking (cf. van den Brink and Benschop 2013) came up with two terms in this context which each have a clear gender connotation: trust and risk. Trust stands for “similarity” and “a

model for success” and has a broadly male connotation: since many fields are male-typed and their “gatekeepers” are mainly men, they tend to reproduce that which is known and familiar to them. Women on the other hand are seen as riskier candidates as far as their competence, congruence and commitment is concerned. An important term in this context is the “fit” of a person with regard to a certain position: in academic appointment committees it is repeatedly argued that someone would fit in well, or not so well, in a particular field, regardless of their expert know-how. This “fit” conceals an unspoken field-specific culture that is, in turn, influenced by its dominant networks and susceptible to gender bias. (cf. Zimmermann 2006)



3. Support and recommendations

The support of a mentor plays an important role, particularly at the postdoc stage, for example in the form of a letter of recommendation. Several studies suggest that there are differences in how such letters are formulated, depending on whether the person being recommended is a man or a woman. This affects, for example, the use of expressions referring to excellence, such as “outstanding”, “best qualified”, “most

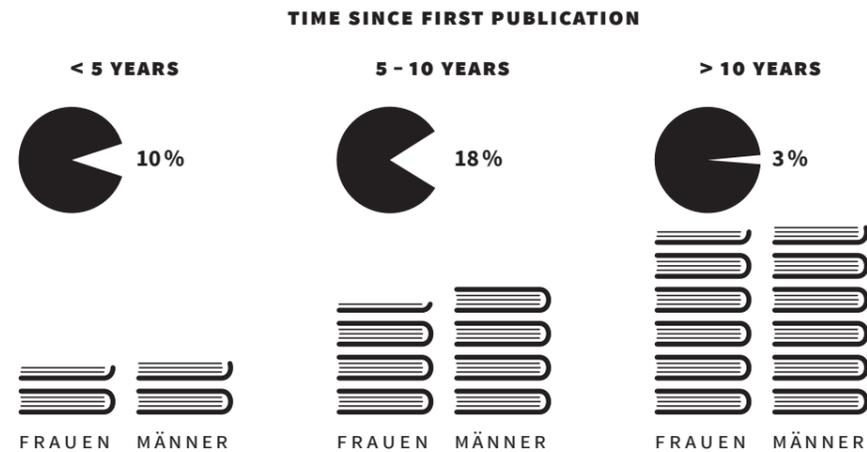
gifted” or “rising star”. (cf. Schmader et al 2007) Moreover, one study published in the Journal of Business and Psychology came to the conclusion that letters of recommendation for female academics are more likely to contain expressions and phrases that communicate doubt about their quality and performance and have a negative impact on their chances of selection. (cf. Madera et al 2018)

4. Publications

Scientific publications are considered the primary measure of research productivity and quality. They are the decisive criterion when awarding grants, filling posts and assigning research projects. (cf. Sayer 2016) However, publishing your research also constitutes an ongoing competition for recognition and visibility. This is closely connected to networks and support systems, in which a general trend towards a gender gap has manifested itself: the proportion of men in the prestigious first and last author positions is greater, in addition women are clearly underrepresented as sole authors. (cf. West et al 2013) A study by Knobloch-Westerwick et al (2013) also brought to light a clear gender bias: conference contributions were randomly attributed to men or women and then young academics assessed them

on quality. The contributions attributed to men were rated as being of significantly higher quality than those attributed to women, in particular when they dealt with topic areas more usually associated with men. These factors, in combination with gaps in their publishing record due to time spent on care responsibilities (see: compatibility of family and work), lead to a lower average publication output amongst female researchers. The largest discrepancy, according to a study of German researchers, occurs in the mid to senior post-doc stage (5-10 years after their first publication): in this period women published 18 % less than men. They were able to more or less close this gap later: in the later stages of their career (as of 10 years after their first publication) the difference was only 3%. (cf. Elsevier 2015)

Publication gaps



cf. Elsevier: Mapping Gender in the German Research Arena, 2015. [Report]

5. Selection procedures

Filling academic posts is especially tied to the expectation that achievement always prevails and objective criteria determine success. Studies show, however, that academic staffing decisions are rarely taken without regard to gender. In a study by Moss-Racusin et al (2012), 127 professors of biology, chemistry and physics received an application for the position of a laboratory manager. Half of the identical applications were given a male name and the other half a female name. They were asked to assess competence, hireability, and the extent to which this person appeared worthy of mentoring, as well as the initial salary level they would offer them. Independent of the gender of the evaluators, female applicants were rated significantly lower in all fields and given a noticeably lower initial salary.

cf. Moss-Racusin, C.A. et al: Science faculty's subtle gender biases favor male students, PNAS, October 9, 2012.

Assessing applications



Initial salary



Fictitious applications



cf. Steinpreis R.E. et al: The Impact of Gender on the Review of the Curricula Vitae of Job Applicants and Tenure, Sex Roles 1999, Vol. 41, No 7/8.

A similar conclusion was reached by a study that gave identical CVs for a post-doc position a male name or a female name and sent them to a large number of researchers for evaluation. The fictitious female applicant was put forward for the job significantly less often than her male counterpart, independent of whether the assessors were men or women. (cf. Steinpreis et al, 1999)

6. Compatibility of family and work

Care responsibilities are often unequally distributed between genders, and not only is child- and family care usually ascribed to women, but also the responsibility for keeping people in the family environment performing well. (cf. Winker 2015) The intertwined nature of care and gender is one of the basic structural foundations of our social order and is also reflected in the day-to-day operation of academia. (cf. Beckmann 2016)

Traditional gender roles and stereotypes come into play with the issue of children in particular. In job interviews women are often asked how they organise their private life and to justify this, whereas men for the most part are not required to reveal their family obligations. (cf. van den Brink 2015) This is based on the assumption that women take on family obligations and care duties, whereas men are given the freedom to get on with their professional activities.

The myth that success is only achievable with a “round-the-clock availability” persists in academia in particular. The real — as well as anticipated — unequal distribution of the burden between the sexes contributes towards the Leaky Pipeline, especially at the post-doc stage, as a comprehensive longitudinal study of more than 160,000 PhD graduates’ careers in the U.S. showed in many different ways. According to this, the birth of a child changed the career goals of women to a greater extent than it did for men: 41% of women but only 20% of men who had a child at the post-doc stage of their career gave up professorship as a career goal. Conversely, this has the effect that 39% of female academics but only 23% of male academics did not have children. (cf. Mason et al 2013) These findings echo the results of a survey of the Austrian Institute for Family Research: there, 44% of female researchers aged between 40 and 45 did not have children, although only 10% of all those under 35 years of age did not want any children. (Baierl 2016)

Child or career



vgl. Mason, M.A. et al: Do Babies Matter? Gender and Family in the Ivory Tower, 2013.

7. Mobility

Following Fahey und Kennway (2007), Leemann (2010) writes, »[...] The ideal type of an academic entrepreneur is nomadic and monadic, is de-territorialised, disembodied and dis-embedded«. This ideal clashes with the reality of social ties and commitments and other mobility constraints (e.g. health or financial issues). Particularly in the early stages of a career, mobility has become a pivotal requirement of a successful academic career, though for many researchers it remains a reality for a very long time. The incompatibility of this career model with a life centred around continuation and predictability (with or without children) has clear gender-specific consequences: if women choose to have a relationship and/or children, this frequently

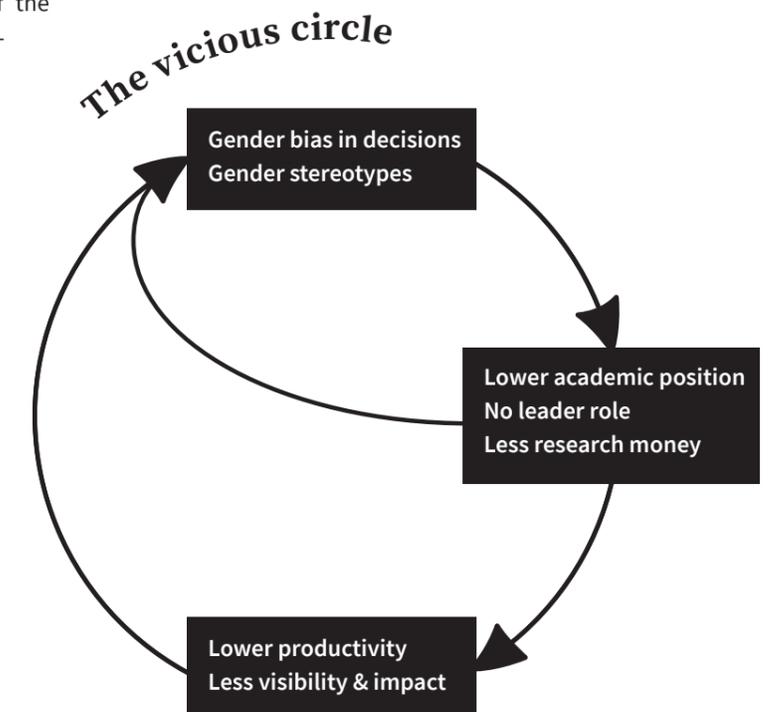
leads to a re-traditionalisation of gender roles in the context of mobility and to women lowering or giving up their career goals. (cf. Thais and Padilla 2017) The subsequent lower levels of mobility and internationality among female researchers not only lower their career opportunities but also reduce their symbolic capital as a researcher (networks, recognition, prestige). (cf. Jöns 2011) Requiring a specified amount of time spent abroad can therefore clearly have gender-specific implications as a pre-requisite for certain academic posts. Such requirements prevent discussion of whether the desired degree of internationality could be achieved by means of several shorter stays abroad, for example. (cf. Ackers 2010)

8. Summary

International studies provide evidence of the multi-layered effects of gender bias in academia. Especially at the post-doc stage, the cornerstones of an academic career model (mobility, high publication output, permanent availability), in combination with enduring gender roles and gendered attributes, have clear gender-dependent implications.

Van den Besselaar and Sandström (2017) refer here to a vicious circle: gender bias leads to women tending to occupy the lower and middle-level academic positions, where they have fewer resources and decision-making powers. This has a negative effect on their performance and visibility (e.g. number of publications, grants, external funding), which in turn reproduces a gender bias.

This guide aims to contribute towards breaking this vicious circle and to present an impulse to reflect on the mechanisms of gender bias — but also on other aspects of unconscious bias — in academic selection processes.



cf. Van den Besselaar, P., Sandström, U.: Vicious circles of gender bias, lower positions, and lower performance: Gender differences in scholarly productivity and impact, PLoS One 2017, Vol. 12, Issue 8.

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Recommendation:

THE ROYAL SOCIETY
Understanding Unconscious Bias
Animation. 2015



<https://royalsociety.org/topics-policy/publications/2015/unconscious-bias>

Imprint

PUBLISHED BY:
Gender Equality and Diversity Unit, University of Vienna

RESPONSIBLE FOR THE CONTENT:
Waltraud Schlögl
Kerstin Tiefenbacher
Lena Lisa Vogelmann
Sylwia Bukowska

Many thanks to the Unit for Quality Assurance,
in particular to Michael Hofer.

GRAPHIC DESIGN AND LAYOUT:
Barbara Weingartshofer, www.nau-design.at

Cover Design inspired by »How To Suppress
Women's Writing« by Joanna Russ,
published by University of Texas Press, © 1983

TRANSLATION:
Sue Norris, www.norrisandsteiner.at

PRINT:
Druckerei Janetschek

Vienna, December 2019

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Contact

GENDER EQUALITY AND DIVERSITY UNIT, UNIVERSITY OF VIENNA
Universitätsring 1, 1010 Wien
T +43 (1) 4277-184 31
E femail@univie.ac.at
W <http://gleichstellung.univie.ac.at>

EQUAL OPPORTUNITIES WORKING PARTY, UNIVERSITY OF VIENNA
A-1010 Wien, Universitätsring 1 (1. Stock, Raum 01.185)
T +43 (1) 4277 - 205 01
E gleichbehandlung@univie.ac.at
W <http://gleichbehandlung.univie.ac.at>



