DIVERSITY AND DISCRIMINATION IN RESEARCH ORGANIZATIONS

EDITED BY CLEMENS STRIEBING, JÖRG MÜLLER AND MARTINA SCHRAUDNER

OPEN ACCESS BOOK

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INVESTOR IN PEOPLE

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committees for application-oriented research and innovation projects, among others as Director of the Gendered Innovations Webpage and member of the Gender Summit Committee. She is among others member of the German Dialogplattform Industrielle Bioökonomie and Zukunftskreis of the Federal Ministry of Research and Education.

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Margherita von Brentano Center for Gender Studies at Freie Universität Berlin. She wrote her doctoral dissertation as part of the International Research Training Group "Between Spaces" of the Institute for Latin American Studies at Freie Universität on the topic of bodies and body politics in the female punk movement of Mexico City. Her main research topics are sexual violence, body and body politics, feminisms, social movements, and punk.

Prof. Dr Amy E. Wendt is a University of Wisconsin (UW) – Madison Professor of Electrical and Computer Engineering, and serves as an Associate Vice Chancellor for Research-Physical Sciences and Co-director of the Women in Science and Engineering Leadership Institute (WISELI) at UW. She is committed to removing barriers to diversity, equity, and inclusion through institutional policies and practices. She chaired a Campus Committee to advise implementation of UW hostile and intimidating behavior (HIB) policy in 2016, and subsequently participated on the design team and as a presenter/facilitator for a curriculum on HIB prevention and response developed for UW employees.

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Foreword

We all know that science is about asking deep questions and finding answers through appropriate methodologies and rigorous academic analysis:

> The women did what they were told to do. They didn't ask questions or take the task any further. I asked questions; I wanted to know why. They got used to me asking questions and being the only woman there.

These words by Katherine Johnson, famous black mathematician at NACA-NASA 1953–1986, illustrate the spirit of inquiry that drives research activity and leads to gaining deeper understanding of the phenomena that surround us. One could easily replace the word "women" with "men," or "African," or any other name expressing humankind, and the sentence is equally as meaningful. The spirit of inquiry is ubiquitous in humankind regardless of country of origin, race, sexual orientation or social condition.

It is an honor for me to write this foreword for co-editors Dr Clemens Striebing, Dr Jörg Muller, and Prof. Dr Martina Schraudner, as they are bravely dedicating many years of their lives as scientists to comprehending the nuances of the complex interrelations between factors at play in discrimination, and using their knowledge to promote diversity in academic environments. Why do I say that their research activity is brave? On the one hand, because this is one of the research fields in which "hard data" are not easy to collect, that is, often it is not even legal to ask factual gender-related data. On the other hand, because there are important "soft factors" at play, that is, education, personal and social circumstances, therefore making data difficult to interpret. Moreover, as the co-editors say in their theoretical starting points, "discrimination has become more subtle while still producing adverse effects for disadvantaged social groups." There is no capacity to act on discrimination and diversity if problematic situations are covered up or escape the attention of institutional leadership.

I met Dr Striebing through Dr Elizabeth Pollitzer, Founder and Director of Portia, Coordinator of the GenSET project (European Commission, Framework Programme 7) which established the Gender Summits (GS). I had been collaborating with Dr Pollitzer on gender actions in universities as part of my work as Director for Research and Innovation at the European University Association (EUA). Dr Striebing was one of the GS17 participants (October 3–4, 2019), where I presented for the first time the work of Science Europe on gender

in my third week as its Secretary General. Later, he invited me to moderate a session that was part of GS21 (April 14–16, 2021). We discussed with a panel of experts the challenges and requirements for the development of a standardized survey across Europe to capture gender-sensitive working conditions in research and innovation. Among other conclusions, the discussion clarified the limitations in developing appropriate and reliable benchmarks and highlighted the need to find new ways of including softer factors for policy development, in a way that would allow better comparisons.

Readers will find in this book a collection of rigorous scientific studies on sensitive issues that can lead to discrimination in the workplace in academia or be interpreted as discriminatory behavior. I can see how the outcomes of the discussion held in April 2021 were taken into account in the conduct of these studies: they have integrated into their analysis the "hard" and "soft" aspects in their surveys to produce a series of refined lessons for developing policies targeting discrimination in academia and promoting inclusion and diversity in healthy research environments.

There are many dimensions and intersections in diversity and discrimination issues in academia. Nowadays, many European universities and research organizations are reviewing their policies to include, in addition to gender issues, policies for broad social inclusiveness (ethnicity, disability, sexual orientation – LGBTIQA+ social background, etc.). Science Europe works toward an inclusive research culture (I will come back to this point at the end of the preface), yet our experience so far is mainly on gender.

Let me put this work in the context of my experience on gender equality in European universities and in research funding and performing organizations:

In broad terms, the figures tell us that there is a low percentage of female university leaders, that is, rectors and vice-rectors (18–30% according to EUA figures, 2021), compared with the apparent balanced ratio of female/male doctoral candidates throughout European countries (between 40% and 60% according to Eurostat, no field distinction). In order to promote the role of women in leadership positions in the academic sector and advocate gender equality in higher education and research, a group of women rectors, almost all former members of the EUA Board, created in 2015 the European Women Rectors Association (EWORA). Their regular workshops and conferences are an excellent example of how women leaders can support other women in academia.

For its part, Science Europe published in January 2017 its "Practical guide to improving equality in research organizations." The guide provided recommendations to research funding and performing organizations in order to: (i) minimize unconscious bias in peer-review processes for project selection and career promotion; (ii) monitor gender equality; and (iii) improve grant management practices from the gender perspective. These recommendations were extracted from policies and experiences of numerous Science Europe members who conscientiously analyzed their gender policies to propose common European guidelines. The recommendations and case studies in the guide fed several projects on gender-sensitive issues funded by the Framework Programmes of the European Commission, namely GENPORT (FP7), ACT (Horizon 2020)

and GENDERACTION (Horizon, 2020). Specifically, Science Europe has been a member of FORGEN, one of the "community of practices" set up in the framework of ACT.

These projects, as well as others funded by the European Commission have been instrumental in sparking and disseminating awareness of gender issues in universities, research centers and the entire academic sector across Europe. In this respect, Science Europe welcomed the initiative of the European Commission to meet the conditions in the Gender Equality Plan as an eligibility criterion for receiving funds from the Framework Programme. I see this as an achievement of many years of work in European Research Area (ERA) policies, in which gender has always been a priority addressed by the European Institutions and pan-European stakeholders such as EUA and Science Europe. I am convinced that this policy will contribute to eliminating gender inequalities, help raise awareness and address intersectoral socio-economic inequalities throughout research and innovation systems.

At global level, hallmark days such as the *International Day of Women and Girls in Science* and the *International Women's Day* are milestones in achieving recognition of the need to address the specificities of women in research and beyond worldwide. The Global Research Council (GRC) – a virtual organization, comprised of the heads of science and engineering funding agencies from around the world, dedicated to promoting the sharing of data and best practices for high-quality collaboration among funding agencies worldwide – published in 2016 its "Statement of Principles and Actions: Promoting the Equality and Status of Women in Research."

Science Europe is co-chairing the Working Group that the GRC set up in 2017 to contribute to the implementation of these principles. It supports the participation and promotion of women in the research workforce, and the integration of the gender dimension in research design and in the analysis of research outcomes. Regarding the monitoring of gender data, a report that the GRC Gender Working Group published in May 2021 indicated that while over 80% of the funding organizations worldwide collected gender-related data in project-funding applications, only a small number of funders collected data related to the other aspects of the grant management process (and these were mainly in Europe).

Discrimination in academia is detrimental first and foremost to researchers experiencing it, as it affects their mental health. It can also affect colleagues who notice the discrimination and may find themselves in awkward positions, having to choose between being silent witnesses or risk violent treatment themselves if they speak up. Beyond the emotional suffering, there are long term consequences for the careers of researchers, as the adverse conditions may affect their scientific performance.

An important area where universities and research funding and performing Organizations can have a strong impact in promoting equality, diversity, and inclusion (EDI) is through the processes that they use to assess and evaluate researchers and research. Between 2019 and 2020, Science Europe conducted an extensive study of the assessment processes of its members, in order to produce recommendations at institutional level. The study showed that bias,

discrimination, and the unfair treatment of researchers and research projects were central concerns for research organizations. The potential bias that was most often monitored was gender (by 82% of surveyed organizations). Ethnicity and disability were monitored by 31% and 25% of organizations respectively. Science Europe recommended collecting more data to take account of all possible types of bias and discrimination in assessment processes, and also to consider their interconnected nature. In addition, it recommended regular training and guidance on EDI to all research staff and reviewers involved in research assessment processes, as well as continuously evaluating assessment processes against all possible sources of bias. Furthermore, it promoted diversity in evaluation panels and expert reviewer pools that inform assessments.

I find this book to be in line with these recommendations, offering excellent in-depth analysis of the available data and going deeper into the soft aspects of discrimination and diversity to end with a series of nuanced recommendations to both institutional policy makers and research managers. Institutional policy makers strive for policies that can be properly implemented and that fulfill the objectives for which they were created. In this context, defining specific objectives and defining clear positive behaviors, expectations and consequences are essential. Research managers need all possible support and training from their institutional leadership to implement policies effectively.

The three recommendations for policy makers, two recommendations for research managers and the six lessons learned, are not just ready-to-implement advice: The "practitioner's guide" invites all of us to reflect upon our own perceptions on team processes, on how idealistic or realistic our perspectives on diversity and discrimination are, and on the limits between the institutional and other policies, for example, government policies.

The studies in this book merge hard and soft factors in their analysis on discrimination and diversity, including very sensitive aspects such as implicit or explicit violence toward an individual or a group of individuals due to being "different" from what is considered normal in a research unit, department or institution. While there can be cases of discrimination clearly related to a condition (sometimes intersectional), for example, black and poor women, LGTBI and disabled people, etc., I wonder if typical pressures related to research career progression such as the need to meet certain objectives as in the "publish or perish" dilemma, precarious career paths, and poor reward and incentive systems, should not be an additional factor worth adding in the intersectionality approach.

This brings me to my final point of this foreword: the need to reflect on the research culture(s) in academic environments to foster healthy academic environments

> that improve the conditions for researchers and research alike by further advancing European and global research systems towards a more sustainable, attractive, and effective research system. (Science Europe Position Statement on Research Culture – November 2021).
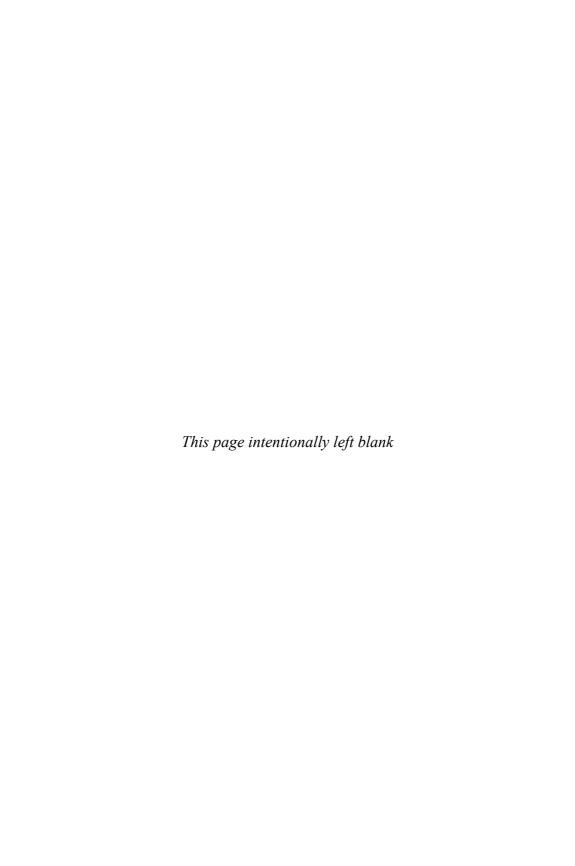
Furthermore, Science Europe strives for an ERA

> that focusses on the quality of the research process, full support of scientific autonomy, and the promotion of diversity and inclusion, acknowledging that these conditions will, in turn, foster a productive research system. We envisage a research culture in the European Research Area where a) all participants in the research endeavor are appropriately recognized for their diverse contributions, b) the broad skills and competencies of researchers are fostered and supported by suitable training, appropriate infrastructure, and responsible management and governance, c) research integrity and high ethical standards are promoted effectively, and d) careers in research are attractive and sustainable.

Through the series of studies and their authors' thorough analysis and thinking, this book goes beyond the state-of-the-art in making recommendations for policy makers and research managers, and sets the basis for the design of new group discrimination and diversity policies, creating a fine balance between too general measures, for example, one-size-fits-all policies, and too individualized case treatment. In this vein and in line with the vision above, Science Europe will take into account these recommendations and lessons learned in the action that is about to be initiated to assess the degree of implementation and usefulness of the 2017 Gender Guide and which will expand its remit to incorporate elements of EDI and intersectionality, based on good practice case studies.

I believe that this timely book will bring inspiration to many organizations that are in the process of reviewing and implementing diversity and discrimination policies, and that are moving from exclusive gender male-female policies to diversity policies, thus creating more open and welcoming research environments. While collecting data on individual researchers' racial, ethnic, sexual or religious identities can still be complicated depending on the legal framework and social tolerance, decision makers are in a position to take action by defining their vision for the research culture that they envision in their institutions.

Dr Lidia Borrell-Damián
Secretary General of Science Europe
Brussels, April 2022

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Acknowledgments

Reviewer List