Chapter 1

Diversity and Discrimination in Research Organizations: Theoretical Starting Points

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Abstract

This article outlines the theoretical foundations of the research contributions of this edited collection about "Diversity and Discrimination in Research Organizations." First, the sociological understanding of the basic concepts of diversity and discrimination is described and the current state of research is introduced. Second, national and organizational contextual conditions and risk factors that shape discrimination experiences and the management of diversity in research teams and organizations are presented. Third, the questions and research approaches of the individual contributions to this edited collection are presented.

Keywords: Gender; comparative research; bullying; harassment; implicit bias

Purpose of this Edited Collection

The era of team science has long since dawned (Wang and Barabási, 2021; Pavlidis et al., 2014). Diverse teams are considered to have the potential to work particularly efficiently. Creative thinking, diversity of perspectives and the ability to solve complex problems might be pronounced in diverse teams, which has not only been shown for multidisciplinary but also gender-diverse teams (Abdalla et al., 1999; Bear and Woolley, 2011; Østergaard et al., 2011). Such skills are key competencies for research organizations that want to be influential and internationally-recognized sites for cutting-edge research.

However, in order for the individual members of a team to work well, research organizations need to provide a productive and naturally non-discriminatory working environment. The fact that bringing together and integrating researchers and their diverse backgrounds in effective teams is precarious due to the structural conditions of the research system – that is, it does not happen on its own – will be further discussed here. To harness the positive effects of diversity, it must be managed proactively (Nielsen et al., 2018). In this context, the edited collection has the following purposes:

- to contribute rare quantitative analyses of the extent of discrimination according to diverse socio-demographic characteristics of individuals in research-performing organizations;
- to contribute analyses of the contextual organizational factors that affect the perception of discrimination within research-performing organizations, and
- to seek the connection to practice by highlighting options for action.

The publication explores discrimination in research organizations, by which we mean all forms of organizations whose main purpose is to conduct research. The focus is on public research organizations such as universities or non-university research institutions (represented in the edited collection primarily by the German Max Planck Society). Research departments of companies – which in our view operate more according to the rules of the private sector than academia – are not included.

In principle, discrimination can be discussed for all areas of society and is regularly relevant simply due to its strong significance for the working climate and the well-being of individuals and teams. The relevance of research-performing organizations as a research topic seems to be additionally given by the political efforts of advanced (trans-)national innovation systems to combat systemic discrimination and the major role that effective diversity management plays for successful cooperative creative processes. At a political level, as editors and researchers active in national and international projects we experience the European Commission as a particularly proactive actor. With its "Horizon Europe" funding programme for research and innovation, the EC also promotes research projects and practical measures to reduce discrimination and create an inclusive research culture in the research systems of its member states. In doing so, it strives to strengthen international mobility and the competitiveness of a common European research area as part of its mandate laid down in Article 179 of the EU Treaty.[1]

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[1] The text of Article 179 of the Treaty on the Functioning of the European Union (2012) paraphrased here is: "The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, […]."

Diversity and Discrimination: A Sociological Definition

Conceptual Understanding of Discrimination

Research on discrimination in the labor market and work organizations has lost none of its relevance. This continued interest by researchers and practitioners is partly due to the fact that discrimination has become more subtle while still producing adverse effects for disadvantaged social groups. Over the decades, theory as well as empirical research has moved away from understanding discrimination as deliberate and intentional acts of exclusion perpetuated by individuals toward more complex and elusive mechanisms including cognitive "implicit bias" (Quillian, 2006), "microaggressions" (Sue, 2010), unfair and biased organizational processes (Nelson et al., 2008), or the systemic nature of what Barbara Reskin (2012) has called "*über* discrimination."

Nonetheless, while discriminatory practices have become less overt (Sturm, 2001), their effects continue to be felt in a very direct and real way by individuals as well as organizations. Findings presented by Jones et al. (2016) in their meta-analysis show that subtle forms of discrimination are "at least *as* substantial, if not more substantial" (italics original) than overt forms regarding diminishing the physical and mental health of individuals, job satisfaction, or organizational commitment, to name just three of its effects. The resulting reduced well-being and self-esteem of staff has organizational-level consequences as employees' work attitudes decline, turnover intentions increase or job performance dwindles, affecting the overall effectiveness of firms (for a review, see Colella et al., 2012). Thus, while it has become more difficult to detect discrimination, its negative consequences are as direct and powerful as ever, calling for equally strategic and systemic counter-measures.

Discrimination has a long and substantive research pedigree in the social and behavioral sciences, with contributions spanning several disciplines including economics, sociology, psychology, management and law. Although the explanatory models for discrimination differ across these fields of knowledge, there is a certain agreement on its basic definition: discrimination involves the differential treatment of individuals based on functionally irrelevant status cues such as race or gender (Merton, 1972; Altonji and Blank, 1999).

Unpacking this definition first implies recognizing that discrimination is based on group membership and as such it never targets a person due to individual reasons. Discrimination happens because individuals are perceived as belonging to a social group delineated by gender, race or national origin, age, health conditions or disability, religion, and/or sexual orientation (Colella et al., 2012; Baumann et al., 2018). These categories often do not function as unified, mutually-exclusive entities, but rather they "intersect" and can thereby aggravate experiences of oppression and power (Collins, 2015).

Second, discrimination implies an "unjustified" differential treatment that occurs due to social group membership rather than actual differences in terms of task-relevant qualifications, contributions, or performance. Thus, job opportunities, promotions or rewards (e.g., wages) differ between women and men, even when comparing equally qualified and experienced persons. Consequently, discrimination is considered not only unfair but also illegal in many contexts.

Third, discrimination refers to behavior rather than solely beliefs and attitudes. Although the psychological literature predominately explains discrimination with references to prejudice and stereotypes, this is insufficient to constitute an act of discrimination (Fiske et al., 2009). For discrimination to occur, actions need to be carried out that exclude, disadvantage, harm, harass or deprive the members of a less favored group compared to the members of a more favor group. Although most research conceives discrimination as negative behavior against disadvantaged groups, it can also involve positive behavior, that is, giving advantages to already-privileged groups. In fact, as Nancy DiTomaso (2020, 2013) argues, for the perpetuation of social inequality, the

> positive actions taken on behalf of those who are already advantaged may be as consequential or more so than the negative actions that deny opportunity to those who are disadvantaged.

Conceptual Understanding of Diversity

Similar to research on discrimination, research on workplace diversity continues to be a burgeoning academic field. As Faria (2015) suggests, diversity research came into being in the US during the 1980s as a specific reaction against the previous social justice-based Equal Employment Opportunity (EEO) and Affirmative Action (AA) policies dealing with discrimination. Driven by an increasingly heterogeneous workforce and economic globalization, these justice-based policies were considered to be inefficient and costly, and replaced in favor of an emerging business case for diversity. Whereas discrimination involves a moral component in terms of the "unjustified" differential treatment (Altman, 2011), diversity relinquishes these moral and legal burdens, concentrating instead on a pragmatic strategy to increase the corporate bottom line (Litvin, 2006). Diversity research therefore attenuates regulatory approaches for ameliorating the negative effects of discrimination and instead emphasizes proactive measures to capitalize on heterogeneous resources available in different work settings. For diversity research, the focus on measurable profits implied the establishment of a matrix of quantification where certain clear-cut, easily observable demographic differences could be set in relation to equally quantifiable, dependent outcomes. Backed up by the predominant positivist research tradition in the US, demographic differences according to gender, age, race as well as functional differences such as educational background were thus operationalized and enshrined as measurable, stable markers of identity to be harnessed by Human Resource Departments and Management for improved profitability.

As a result, a major difference between discrimination and diversity approaches in workplace settings concerns the role reserved for markers of social identity such as age, gender, or race. While diversity scholars conceived these differences in terms of a-historical, personal attributes, discrimination scholars are mostly attentive to the ways in which these individual attributes delineate group-based membership, which in turn is tied to historically-grown positions of privilege and power (Prasad, Pringle, and Konrad, 2006).

Today, diversity research has increasingly overcome its initial and overly simplistic conceptions of fixed identity attributes, partly driven by the largely inconsistent findings of its initial research program, which failed to establish any clear-cut linear relationship between diversity attributes and economic benefits (Haas, 2010). While subsequent work has become more aware of the contextual nuances that moderate and mediate the effects of diversity (van Knippenberg and Schippers, 2007; Joshi and Roh, 2007, 2009), other approaches appear to have come full circle in terms of recognizing the importance of power and status processes for working groups (van Dijk and Van Engen 2013; Ravlin and Thomas 2005; DiTomaso et al., 2007). As van Dijk et al. (2017) rightly emphasize, diversity research needs to take into account that

> members of different social groups are likely to be perceived and approached differently because of their membership in a given social category […] and, in part as a consequence, may behave differently (p. 518).

Diversity and Discrimination — Common Ground

Thus, as these recent developments suggest, discrimination and diversity research are becoming more closely aligned. This is especially apparent from the combination of the underlying psychological models in work groups and their organizational context factors. As we argue, social categorization models need to be combined with status-/power-based approaches (e.g., AA and equal opportunities) to work group diversity, prevent discriminating behaviors and enable organizations to take full advantage of their diverse human resources. Studies of discrimination and diversity appear in this sense as two sides of the same coin, suggesting that measures leading to a reduction of discrimination not only reduce adverse effects at the individual level but also hold the potential to create more productive and effective work environments.

Approaches to Studying Discrimination and Diversity

Levels of Analysis

While research on diversity primarily operates at the level of teams and small- to medium-sized work groups (Roberson, 2019; van Knippenberg and Schippers, 2007), research on discrimination can target the micro-, meso- and macro-level of society or a combination of these levels of analysis. At the macro-level, the magnitude and persistence of discrimination has been well documented in relation to race and gender in employment, housing, credit markets, schooling and consumer markets (Pager and Shepherd, 2008). For example, concerning housing and credit markets, Pager and Shepherd (2008) summarize that "blacks and Hispanics face higher rejection rates and less favorable terms in securing mortgages than do whites" (p. 189). Although differential treatment varies across countries and even cities, discrimination remains pervasive and an important barrier to residential

opportunities. Gender-based discrimination in the labor market – to use a second macro-level example – is just as widespread and structural as race-based inequalities. The wage gap between women and men remains at an estimated 16 percent globally (International Labour Office, 2018). In the EU-28, women in Research & Development earn on average 17 percent less than their male colleagues (European Commission, 2019). Together with the horizontal segregation of women and men in certain labor market segments and vertical segregation restricting women from access to decision-making positions, these macro-level forms of discrimination constitute defining structural fault lines of contemporary labor markets.

While macro-level accounts usually produce evidence regarding the extent of structural disadvantages between social groups, meso- and micro-level accounts have advanced explanatory models of why discrimination occurs at all. The crucial influence of the organizational climate on discrimination constitutes a well-known example at the meso level. Thus, it has been shown that the organizational climate is the single-most important driving factor for sexual harassment to occur (National Academies of Sciences, Engineering, and Medicine, 2018; Willness, Steel, and Lee, 2007). On the other hand, micro-level accounts build upon psychology and social psychology to expose the individual-level dimensions of discrimination. Different psychological models exist concerning how prejudice and stereotypes are linked to discriminating actions, such as when implicit attitudes shape the behavior toward others defined by their social group identity (Greenwald and Krieger, 2006). The contributions of this edited collection in their entirety cover the macro-, meso- and micro-level.

Discrimination and Diversity through a National and Organizational Lens

While considerable advances have been achieved to untangle the hidden dynamics of discrimination in organizations, the collection of research articles presented here makes two specific contributions to the existing literature. First, they contribute research on aggregated and individual identity-related experiences of workplace misconduct at the research workplace. The contributions focus on different socio-demographic groups of people and consider research organizations that operate in different national contexts. The contributions reflect the influence of the systemic framework of academia.

Second, the relationship between diversity and discrimination in the context of the academic workplace is especially interesting in relation to one of the most decisive transformations of the academic environment over recent decades, namely the simultaneous intensification of work and diminishing resources/funding. The introduction of a new managerialism and regimes of accountability has obliged academics to do more with fewer resources and less time. As incipient research shows, the effects in terms of discrimination are particularly felt by minorities and those collectives that are already in more precarious and disadvantaged situations. Although research on the "neoliberal university" is abundant, there is a clear lack of more focused approaches to understand its implications for discrimination as well as diversity in work teams.

The contributions gathered in this edited collection are all situated in different national and organizational contexts, from the USA, France, Germany and Nigeria to Vietnam, and the conditions of academic workplaces in non-university and university contexts as well as public or private research organizations at different hierarchical levels and in different disciplines are examined. These national and organizational contextual conditions must be taken into account when considering the transferability of the results to other contexts, as explained below.

The Relevance of National Context

Discrimination is a persistent phenomenon throughout time, but levels of discrimination considerably differ across countries. As Quillian et al. (2019) show in their meta-analysis of job application field experiments, the strength of racial discrimination can considerably vary across the nine countries included in their study. White job applicants receive up to 65–100 percent more callbacks in France and Sweden than non-white minorities. Discrimination of job applications is weaker in Germany, the United States and Norway, where they receive on average 20–40 percent fewer callbacks. Similar findings are available from the large GEMM study carried out in several EU countries, particularly focusing on hiring discrimination based on ethnic background. Discrimination ratios were the highest in Britain – where ethnic minorities need to send out 54 percent more applications to achieve the same callback rate as the majority group – and the lowest in Germany, where minority applicants need to send out 15 percent more applications (Lancee, 2021; Di Stasio and Lancee, 2020). Examining religion, the study also finds that in the Netherlands, Norway and the UK, Muslims are "more than 10 percentage points less likely than majority members to receive a callback" (Di Stasio et al., 2021, p. 1316).

Comparative studies examining the effects of perceived discrimination equally attest to country-level differences concerning both gender and race. As Triana et al. (2019) show, differences in outcomes in terms of the psychological and physical health of gender discrimination at work can be linked back to differences in national labor policies and gender-egalitarian cultural practices between countries. To the degree that institutional frameworks such as labor market policies, legal regulations or cultural norms differ between countries, levels of discrimination will vary accordingly. Along the same lines, Quillian et al. (2019) see the comparatively high levels of hiring discrimination in France and Sweden as resulting from unconstrained employers' discretion that is neither monitored nor held in check by discrimination lawsuits such as in the US.

The role of national context factors for diversity are equally not fully understood. Although Joshi and Roh (2007) highlight national culture as one "distal omnibus" element affecting diversity outcomes, results are not particularly abundant. Early insights suggest that important dimensions of teamwork such as hierarchical versus more horizontal peer-based control structures vary across cultures and can invert the outcomes of diversity. Thus, van der Vegt, Van de Vliert, and Huang (2005) show that in cultures where power is more centralized, tenure and functional diversity are negatively associated with innovative climates, whereas

in low power distance cultures diversity is positively associated with innovative climates.

As the GLOBE study across 62 societies has amply documented, cultural differences not only exist in terms of "power distance" but also regarding other important features affecting diversity climate in work groups such as risk avoidance, performance orientation, gender egalitarianism, or levels of collectivist versus more individualized values (House et al., 2004). For certain areas of diversity research such as the under-representation of women on corporate boards, cultural differences in terms of gender egalitarianism and/or traditional gender roles have been shown to play a decisive role (Lewellyn and Muller-Kahle, 2020). However, since the primary interest of diversity research lies at the work group level, explorations of macro-scale patterns that are so common for discrimination research are rare. Instead, national differences are frequently operationalized in terms of the diversity of cultural values that individual team members bring to the work group (Bodla et al., 2018).

An important additional perspective for understanding the national context of discrimination concerns a situational perspective. Apart from institutional differences in terms of labor market legislation between countries, discrimination has also been linked to historical legacies of oppression such as slavery. Apart from historical legacies, situational accounts frequently also explain discrimination with reference to current economic and demographic conditions or political events (Quillian and Midtbøen, 2021). Right-wing politics stigmatizing certain ethnic or religious groups – for example in relation to terrorist attacks – can fuel discrimination. In situations of crisis such as the recent Covid-19 outbreak, discrimination can be aggravated. As reported by Pew Research Center (2020), 40 percent of black and Asian Americans indicate an increase in discriminating behavior toward them by others since the start of the pandemic. The Covid-19 pandemic has also clearly shown that under conditions of stress or crisis, minorities and marginalized groups will be even further disadvantaged compared to majority social groups (Kantamneni, 2020). However, while the effects of a public health crisis on discrimination have been extensively explored, this is not necessarily true for the effects of economic crises or recessions. Among the few studies directly examining the link between worsening economic conditions and discrimination, Kingston, McGinnity, and O'Connell (2015) show that non-Irish nationals experienced higher rates of work-based discrimination during the recession in 2010 compared to time of economic growth in 2004. Implicitly, there seems to be an understanding that "under conditions of threat (e.g., recessions, downsizing)" or insecurity, organizations and individuals fall back into "a limited set of well-learned and habituated behavioral scripts" (Gelfand et al., 2005, p. 93) to the disadvantage of already-marginalized and excluded social groups.

Overall, it remains unclear how these wider economic situational factors play out in terms of discrimination experiences and possibilities of fostering diverse teams. This holds especially in relation to the transformation of academic life in general. Driven by wider transformations and restructuring of the post-war European welfare states, academic work has experienced dramatic shifts over recent decades. Scientific autonomy has increasingly been replaced with an orientation toward performance measures, a focus on excellence and competition,

entrepreneurship, or the emphasis on cost efficiency (Herschberg and Benschop, 2019). How these recent developments play out in terms of discrimination experiences within academic organizations remains to be more fully understood. The work conducted here at the meso and micro level provides promising avenues for discrimination research. As we will argue in the next section, organizational culture and climate are not only influenced by wider national settings but they also modulate and refract some of these broader national trends with important implications for reducing discrimination and fostering team effectiveness. As the organizational level is the primary work environment in which people interact, it is one of the most important arenas to control and diminish discrimination.

The Relevance of the Organization

Organizational factors play an important role for discrimination rates and experiences in work settings. Organizational policies have also been identified as a crucial element for taking advantage of diversity. Formal and informal structures, organizational culture and climate, leadership or human resources, or workplace composition may all contribute to or attenuate discrimination (Gelfand et al., 2005). For example, transparent and formal evaluation criteria at the organizational level – for promotion or recruitment – can reduce discrimination as decision-making is accountable to objective criteria. Similar, holding managers socially accountable for performance ratings is one of three promising and effective strategies in terms of increasing workforce diversity and diminishing discrimination in companies (Dobbin and Kalev, 2016). In addition to encouraging social accountability, two further factors mentioned by Dobbin and Kalev (2016) to reduce discrimination effectively concern the engagement of managers in solving problems and the increase of contact among people from different groups. Both factors can be decisively steered through organizational policies.

Organizational climate – to mention another important organization-level factor – is a key driver of harassment (Pryor, Giedd, and Williams, 1995). Incidents of sexual and other harassment are more likely to occur in working environments where harassment is "tolerated" by a leadership that fails to act on complaints, does not sanction perpetrators or protect complainants from retaliation (National Academies of Sciences, Engineering, and Medicine 2018). This is especially true in settings where men are overrepresented among staff and at the leadership level. For example, a recent study on sexual harassment of undergraduate female physicists in the US – with women being under-represented in physics – revealed that three-quarters of respondents had experienced at least one type of sexual harassment (Aycock et al., 2019). Organizational-level factors such as the overall gender ratios or the wider work climate are therefore considered key elements that can inhibit or encourage discrimination.

Examining organizational context factors of discrimination more broadly, most evidence from the US is largely based upon plaintiff accounts of discrimination lawsuits. Thus, Hirsh and colleagues (Hirsh, 2014; Hirsh and Kornrich, 2008) show – for example – how several factors such as the previous vulnerable economic or social status, the workplace culture and the workplace composition

affect the perception of discrimination by employees. Similar, Bobbitt-Zeher (2011) exposes how organizational practices and policies combine with workplace composition and gender stereotyping to produce workplace gender discrimination in quite predictable ways. As mentioned, gendered norms of behavior, dress code, or sexualized talk in often male-dominated management and leadership positions create an organizational culture in which discrimination can flourish.

Among the few studies to explore the organizational context via an extensive survey is Stainback, Ratliff, and Roscigno (2011) whose study is based upon a sample of 2,555 respondents to the US National Study of the Changing Workforce in 2002. Corroborating the insights of Hirsh (2014), and Bobbitt-Zeher (2011), the results show that the experience of discrimination is reduced for both genders when they are part of the numerical majority in their organization and where a supportive workplace culture is in place. In their survey among 176 employees in the United States, Kartolo and Kwantes (2019) show that behavioral norms related to organizational culture modulates perceived discrimination.

While the majority of research on discrimination operates with a concept of behavior that disadvantages or harms people, diversity research foregrounds measures that foster a climate for inclusion to take full advantage of diverse assets within work groups. Indeed, promoting an organizational climate for inclusion is not only beneficial at the individual level (e.g., higher job satisfaction, better physical and psychological health) but also improves group-level outcomes such as overall team or organizational performance. As Brooke and Tyler (2011) succinctly state,

> […] by creating an environment in which all employees know they are valued and feel safe from discrimination, every employee can feel comfortable as a valued member of the organization (pp. 745–746).

Along these lines, research from Google regarding the perfect team has underlined previous insights from small group research on the importance of psychological safety for diverse teams (Duhigg, 2016; Edmondson and Lei, 2014). Risk-taking and making errors – elements that are crucial for innovation – are only possible to the degree that employees feel safe in their team and the wider work environment. Thus, Reinwald, Huettermann, and Bruch (2019) argue – based on a sample of 82 German companies – that diversity climate has positive effects for firm performance, especially where there is a relatively high convergence among employees in their climate perceptions. Similar findings are available from research on military working groups, showing that diversity climate is consistently and positively related to work group performance and that this relationship is mediated by discrimination (Boehm et al., 2014). Already in earlier work, Nishii (2012) has argued for the benefits of a "climate for inclusion" that reduces interpersonal bias and diversity conflict (see also Richard, 2000).

While research has established the importance of organizational climate and culture for discrimination and diversity, it is somewhat surprising that one of the

major transformations over the recent decades within academic organizations has received relatively scant attention. None of the aforementioned studies thus far takes into account how academic organizations at large are affected by or confronted with decreasing public funding while having to grope with a heightened sense of accountability. The introduction of New Public Management principles aiming to reduce and streamline a supposedly oversized and inefficient public sector has certainly affected public universities and research institutions over recent decades (Hood, 1991; Newman, 2005). A new managerialism tied to the introduction of Total Quality Management principles (Aspinwall and Owlia, 1997) – for example – as well as a marketization of the public sector have undermined the autonomy and independence of the academy and provoked considerable resistance among scholars. However, although the discriminatory effects of the so-called neoliberal working conditions in academic contexts is a burgeoning field of research (Pereira, 2016; Berg, Huijbens, and Larsen, 2016; Heath and Burdon, 2013; Craig, Amernic, and Tourish, 2014), there is clearly a dearth of studies addressing how the wider organizational culture associated with competitiveness, performance demands, or audit culture affects the perception of discrimination. As some studies suggest, especially vulnerable minorities are likely to be disproportionately affected by these more demanding, neoliberal work environments (Anderson, Gatwiri, and Townsend-Cross, 2019; Cech and Rothwell, 2020).

Risk Factors of Discrimination in Research Organizations

From the perspective of a researcher in the European Union, it should be noted that there is hardly any other sector in which such highly-qualified personnel work under comparably insecure working conditions as in academia. As editors of this collection, we do not believe that scientific and non-scientific employees in research organizations experience discrimination or workplace misconduct more frequently than in other sectors (for a discussion for sector differences in bullying, see Keashly, 2021). However, depending on the contextual conditions of the academic sector, very specific patterns of structural discrimination emerge.

From a governance perspective, discrimination can take place especially in situations where *effective* structures are lacking that may constrain decision-makers to minimize the influence of bias on their decisions (Williams, 2017). This refers to accountability structures as well as checks and balances in decision-making processes and procedures that aim to reduce or dissolve one-sided dependencies between the individual actors in the research system (e.g., staff councils, PhD schools, supervisory committees, equal opportunities officers, representatives for the severely disabled, transparent and binding promotion criteria, etc.). Where such structures are lacking, a high degree of variance in working cultures and leadership styles in the individual teams is possible, with both positive and negative consequences.

The Equal Employment Opportunity Commission (EEOC) – a US federal agency tasked with ensuring the implementation of the applicable

anti-discrimination legislation in the labor market – has formulated concrete organizational risk factors for workplace harassment, which can also be applied to research organizations and academia (Feldblum and Lipnic, 2016). With their understanding of the term harassment, the authors focus on intentional forms of discrimination, as opposed to unreflective discrimination due to cognitive bias or institutionalized structures (such as not counting care periods in the evaluation of performance). In our view, the risk factors named in Table 1 and explained by indicators and anecdotal examples from academia can also be largely applied to systemic discrimination. Table 1 can thus be understood as the summary of the above elaborations on the importance of national and organizational contextual factors.

The anecdotal examples in Table 1 convey the notion that it seems inappropriate to place academia under the general suspicion that experiences of discrimination and discriminatory behavior as well as the negation of diversity are more widespread here than in other workplaces. The heterogeneity of the workforce and the prevailing workforce norms vary between different national, regional, and disciplinary contexts. Furthermore, a vertical and horizontal gender segregation as well as a status- and organization-politically elevated position of leadership personnel are not peculiarities of research organizations. However, discrimination processes in academia *can* be framed in particular by the following distinct characteristics of the research and higher education system:

- the "customer service" provided by scientific staff – that is, teaching students – can certainly be considered an important additional stress factor, which is only present in comparable form in other teaching professions;
- the important role of international mobility for scientific career development, which is explicitly promoted by national and supranational organizations such as the EU and structurally reflected in cultural and linguistic differences in the workforce;
- the shared governance principle of academia (Keashly, 2021), within which the faculty makes the crucial decisions on research strategy and personnel policy. Other staff have a subordinate role. Within shared governance, other university groups are often represented alongside the faculty, and decision-making power is distributed pyramid-like according to seniority: while all of the voices of the few chair holders as "high-value employees" are often heard, early career researchers, non-tenured researchers, administrative staff and the many students are often not represented or they are only represented by a few representatives.

The principle of senior shared governance or "peer principle" is based on a collegial appreciation of the peer's respective sphere of influence on constructiveness and cooperativeness. For academic leadership staff, shared governance is essentially a peer evaluation system in which each participant is just as powerful as any other. In cases of conflict, this system of mutual tolerance can reach its limits (Keashly, 2021); for example, when the prevailing structures in the

Table 1. Chart of Risk Factors for Harassment and Responsive Strategies (for an extended version, see US Equal Employment Opportunity Commission, 2021).

Risk Factor	Risk Factor Indicia	Anecdotical Examples from Academia
Homogenous workforce	Historic lack of diversity in the workplace. Currently only one minority in a work group (e.g., team, department, location)	UK: Brown and Leigh (2018), point out that the proportion of university staff declaring health conditions or impairments with around four percentage is three times lower than for undergraduate students. Germany: The proportion of foreigners among academic staff at German universities can be estimated at 12.7 percent (Destatis, 2020). EU: The field of study education has the highest proportion of women among doctoral graduates at 67 percent. The lowest proportion of women (22 percent) is in information and communication technologies (European Commission, 2021)
Workplaces where some employees do not conform to workplace norms	"Rough and tumble" or single-sex-dominated workplace cultures. Remarks, jokes, or banter that are crude, "raunchy," or demeaning	In Nature's 2021 salary and job satisfaction survey, 32 percent of respondents said they had witnessed discrimination against or harassment of colleagues in their current job. [...] Twenty-seven percent of respondents said they had personally experienced discrimination, bullying or harassment in their present position (Woolston, 2021)
Cultural and language differences in the workplace	Arrival of new employees with different cultures or nationalities. Segregation of employees with different cultures or nationalities	In the European Union there is the European Charter for Researchers as well as the article 179 in the European treaty itself where mobility for researchers is promoted and established as a desirable goal. Internationality, thus, is a political target of European academia. In general, there is also a difference between academic cultures in America, Europe and Asia. The European approach is about excellence and tradition, research oriented, and multiple languages are typical. Asia is more utilitarian and international, supporting innovation research to promote entrepreneurial thinking, creativity, and global adaptability. In America academia is characterized by democratic and inclusive values with contestation, embeddedness and diversity as constituting elements. Therefore, diversity exists not only by personal cultural diversity and differences but also at an academic level (Boyle, 2022)

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Table 1. (*Continued*)

Risk Factor	Risk Factor Indicia	Anecdotal Examples from Academia
Coarsened social discourse outside the workplace	Increasingly heated discussion of current events occurring outside the workplace	"Social protest movements such as #MeToo and #BlackInSTEM have shone a light on the need for greater diversity, equity and inclusion at scientific institutions worldwide [...]" (Woolston, 2021). In Nature's international survey, 40 percent of the scientists felt that employers undertook sufficient measures for a diverse workplace (Woolston, 2021)
Young workforces	Significant number of teenage and young adult employees	UK: While the most Professors are aged around 51–55 years, the largest group of academics is in the age bracket from 31 to 35. That is a solid 20-year gap just between the most common ages (HESA, 2014)
Workplaces with "high value" employees	Executives or senior managers Employees with high value (actual or perceived) to the employer, for example, the "rainmaking" partner or the prized, grant-winning researcher	Germany: A professorial employment usually goes in hand with a lifelong calling (except for some states where the first calling is limited or has a try out phase) while scientific employees only have excess to limited time contracts. These are furthermore limited to six years because of the "Wissenschaftszeitvertragsgesetz." Due to this law, there is a steady fluctuation in the workforce, while the people in charge – the professors – remain in their positions (Bundesministerium der Justiz, 2020)
Workplaces with significant power disparities	Low-ranking employees in organizational hierarchy Employees holding positions usually subject to the direction of others, for example, administrative support staff, nurses, janitors, etc. Gendered power disparities (e.g., most of the low-ranking employees are female)	The staff at most research institutions are differentiated into scientific and non-scientific employees, who in turn have different hierarchical levels with specific status characteristics. A typical differentiation of the scientific career is into the regularly temporary PhD students and postdocs as well as into permanent scientists and chair holders. The non-scientific career is more oriented toward an authority structure; for example, into tariff employees without management responsibilities, unit or team leaders, department heads, and presidential offices

Workplaces that rely on customer service or client satisfaction	Compensation directly tied to customer satisfaction or client service	Teaching courses and related duties (taking exams, supervising academic papers, mentoring) are usually firmly linked to academic careers, and in many countries they are a prerequisite for tenure or the professor. In this sense, academic employees are regularly exposed to a classroom situation in which they depend on student acceptance and cooperation
Workplaces where work is monotonous or tasks are low-intensity	Employees are not actively engaged or "have time on their hands"; Repetitive work	As in every workplace, there are also monotonous activities in science, for example, address research, text formatting or repetitive laboratory work. In a survey of employees at the German Max Planck Society, one in two respondents stated that they had occasionally or frequently been instructed to perform work below their own competence level (Schraudner et al., 2019)
Isolated workplaces	Physically isolated workplaces; Employees work alone or have few opportunities to interact with others	Depending on the scientific discipline, teamwork has a different status. For example, while life scientists regularly work in teams, law and humanities scholars tend to be lone wolves. Canada: The Ryerson University informs on their homepage section "Facilities Management and Development" extensively about existing rules and dangers of working alone or in isolation. A lot of these rules are posed by the Ontario Law, but also by the Environmental Health & Safety Department of the university. Therefore, it seems fairly common that staff has to work isolated or alone. (Ryerson University)

(Continued)

Table 1.   (Continued)

Risk Factor	Risk Factor Indicia	Anecdotical Examples from Academia
Workplaces that tolerate or encourage alcohol consumption	Alcohol consumption during and around work hours	NL: The University of Amsterdam introduced a change in policy regarding drinking at the workplace or at events with this: "Having a glass of wine or a beer at a work reception or university event is regarded by many as the most natural thing in the world — but we would like to see the UvA break that mold. Our new alcohol policy will focus on fostering a new social standard in which alcohol consumption is not automatically the norm" (Wiers, 2021) UK: Cross sectional study among university staff: "Over one third (35%) of respondents were classified as hazardous drinkers. Twenty three percent reported having blackouts after drinking and 14% had injuries or had injured someone. The odds of being a hazardous drinker for an employee in central departments (Human Resources, Registry etc.) is only one third of that of an employee in science and health-related departments [...]. The proportion of hazardous drinkers was higher in males compared to females (43% and 30% respectively)" (Awoliyi et al., 2014)
Decentralized workplaces	Corporate offices far removed physically and/or organizationally from front-line employees or first-line supervisors	Germany: Germany's largest non-university research organizations – like Fraunhofer Gesellschaft, the Max Planck Society, Leibniz Gemeinschaft and Helmholtz Gemeinschaft – are constituted as associations of institutes with a coordinating umbrella organization. The Fraunhofer Gesellschaft has over 75 institutes, and the MPS 86 institutes, of which five are even abroad. The Leibniz Gemeinschaft has 96 institutes distributed across Germany and the Helmholtz Gemeinschaft eighteen

academic workplace are questioned, or when a colleague should be confronted due to a biased decision or their misconduct toward groups of people who are not involved in senior shared governance.

In order to make HR processes more professional and rational, the professionalized and clearly more sovereign university administrations in relation to the faculty (Gerber, 2014) today have a variety of different tools at their disposal. As van den Brink and Benschop (2012) argue, these tools like promotion guidelines, gender equality plans, trainings, or participatory decision-making too rarely aim at structural change and take little account of disciplinary specificities (e.g., the pool of female talent strongly differs between computer science and medicine). In particular, the authors highlight that practices aimed at reducing discrimination are closely intertwined with the contextual conditions that gave rise to the discrimination to be combated in the first place. For example, the gender equality officer's say and the rules set for the appointment of a new chair are sometimes undermined by the preferences and informal power resources of the academic management, whereby ultimately the candidate who had been preferred by the institute's management from the beginning prevails in most cases. Accountability structures for strengthening diversity usually lack the binding force and sanctioning power to have an immediate effect (ibidem).

At the European level, we observe a growing awareness of the lack of effectiveness of the current gender equality policies and measures in academia, accompanied by the will to strengthen its effectiveness. A particular expression of this attitude is that since 2021 gender equality plans have been declared a mandatory requirement to apply for project funding within the framework of the most important European research framework program, "Horizon European" (European Commission, 2020). Furthermore, within the framework of its Gender Equality Strategy 2020–2025, the European Commission attaches importance to an intersectional approach in which discrimination is not restricted to gender but is thought of comprehensively.

Overview of Chapters

The peer principle as an element of research governance essentially ensures the scientific quality of research. Who else should evaluate the excellence of a research project, research design and researcher, if not their peers? However, as explained above, the peer principle does not guarantee modern and bias-free personnel management as required by a number of state equal opportunity acts.

It is research policy and administrative as well as scientific research managers who are decisively entrusted with the standardization and quality assurance of personnel management in the research system and who thus make an essential contribution to ensuring optimal working conditions for academic mid-level and non-scientific staff as well as equal opportunities when filling professorships. With the studies collected in this anthology, we hope to contribute to the informed action of these central actors in research policy to enable researchers and research teams to operate in optimal conditions. The articles can be roughly divided into two categories according to the guiding questions of this edited collection: macro

studies surveying the extent of discrimination and harassment in research organizations and micro studies exploring the influence of the specific cultural contextual conditions of the academic workplace on experiences of discrimination and harassment related to the diversity of the workforce.

About the Extent of Discrimination in Research Organizations

Striebing's "Max Planck studies" belong to the first category of macro analyses. These are three contributions that resulted from a research project commissioned and funded by the Max Planck Society in Germany on the work culture in its institutes and facilities and in particular on the experiences of bullying and sexual discrimination. The project was carried out in 2018 and 2019 and included a series of qualitative interviews and a full survey of the more than 23,600 scientific and non-scientific employees of the Max Planck Society, which is one of the world's largest and most comprehensive institutions for basic research.

In his first contribution, Striebing explains how the evaluation of the group climate and the leader varies according to the socio-demographic characteristics gender, nationality and responsibility for childcare of the Max Planck researchers. He examines the intersectionality, in terms of interaction effects, of these characteristics, and also considers the context of the respondents' hierarchical position. Striebing proceeds in a similar way in his second contribution. In addition to the researchers, the non-scientific employees of the Max Planck Society are also examined. The question is pursued concerning how the socio-demographic characteristics of the employees as well as the contextual conditions of hierarchical position, scientific discipline and administrative area affect the extent of bullying experiences. In the third contribution, Striebing examines whether men and women in the academic workplace have a different understanding of bullying and sexual harassment and discrimination. The contribution explores patterns of gender-related differences in the self-reporting of acts of workplace misconduct and self-labeling as having been bullied or experienced sexual discrimination and/or harassment.

Pantelmann and Wälty offer a comprehensive insight into the prevalence of sexual harassment among students. They present data from a survey conducted at a German university and critically reflect the role of the university and the work culture in academia in preventing and managing experiences of sexual harassment on campus. The results presented by the authors come from the "Perspectives and Discourses on Sexual Harassment in International Higher Education Contexts" project in which eight research teams from very different international higher education contexts cooperated.

Sheridan, Dimond, Klumpyan, Daniels, Bernard-Donals, Kutz, and Wendt also conducted a so-called campus study, examining the prevalence of hostile and intimidating behavior at the University of Wisconsin-Madison in the US and its variance by gender among persons of color, LGBTQ persons and persons with disability at two different measurement points. More importantly, in their article the authors describe the policy package enacted by the university for prevention and conflict resolution and discuss its effectiveness using their longitudinal data

as well as survey data from training interventions. The authors thus present a very rare evaluation study in the context of discrimination, which is highly relevant for theory and practice alike.

Nguyen, Tran, and Tran contribute a systemic macro analysis of a lower-investment research and innovation system and a different culture. They analyze data from 756 researchers in the Vietnam Academy of Social Sciences, examining differences in the scientific achievements of male and female researchers and investigating the factors influencing them.

Cultural Context Conditions of Academia for Diversity and Discrimination

The discourse in research organizations has a particular influence on how diverse teams and cases of discrimination are dealt with, that is, what is said, how it is said and what can be said. This discourse is the result of the respective organizational and team culture and it decisively determines which experiences are perceived and recognized as discrimination in the organization.

In an experimental survey study, Kmec, O'Connor, and Hoffman presented a representative sample of the US population with a vignette describing an incident of sexual harassment between a department director and one of his team members, asking respondents to rate whether it was inappropriate behavior, sexual harassment, or neither. The authors are interested in the question of whether the respondents' value orientations – in terms of gender essentialism, gender egalitarianism and their belief in meritocracy – significantly influence sensitivity to the perception of sexual harassment.

Of the papers in this edited collection, Vandevelde-Rougale and Guerrero Morales most directly address the implications of the extension of managerialism and New Public Management to discrimination in research organizations. The authors examine managerial discourse, by which they mean a utilitarian, cost-benefit-oriented way of interpreting and organizing the affairs and processes of research teams. Through multiple case studies from Ireland and Chile, they explore what the focus on the pragmatic exploitation of diversity brings to bear on individuals who experience workplace bullying and discrimination, as well as what the managerial approach to conflict solutions can contribute to ensuring a safe and discrimination-free work culture.

The third discourse-related study in this edited collection is provided by Steuer-Dankert, who deals with diversity belief in a complex research organization. Diversity belief is understood as a working group's belief in its own diversity and the positive benefits of diversity. Steuer-Dankert not only contributes the most comprehensive reflection on diversity management in research organizations among the contributions of this collection, but she also provides answers to another interesting aspect. Previous studies often examine diversity and discrimination in teams under the assumption of a relative constancy of team structures and members, but in a modern innovation system research often takes place in project-wise institutionalized and theme-oriented network structures such as the German Cluster of Excellence examined by Steuer-Dankert. The temporary

network forms a further governance level horizontal to the classic university organization and features independent team interactions and ultimately also a specific organizational culture.

While the aforementioned studies describe individual specific aspects of the organizational culture of research organizations, Gewinner reconstructs the experiences of discrimination of a specific group of people based on biographical interviews. Using Russian-speaking female scholars in Germany, she develops a comprehensive and intersectional theory on the vulnerability of foreign researchers to experiences of discrimination and workplace misconduct.

Since a major aim of this edited collection is not only to understand and describe discrimination in research organizations but also to make a small contribution to reducing discrimination, we conclude by formulating a number of implications for practice. In the concluding chapter, we set out several basic features and requirements for an effective system for preventing and managing discrimination in research organizations and summarize what we consider to be the main lessons learned from this edited collection in a simple catalogue of options for action.

About Our Intersectional Approach

The intersectionality approach assumes that an individual belongs to "multiple categories of difference" defined by socially-constructed categories such as gender, age, or ethnicity that result in a specific set of opportunities and oppressions for each individual stemming from their "blended social identity" (Dennissen et al., 2020; Silva, 2020; Ghavami et al., 2016; Crenshaw, 1991). These intersections of identity and discrimination result in individual experiences of discrimination based on different group memberships. Accordingly, the concrete discrimination experiences of black women – for example – differ from those of black men and white women. An intersectional approach considers the addition of experiences of discrimination, but furthermore also considers interaction effects (Bowleg, 2008). As a result of the intersectional analysis, it may emerge – for example – that black women experience discrimination less frequently than black men or white women, although they experience discrimination due to their status as women and black people. The task of intersectional research is to identify the structural and situational dynamics of discrimination processes and their specific contextual conditions.

The contributions of the edited collection and their framing explicitly follow an intersectional approach. This means that the single contributions not only discuss differences between persons of different genders but also pursue taking into account intersections between identity categories (and the different systems of oppressions represented by them) in the analysis. We apply a broad understanding of intersectionality. Which categorizations are ultimately taken up in the contributions to the edited collection was open and depended on the authors' research foci and available data. In principle, it is possible to analyze the manifold interactions of gender with racial or ethnic origin, religion or belief, disability, sexual orientation and other categorizations, which can form the starting point for systemic discrimination.

Nevertheless, an intersectional analysis in the strict sense was not always possible. Especially in quantitative studies, large numbers of cases are necessary to make statements with high statistical power and thus not only identify very strong statistical effects. In cases with low statistical power, it was not the interactions of, for example, gender and age that were analyzed, but rather the simple effects of gender and age. In addition, several authors of the edited collection adopt an intersectional perspective when discussing the generalizability of their results. For example, Kmec et al. (in this collection) discuss whether a connection between merit thinking and sexual discrimination could also be proven if the discrimination was not positioned in a heterosexual setting between an old white supervisor and a young white female researcher.

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