Center for Responsible Research and Innovation

Fraunhofer IAO

“WORK CULTURE AND WORK ATMOSPHERE IN THE MAX PLANCK SOCIETY”

Report of findings

Authors: Prof. Martina Schraudner,
Dr. Clemens Striebing,
Katharina Hochfeld

We hereby explicitly specify that this study does not support any conclusions about the prevalence of bullying and sexual discrimination in terms of legal offenses (such as the violation of people's fundamental personal rights). It should likewise be noted that in keeping with international scientific standards, the behavioral items used in the survey cover a large number of very different types of conduct. Nonetheless, especially in the case of work-related behavior, cultural and organizational context play a role in whether particular types of behavior are understood as examples of bullying. We recommend that respondents' **self-ascribed experiences of bullying and/or sexual harassment/discrimination** (the latter of which was not treated as a separate category in this survey) be used as point of reference, as they reflect **respondents' everyday understanding of the terms** and their **personal sense of having suffered wrong**.

Editorial notes

Contact partner:

Prof. Martina Schraudner
Head of Fraunhofer CeRRI

Fraunhofer Institute for Industrial Engineering
Hardenbergstraße 20
10623 Berlin
Germany

Tel.: +49 (0)30 – 68 07 969 – 0
Fax: +49 (0)30 – 68 07 969 – 10
Martina.Schraudner@iao.fraunhofer.de
https://www.cerri.iao.fraunhofer.de/

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Germany

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Executive summary

This report of findings is based on an online survey of all employees of the Max Planck Society and on forty detailed interviews with randomly selected employees from all hierarchy levels and with individuals affected by bullying and sexual discrimination, as commissioned by the president of the organization and accordingly carried out by Fraunhofer IAO in February/March 2019. In addition to the results of the survey and the interviews, the report of findings contains recommendations that address both the particular challenges of an organization engaged in cutting-edge research and the specific problems of the Max Planck Society identified here. The report of findings is structured around these recommended actions.

The main results

A majority of respondents evaluated the **atmosphere in the individual groups** of the Max Planck Society positively. In particular, the shared vision and the participative safety within their group were praised by a large majority of employees. The **leadership culture** of their immediate superior is also perceived as good or very good by a large majority of employees. Scientific superiors are judged to be change-oriented, while non-scientific superiors are judged to be rules-oriented. On average, every second scientist or researcher affirms that his/her superior supports his/her **career development**. Three-fifths of employees indicated that they had had a personal conversation with their superior about career development over the past year. A majority of employees rate their **affinity with their institute or facility** in the Max Planck Society (commitment to organization) as high.

Scientists and researchers evaluated their **work-life balance** as problematic more often than non-scientific staff did. Every second scientist or researcher indicated that work interferes with their personal life at least once a month. A third of scientists and researchers with children who had taken at least one month of parental leave said that they had taken less parental leave than they actually would have wanted due to professional reasons relating to their work at the Max Planck Society. Two out of five scientists and researchers with children stated that they had experienced professional disadvantages on account of having children.

Around one in every ten employees of the Max Planck Society was affected by **bullying** in the year before the survey. For workplaces in European countries, the benchmark is 9.3%. The prevalence of bullying in the Max Planck Society is therefore average. Work-related misconduct (such as withholding information, assigning tasks beneath an employee's level of expertise, or ignoring their opinion) is particularly prevalent. In this regard, non-scientific employees are more affected than scientists and researchers, and women are more affected than men. Scientists and researchers with non-German citizenship experience more misconduct in the workplace than German ones. Fundamentally, however, bullying affects all employee groups in the Max Planck Society, from apprentices to management.

3.9% of all respondents indicated that they had experienced **sexual harassment or discrimination** at least occasionally in the year prior to the survey. The benchmark for sexual harassment at U.S. academic workplaces is 16%. In comparison, the prevalence of sexual harassment and discrimination at the Max Planck Society is below average. In this regard, women are more affected than men, young employees more affected than older ones and female scientists and researchers more affected than female non-scientific employees. The further analyses show that 16.3% of employees occasionally experience sexist behavior and 1.9% of employees experience stronger and in some cases repeated forms of sexual discrimination. The groups of employee most affected include (non-German) junior scientists and researchers and non-scientific employees in the "Other Services" category (i.e. not "Administration" and not "Technology and IT".

Only a minority of incidents of bullying and sexual discrimination are reported to the corresponding **points of contact in case of conflict**. In the other cases, half of those affected do not believe in the effectiveness of the conflict resolution mechanisms. The majority of those who reported occurrences of bullying turned to their superiors within the organization: Half of those affected who reported the issue to a designated point of contact turned to their immediate superior, one quarter spoke with their managing director, while

the remaining quarter turned to other directors. Two-fifths (also) lodged a complaint with the local works council. In the case of sexual discrimination, the most frequently consulted points of contact are immediate superiors, followed by local gender equality officers and works council members. Superiors and local representatives and works council members are the best known points of contact among the workforce. There are also significant misapprehensions here with respect to the (non-existent) confidentiality obligation of superiors, mediation services and compliance officers.

Chief recommendations

Before comprehensive measures are implemented, clear behavioral expectations should be defined and consequences specified. Important questions to clarify here are at what point work pressure becomes bullying and whether sexist behavior should lead to consequences or if that should be reserved for sexual harassment. Moreover, the consequences for misconduct should not be (exclusively) at the discretion of the affected institute, but a corrective should also be established for cases in which management could have bias or a conflict of interest. Generally recognized and observed rules can only be achieved by integrating all groups of employees at an institute. A key to the success of individual measures is also regularly evaluating their effects and improving them when required. Figure 3 summarizes the main building blocks of a program to strengthen a performance-driven and supportive and respectful working culture and atmosphere, free from social misconduct.

Background to the survey

The motivation behind the study

To obtain an informative picture of the working culture and atmosphere in the Max Planck Society, an organization-wide quantitative online survey was carried out between February 13 and March 13, 2019. At the same time, forty qualitative interviews were conducted. The interviewees were randomly selected employees at different stages of their careers at Max Planck, who gave an insight into the respective background conditions at the individual career stations. In addition, ten interviews were carried out with people with direct experience of bullying or sexual discrimination.

The results of the study presented here and the recommended actions based upon them are designed to help the Max Planck Society develop measures that strengthen a performance-driven yet also supportive and respectful working culture and atmosphere. For this report, we sought to present the most relevant survey results in a very compact fashion, structured around the recommended actions. These brevity constraints do not permit a comprehensive classification of the individual results. The contingency tables in the appendix of the report, which are referenced in the text using the naming format "Table A no.", allow readers to follow up in detail all the results of the quantitative survey presented.

A unique data set

In preparing the online questionnaire and in order to categorize the findings, the current state of research on bullying and sexual discrimination in scientific workplaces was comprehensively analyzed. Upon review of the existing literature, this survey of the Max Planck Society can be seen to have the following unique features:

- The survey's sample size is the largest, in absolute terms, of any investigation of a single organization to date. There is a very good ratio of sample size to survey population in comparison with other macro studies (such as the EU's Gendercrime report on bullying).
- This study is unique in focusing on working culture and atmosphere in the field of cutting-edge research, whereas the majority of existing studies include or exclusively cover academic teaching.
- It is very rare that all people working at an organization are asked to participate in a study – everybody from doctoral candidates, postdoctoral researchers and scientific staff in leadership positions, to non-scientific staff.

In comparison with the reviewed studies and in terms of sample size, detail and range of issues covered, this study has produced an **internationally unique data set on working conditions in cutting-edge research**.

Benchmarks for bullying und sexual harassment und discrimination

The uniqueness of the data set and the dearth of research on working conditions in cutting-edge research to date limit the comparability of the study's findings. The number of respondents at the Max Planck Society who answered in the affirmative when asked whether they had been **bullied** at work over the previous 12 months falls into the **average range** of the reference values for studies on bullying in the workplace. The prevalence of self-ascribed experiences of **sexual harassment or discrimination**, on the other hand, is **below average**.

A representative survey of Czech university employees returned a value of 7.9% for the self-ascribed status of "bullied," which is slightly below the corresponding value in the Max Planck Society survey (Zabrodska and Květon, 2013). In a British survey of 14,000 higher education professionals at the elite institutions of Cambridge University, Oxford University and University College London, around 20% of respondents reported that they had experienced bullying at least "occasionally." This is well above the corresponding figure for the Max Planck Society (University and College Union, 2012). It should be noted that in the case

of academic or scientific professionals, one of the most prominent sources of bullying is contact with students – a factor which is largely absent at the Max Planck Society (Lampman et al., 2009).

In a meta-study of 102 articles about the prevalence of bullying in the workplace, Nielsen et al. (2010) calculated a general reference value of 14.6%. This value varies depending on the method of measurement. Using the figures for respondents who said they were affected by bullying as the basis yields a reference value of 9.3% in the case of random sampling. The authors also analyze regional differences, finding that bullying in the workplace is three times less common in Scandinavian countries (4.6%) than in other European countries (13.8%).

As with bullying, respondents were asked to indicate if they had been the subject of sexual discrimination and also about their experiences with various kinds of behavior (behavioral items). In the self-ascription part, respondents were asked if they had experienced "sexual harassment or discrimination." The behavioral items included sexist behavior, such as "unequal treatment based on gender." With regard to the self-ascription figures, the Max Planck Society is well below the reference values of other studies. If we factor in the experience of gender-related unequal treatment by female research management personnel, the value for the Max Planck Society is comparable with the reference values, but when we factor these items out, the Max Planck Society is well below the reference values.

In a meta-study on sexual harassment in the workplace in the United States, Ilies et al. (2003) calculated a reference value of 24% of women who told surveys that they had experienced sexual harassment or discrimination. For the experience of potentially sexually discriminating behavior, measured using behavioral items, they found a value of 58% for women. The study by Ilies et al. (2003) also gives a reference value for the academic sector. When asked to self-ascribe their experience, 16% answered in the affirmative. And 58% responded that they had experienced problematic behavior. A report published last year by the US *National Academies of Sciences, Engineering, and Medicine* assigns a value of around 20% to the self-ascribed status of female employees as "sexually harassed" (National Academies of Sciences, Engineering, and Medicine, 2018).

Research approach and representativeness

A comprehensive research approach to combat bullying and sexual discrimination

In order to derive and develop targeted measures for the continued improvement of work culture and atmosphere, a comprehensive research design was chosen (Figure 1). Experiences of bullying and sexual discrimination were assessed in detail and by means of a variety of approaches, and measured against current "gold standards."[1] In addition, respondents were questioned about a comprehensive range of surrounding factors, such as their immediate superior's leadership style and the workplace gender ratio, and various items of structural data, such as age, gender, section affiliation, position, etc.

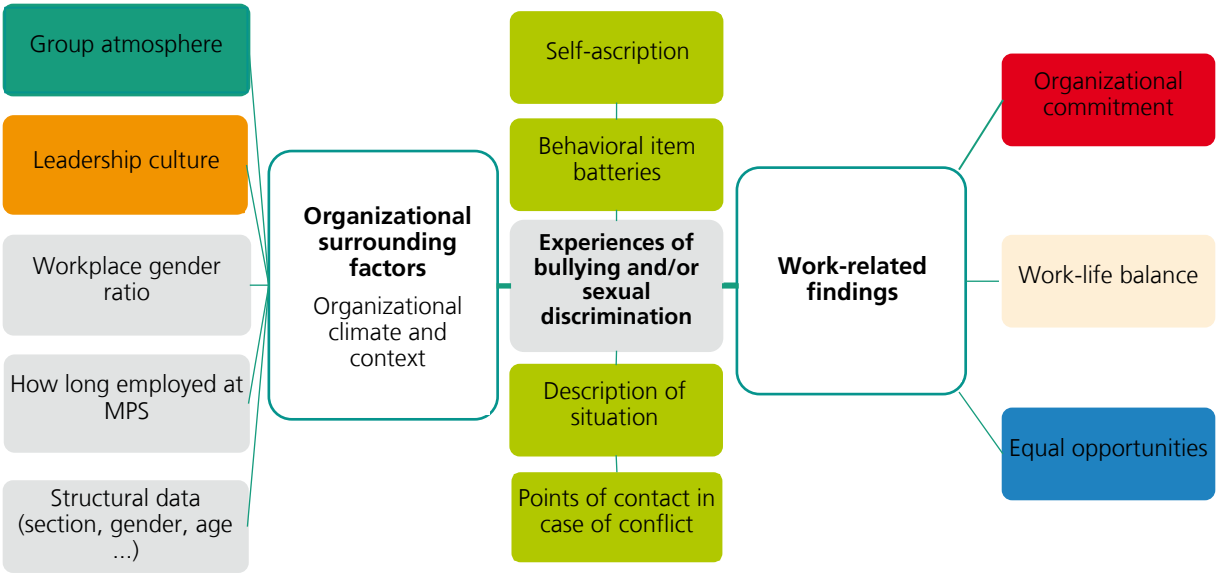

Figure 1: Overview of the variables taken into account in the study model with respect to the context, prevalence and findings of experiences of bullying and sexual discrimination.
The variables highlighted in color are described in greater detail in the present report.
Source: Own expanded presentation based on Willness et al., 2007, p. 133.

Current research demonstrates that experiences of bullying and sexual discrimination have both health- and work-related consequences (Willness et al., 2007). The state of health of employees at the Max Planck Society is the subject of other surveys. The focus of this survey was on the work-related effects – that is, organizational commitment, the dedication of employees to their facility or institute, their work-life balance, and equality of opportunities between the sexes and between employees with and without children.

Excellent participation rate

More than half of the 23,767 people working at the Max Planck Society took part in the survey. After data cleansing, there remained evaluable questionnaires from 38% of employees (Figure 2). This very high participation rate, particularly for a decentralized research organization, is in no small measure thanks to the support of the president and the secretary general of the Max Planck Society, both of whom promoted the survey and underlined its importance via the organization's intranet and in emails to all its employees.

[1] Specifically, the *Negative Acts Questionnaire (Revised)* was used to measure bullying and a short version of the *Sexual Experience Questionnaire (DoD)* was used to measure sexual discrimination.

Figure 2: All employees of the Max Planck Society, all survey participants and the ultimately evaluable data sets, in absolute figures.

Very good data quality

Thanks to the high participation rate among employees, a high quality data set was obtained, allowing for very detailed analyses. By way of comparison, renowned polling institutes such as the Allensbach Institute and forsa draw on samples of 1,000 to 2,000 persons when simulating voting behavior in Germany.

When it comes to representativity, however, what is crucial is not the participation rate, but a lack of sample bias. As can be seen in Table 1, this criterion was largely satisfied. Nevertheless, employees with non-German citizenship and guest scientists and researchers are under-represented.

The data allows conclusions to be drawn about the three sections of the Max Planck Society and the domain of the other facilities. As respondents were not asked in the survey which institute they belonged to, we cannot draw any conclusions about the work culture and atmosphere in individual institutes. Consequently, the survey delivers organization-wide and section-wide benchmarks.

Table 1: Comparison of various employee groups at the Max Planck Society, as a proportion of the survey population (according to HR statistical data), and as a proportion of respondents.

Employee group	HR statistics (31.12.2018)	Survey (14.03.2019)
Women	43.2%	48.6%
Employees with non-German citizenship	35.5%	25.5%
Employment contract holders	88.2%	91.5%
Scholarship/funding contract holders	3.4%	5.7%
Guest scientists	8.3%	1.6%
Directors and research group leaders	2.8%	6.4%
Postdoctoral researchers	11.6%	17.0%
Doctoral candidates (excl. IMPRS)	16.0%	20.3%
Non-scientific staff	36.0%	40.0%

Recommended actions

The Max Planck Society pursues a policy of zero tolerance which seeks to create a work culture and environment in which bullying and sexual discrimination cannot take root and where such conflicts are managed effectively and in a satisfactory manner for all concerned. As a general rule, the cultural and organization-specific context influences whether certain kinds of behavior are perceived as bullying or sexual discrimination. Compared with the results of other studies, the prevalence of bullying is average in the Max Planck Society, whereas the prevalence of sexual discrimination is below the average.

First of all, we will present below the main risk factors for a research organization such as the Max Planck Society. Then we will outline recommended actions designed to help minimize the influence of these risk factors. After that, we will list recommended actions designed to help address challenges that are specific to the Max Planck Society and which draw on the present findings of the survey. Finally, we will propose a structured and comprehensive program that brings together and interconnects all levels, sections and administrative functions of the Max Planck Society in order to combat misconduct in the workplace.

Aspects specific to the Max Planck Society

The Equal Employment Opportunity Commission, a US federal agency tasked with ensuring the implementation of the applicable anti-discrimination legislation in the labor market, has formulated concrete risk factors for bullying and sexual discrimination (Feldblum & Lipnic, 2016). Everyday working life in the Max Planck Society is characterized by a range of these risk factors, which however are very institute-, discipline- and section-specific:

The workforce can be **very homogeneous** in some areas: Three-quarters of the scientific personnel in the Chemistry, Physics and Technology Section are male. There are almost no non-scientific employees with non-German citizenship. In the youngest age cohort (15-29 years old), there are almost no employees with children. At the same time, there are **cultural and language differences**. A large portion of the scientific personnel has non-German citizenship, with many coming from cultures quite remote from German customs. When they start work at the Max Planck Society, they encounter a non-scientific workforce that is almost exclusively made up of German nationals.

The workforce is **young**. The average age of employees at the Max Planck Society is 39, which is younger than the average age of German employees of 44 (HR statistics & Destatis 2018).

Scientists and researchers sometimes work isolated in **small teams** or alone. Particularly in the Human Sciences Section, academic dissertations are not carried out in teams, but alone.

Moreover, **large power imbalances** are characteristic for scientific work in general, as the employer in many cases is simultaneously the supervisor of the academic dissertation and – as an expression of the Harnack principle – the entire governance of the institutes is focused on the respective Board of Directors.

Another typical characteristic of the Max Planck Society is its **strong decentralization** and the high level of autonomy enjoyed by its institutes. In the survey and the interviews, there was no indication that this decentralization promotes social misconduct in the form of bullying or sexual discrimination. However, they did reveal that the decentralization facilitates a wide range of different organizational qualities. The work atmosphere and culture of the individual institutes is dependent on local factors, in particular the leadership style and the ability to collaborate of the respective institute management.

In addition to the specified risk factors, there are a range of characteristics of scientific work that can facilitate bullying and sexual discrimination. One example is **temporary contracts** that sometimes, including in the Max Planck Society, still do not cover the full duration of a dissertation project and which in some cases are concluded with the specific supervisor him-or herself or with "his" or "her" institute. Another essential characteristic of scientific work is its **high degree of uncertainty**: Does a line of research bring forth new observations? Does it manage to publish new results on time? This uncertainty in conjunction with the high performance expectations on junior scientists and researchers creates pressure, as illustrated by Quote 1. Good supervisors provide support during the research process and show alternatives routes in the case of a scientific failure. Poor supervisors build up abstract performance expectations and leave their doctoral candidates and postdoctoral researchers alone with them.

"I feel very, very sad to say that the situation is that they are so focused on publishing that they forget what it takes to publish. […] And if you see, if you measure the number of divorces, the number of single people, yes, it's very clear that there is a human cost in that."

Quote 1: Doctoral candidate.

Avoiding bullying and discrimination in future – Recommended actions

The following recommendations are intended as a "construction kit" that provide the basic building blocks for a coherent prevention policy against misconduct in the workplace. Comprehensive recommended actions that reflect the latest state of research are explained in extensive detail in a report by the US *National Academies of Sciences, Engineering, and Medicine* about the sexual harassment of women in science (National Academies of Sciences, Engineering, and Medicine, 2018). From the above report, we derived the following recommendations for the Max Planck Society, supplemented them, and adapted them to the special characteristics and the challenges facing the Max Planck Society.[1] We will present specific problem-related recommendations in the next section below.

Create strong sense of commitment in superior, so that they can be role models and multipliers

A cultural change can only succeed if the implemented measures are accompanied by a clear, public and repeated expression of superiors' commitment to them. Superiors are role models and their behavior largely sets the tone for what behavior is considered desirable and acceptable. Superiors should repeatedly speak up in favor of the zero-tolerance policy of the Max Planck Society in front of the workforce, and they should authentically embody its principles.

Accordingly, superiors should be given comprehensive support to help them acquire expertise in leadership behavior and conflict management and a clear understanding of the rules governing social and scientific misconduct. These **management training courses should be mandatory** and not exclusively designed around avoiding liability. They should enable superiors to recognize social misconduct at their institute at an early stage and forestall it by means of establishing a supportive and respectful working culture.

A preventative leadership style promotes the psychological security of the group members. If employees are given the feeling that they can directly raise concerns and problems without fearing negative consequences, they will mention the problems at an earlier stage and in a more open manner.

[1] Further aspects were supplemented from Daley et al. (2018).

Impress on all employees their individual responsibility and make clear to them the importance of their contribution toward effecting a lasting cultural change

Equally important as the commitment of superiors is that all employees also feel responsible for creating a supportive and respectful and performance-driven work atmosphere and step in when they observe social misconduct in their environment. This behavioral expectation should be expressed by superiors and explicitly formulated in a code of conduct. The individual members of a group can agree among themselves to show zero tolerance for bullying and sexual discrimination.

Create a diverse, inclusive and respectful work environment in order to ensure acceptance for alternative viewpoints and life stories

The ultimate goal of a prevention policy should be to create an inclusive and respectful work atmosphere that is supportive and tolerant of other viewpoints and background experiences. The management of the Max Planck Society should undertake measures to facilitate the inclusion of the perspectives of all groups of people in decision-making processes. Furthermore, they should identify groups of persons (e.g. non-scientific employees, employees with non-German citizenship, postdoctoral researchers) that are structurally under-represented in the respective institutes and sections and strengthen their representation through existing or new boards or councils. Willingness to cooperate and respectful and professional behavior in the workplace should be promoted by superiors and training courses and should also be taken into account as a basic skill when hiring and advancing employees.

Bullying and sexual discrimination are closely linked phenomena. A third (35.3%) of people who said that they had experienced bullying at least once a month over the past 12 months also stated that they had been affected by sexual discrimination. A comprehensive approach to combating social misconduct can genuinely work to strengthen the existence of a supportive and respectful and performance-driven work culture and atmosphere. Programs combating sexual discrimination should be combined with **civility programs** promoting proper conduct in the workplace.

Proper conduct in the workplace is **non-negotiable**. And when resolving conflicts in the workplace, everyone involved should also conduct themselves in a civil manner. Training courses should therefore not be aimed at getting participants to change their opinions, but at communicating clear expectations about appropriate behavior and the consequences of misconduct.

Training programs should be customized for different target groups (scientific/non-scientific employees, superiors, PhDs, etc.) so as to address their specific needs. They should be based around good practical examples and regularly updated and evaluated with respect to their effectiveness. The training courses should enable employees to recognize misconduct as such and to intervene when they experience or witness inappropriate behavior in their workplace. Post-training measures can help increase the effectiveness of training courses. Examples of this include compact online refresher courses, audits or incentive systems for the implementation of training goals in the workplace.

Act early against the most common types of bullying and sexual discrimination in order to remove breeding grounds for misconduct

Superiors and training programs should devote their attention not only to extreme forms of misconduct, but in particular to combating work-related bullying and gender-specific discrimination. These forms of bullying and sexual harassment affect the most employees in the Max Planck Society and form the breeding ground for further misconduct.

To change the work climate and culture, we must go beyond observing statutory regulations

The statutory definitions of sexual harassment and bullying are relatively convoluted and, particularly in the case of bullying, not adequately defined. Furthermore, a formal complaint must be submitted, and the burden of proof is always on the complainant (§22 German General Act on Equal Treatment (*Allgemeines Gleichbehandlungsgesetz*); Research Services of the German Bundestag (*Wissenschaftliche Dienste des Deutschen Bundestages*), 2017). In the survey, however, it became clear that instances of sexual discrimination in particular were often below the threshold to legally qualify as minor infringements, but nevertheless harmed the work atmosphere from the perspective of those affected. Superiors should be sensitized and encouraged to listen to their employees in **performance reviews** and in informal contexts, as to how they experience the work culture and atmosphere at the respective institutes and facilities.

Strengthen transparency and accountability in order to create general confidence in the conflict resolution mechanisms and effectively manage conflicts

To avoid any lack of clarity among employees about what a "zero-tolerance policy" means and entails, and to show that the policy is enforced seriously, there must be clear rules of conduct and consequences for misconduct, which must be widely publicized among employees. In addition to codes of conduct to protect against sexualized discrimination, harassment and violence and against scientific misconduct, the Max Planck Society should also create a **code of conduct** that sets out clearly what constitutes bullying in the workplace. Such a code of conduct would describe what recourses are available to those affected by these issues and what the consequences of misconduct are. Decisions about consequences in the case of a breach of the codes of conduct should be taken promptly and be equally fair to those affected by misconduct and the accused (toughening sanctions for misconduct, **see Case Study 1: UC Berkeley**).

Clear rules should be formulated as to when the administrative board and the president should be brought in to help resolve conflicts and what their roles should be. The behavior of all actors should be clear and transparent to the accused and to those affected by misconduct. This will avoid situational interventions "from upstairs" and strengthen the sense of justice and fairness among everyone involved in a conflict.

Employees need confidence in the effectiveness and neutrality of the conflict resolution processes. In the context of the **annual report**, therefore, the type and number of complaints submitted should be treated in a transparent manner. Employees who have submitted a complaint, but also those affected, should be notified about the disciplinary consequences imposed.

To combat social misconduct in a lasting manner, it needs to be treated as seriously as scientific misconduct. Consequently, cooperation and communication should be encouraged between the corresponding contact points for reporting misconduct (e.g. Gender Equality Officers and ombudspersons). The work climate at the institutes should be an integral part of the regular **evaluations**.

CASE STUDY 1: UC BERKELEY

CONSEQUENCES FOR MISCONDUCT COMPREHENSIVELY TOUGHENED UP

What happened?

At the University of California, Berkeley (UC Berkeley), accusations were made at the end of 2015 that a (male) astronomy professor had sexually harassed female students. Initially, the Gender Equality Office was informed about the incidents by four former female students of the professor in March 2014. In response, the university launched an investigation to look into the accusations, which spanned a period from 2001 to 2010. The professor was accused by students of having kissed, groped, touched or massaged them in unsolicited approaches. The behavior of the professor toward his female students was widely known among his colleagues in the astronomy department, but there had been no previous complaints or accusations, because the female students were in a relationship of dependency toward their professor/supervisor.

Handling of the accusations

Following the conclusion of the investigations, the university informed the professor that any further breaches of the code of conduct would lead to strict sanctions, but that for the present he would be allowed to continue to exercise his professorial duties. After the accusations were published in October 2015, 24 astronomy researchers at the University of California signed an open letter demanding that he either resign or be fired by the university. He was prevented from participating in one of the most important astronomy conferences in December 2015 on account of the accusations. As a result, the professor resigned from the conference's organization committee. Five days after publication of the letter, he accepted the consequences of the accusations and resigned his professorship and from other scientific posts.

Actions taken in response to accusations

At the University of California, a study was carried out to investigate sexual harassment on campus in response to further accusations against professors, and the punitive measures for breaches of the code of conduct were toughened up. In addition, a task force was set up with the primary job of investigating cases of sexual harassment on campus, and provisions were made for the establishment of a confidential advisor on every campus at the University of California. On top of this, further education programs and training courses were introduced at the faculties for staff and students.

On account of the many further accusations of the sexual harassment of female students by professors, the *National Academy of Sciences* (NAS) became active and initiated a procedure whereby members of the academy who breach the code of conduct can be expelled. According to the code of conduct, discrimination, bullying and sexual harassment could now lead to the expulsion of members. For this to happen, those affected by the misconduct must report the violation of the code of conduct to the NAS. However, the NAS does not investigate cases itself, rather the persons affected must submit suitable evidence or the findings of an investigation carried out by an external agency. Based on this information, the NAS evaluates cases and makes a judgment accordingly regarding the appropriate sanctions, which range from the exclusion from activities and events to dismissal from the academy. The NAS is a highly regarded feature of the scientific landscape in the United States, and previously members had been appointed for life.

Set minimum standards for good research management in order to reduce hierarchies and relationships of dependency

So that the career opportunities of junior scientists and researchers are not wholly dependent on the highly variable mentoring skills of their superiors, clear standards should be established. To this end, there are already approaches available such as the postdoc status meeting, which has only be taken up by some of the institutes or junior scientists and researchers at the Max Planck Society to date. Other tried-and-tested approaches such as the Thesis Advisory Committees or the International Max Plack Research Schools are currently not well established at all institutes. They reduce the dependency of junior scientists and researchers on their respective supervisors while also increasing the quality and transparency of scientific work. In the process of doctoral examinations, moreover, there should be better integration of researchers with non-German citizenship (at least among doctoral researchers).

Suitable measures should also be aimed at helping non-scientific employees, as they report bullying by their superiors just as often as scientific employees do. Overall, heads of institutes are critically important for the work atmosphere at their institute on account of their comprehensive expertise and the hierarchical governance structure. The Max Planck Society should define clear and **binding quality standards for management and organization** for all its institutes and facilities, so as to ensure consistently excellent research management on top of its consistently excellent research (for the broadening of standards pertaining to the making of staff appointments and supervision relationships, **see Case Study 2: ETH Zurich**).

CASE STUDY 2: ETH ZURICH

BROADENING OF STANDARDS PERTAINING TO THE MAKING OF STAFF APPOINTMENTS AND ACADEMIC SUPERVISION RELATIONSHIPS

What happened?

In October 2017, allegations became public concerning a (female) professor at the Institute for Astronomy at ETH Zurich, who was accused of systematically persecuting and bullying the doctoral researchers and postdocs under her supervision over several years. Furthermore, she was accused of putting to much pressure to perform on the doctoral researchers. For example, the doctoral researchers were refused vacation, and meetings were sometimes scheduled at weekends or late in the evening and running into the night. In addition, the professor was supposed to have humiliated female students in front of men, for example by saying that the time they wasted in putting on make-up would be better spent on creating analyses and plots. Doctoral researchers reported suffering from depression and abandoning their PhDs due to the circumstances at the institute. According to these accusations, the professor's behavior had breached ETH's Respect Code of Conduct.

The accused professor came to ETH Zurich with her husband in 2002. Together, they established the Institute for Astronomy. The husband was the director of the institute for a long time, which is why the affected doctoral researchers avoided the official complaints routes so as not to jeopardize their position and their PhD.

Handling of the accusations

As a consequence, the Institute for Astronomy was closed down even before the accusations became public. Following publication of the accusations against the professor in October 2017, ETH launched a procedure to investigate the possible firing of the professor. In March 2019, the university decided to dismiss the professor despite a recommendation by the investigating committee not to consider termination. The committee had determined that there was insufficient evidence to justify a dismissal

and recommended instead that other measures be taken: that doctoral researchers be withdrawn from the professor's charge, that she take a management coaching course, and that she undergo a two-year probation period. The attorney of the accused professor announced that they had made an appeal to the Federal Administrative Court (*Bundesverwaltungsgericht*) to assess the lawfulness of the dismissal.

Measures for future prevention

Since the events became public, ETH Zurich has taken several measures to enable it to recognize similar problems in future and be ready to act. In this way, ETH recognized that it as an institution also had an important role to play in the events. The leadership capabilities of professors will be incorporated into the hiring processes and will be developed by means of additional further education and training programs. Henceforth, the selection process for professors will be expanded to incorporate the input and opinions of non-professorial teaching staff and student representatives. To prevent relationships of dependency between supervisors and doctoral researchers, a system of multiple supervision will be introduced. Furthermore, to improve academic supervision, the feedback process between doctoral candidates and supervising professors will be made systematic and will contain certain topics such as leadership and cooperation. Equally, the staff at the ombudsperson's office was increased from two to three people, and an additional confidential advisor (previously one) was hired to handle cases of possible scientific misconduct.

Support those affected by misconduct to ensure their satisfaction with the investigative/disciplinary process and not to discourage future complainants

It takes a lot of courage to formally report bullying or sexual discrimination. With its numerous local Gender Equality Officers, works council members, PhDNet and respective superiors, the Max Planck Society has a good infrastructure in place to facilitate the articulation of complaints about social misconduct in an anonymous and non-intimidating manner. In the interviews, however, people expressed relatively little confidence in these reporting channels. Interviewees reported that the respective contact persons and boards felt they were not responsible in specific cases; or were of the opinion that they could not help on account of the hierarchies at the institute; or had members who were implicated in the problem. In particular, when employees have conflicts with the directors of their institute, they often have no person or office they can turn to for mediation before the conflict escalates. There is an imbalance here: Whereas directors already have recourse to their channels of communication in the administrative board at an early stage, the submission of a formal complaint to the administrative board is often the last resort for employees. This is where the newly launched **Employee and Manager Assistance Program EMAP** comes in. The existence of the program should be widely publicized and its effectiveness should be evaluated.

In the interviews, people affected by misconduct reported that current conflict management measures are focused primarily on the accused. Their objective is to investigate whether a person has been rightly or wrongly accused of misconduct and what consequences (if any) should follow. At present, therefore, the processes fail to adequately address those affected by misconduct and the damage caused to their career or their mental health and well-being.

As bullying is generally a group phenomenon and whole groups often suffer on account of a bad work atmosphere, particularly in the case of misconduct by superiors, it is frequently the case that further group members are affected as well as the specific complainants. In order to provide comprehensive assistance in the case of escalating conflicts, a thorough investigation should determine what other people are affected by social misconduct in addition to the complainants. They should also be offered psychological counseling and, if appropriate, health services (particularly in the case of non-German employees with voluntary health insurance or none at all). These **support programs** should be prepared so that they are ready when needed, and adequate financial and human resources should be accessible for them at short notice.

It must be ensured that junior scientists and researchers in particular do not suffer any disadvantage to their careers as a consequence of disciplinary proceedings against an accused, such as retaliatory measures or the transfer of their superior (insofar as the superior can no longer as a result exercise his or her supervisory responsibility for other junior scientists and researchers). The Max Planck Society has a particular responsibility toward scientific employees from abroad, for whom taking up a role at the organization often entails a huge upheaval in their lives and who are therefore frequently all the more psychologically dependent in their relationship with their workplace and their supervisor. The responsibility of the Max Planck Society for the junior scientists and researchers it employs should not end with the expiry of the employment or scholarship contract, especially when we consider that alumni shape the reputation of their former employer at home and abroad.

Measure progress so as to make lasting change visible

The survey conducted among employees of the Max Planck Society was a starting point to acquire a comprehensive picture of the work culture and atmosphere in the Max Planck Society and to set organization-wide and section-specific benchmarks. To be able to judge the development of the work atmosphere in the institutes of the Max Planck Society and the effectiveness of the measures implemented to this end, **regular evaluations should be carried out at institute level**. When doing this, the relevant social science and data protection standards should be observed.

In addition to surveys, other sources of information can include focus groups, ethnographic observations and exit interviews, particularly for the reviewers engaged with the regular institute evaluations. These qualitative measures permit the collection of complementary data, which under certain circumstances can be gathered with less inhibition and reticence on the part of respondents and may also be better suited to capturing the experiences of the representatives of minority groups. Formal complaints alone are insufficient as an indicator for the development of the working atmosphere, as they represent only a fraction of conflicts that have already escalated.

To strengthen the confidence of the institute's workforce and counteract rumors and speculations, the findings of the evaluations should be made public or at least shared with the employees of the institute.

Addressing current challenges – Recommended actions

Now we will offer specific recommendations for individual findings of the current survey.

Strong prevalence of unequal treatment based on gender

Women are affected by sexual harassment and discrimination more frequently than men. That said, the general prevalence of sexual harassment and discrimination is below the average. Nevertheless, two out of every five female scientists and researchers indicated that they had experienced gender-related unequal treatment occasionally or more often than that in the year prior to the survey (compared to one in every ten men). Female scientific superiors in particular said they had experienced gender-related unequal treatment at least occasionally (59.1% vs. 43.1% for doctoral researchers, 42.1% for postdoctoral researchers and 29.4% for other research associates employed). This unequal treatment manifests itself in various ways, such as: female scientists and researchers having fewer career-related personal meetings with their superior; fewer female scientists and researchers confirming that their superior uses his or her influence to advance their career; and the relatively higher number of female scientists and researchers who respond that they have incurred professional disadvantages as a result of pregnancy, parental leave and having children. Quote 2 shows an example of sexism in the workplace.

"This happened to a colleague. […] she was negotiating an extension, the supervisors said: 'Yeah, but your partner can pay for you. You don't need to have a salary, your partner can pay for you, your boyfriend.'"

Quote 2: Doctoral researcher.

Recommended measures:

- **Awareness training about conscious and unconscious gender bias**
  To ensure equality of opportunities in career development, awareness training should be carried out with superiors in particular. The course leaders will help participants become aware of unconscious stereotypes between and with the sexes and will communicate clear behavioral expectations. A range of channels – such as talks, brochures, videos, etc. – should be used to raise awareness.
- **Mandatory career progress meetings to increase employee satisfaction and promote systematic HR development**
  The findings of this study show that employees who have a regular one-to-one meeting with their superior about their career development are more likely to positively evaluate the group climate, their superiors and their commitment. They also experience social misconduct less often. On account of this positive correlation between one-to-one career progress meetings and so as not to leave career development be determined by situational factors, which in cases of doubt tend to disadvantage women, annual evaluation meetings should become a compulsory HR management tool for all employees.
- **Strengthen Code of Conduct Against Sexual Discrimination**
  The "Code of Conduct – Protection against Sexualized Discrimination, Harassment and Violence" of the Max Planck Society applies a broad understanding of sexual discrimination based on the German General Act on Equal Treatment and sets out the procedures to follow in the case of a complaint. A fault with the current set-up is that the measures to be taken are placed at the sole discretion of the respective institute management. This makes it unlikely that the misconduct of members of the institute management will be sanctioned by the management itself – e.g. in the case of sexual harassment below the threshold for a petty offense under criminal law or gender-related unequal treatment in HR decisions. As the members of the institute management generally have close relationships – no doubt amounting to friendships in some cases – with many of their employees, it is hard for those affected by misconduct to gauge whether the institute management will act impartially in the event of a complaint. It should also be investigated if and to what extent

the institutes and facilities of the Max Planck Society have implemented works agreements about social conduct and interaction.

Every second non-German employee has experience of being excluded

The correlations in the data between the nationality of scientists and researchers and their responses to the survey show a mixed picture. Scientists and researchers with EU citizenship are more likely to praise the support they receive from their superiors in career development, to praise their superiors' respect for rules and processes, and to have had a feedback meeting with superiors than their German and non-EU counterparts. On the other hand, one in every two EU scientists and researchers indicated that they had at least occasionally felt ignored or excluded (45.2% vs. 28.1% for Germans and 37.3% for non-EU nationals). Scientists and researchers from non-EU countries were more likely to have experienced sexual harassment or discrimination at the Max Planck Society (10.4% vs. 8.0% for EU scientists and researchers and 7.2% for German scientists and researchers). The proportion of non-German scientists and researchers who said they had experienced personally insulting sexist remarks was also particularly high (21.9% for EU scientists and researchers vs. 17.0% for non-EU scientists and researchers and 11.1% for German scientists and researchers).

Recommended measures:

- **Awareness training courses to improve communication between German and non-German employees**
  Awareness training courses should be created for all new scientists and researchers, superiors and non-scientific employees of the Max Planck Society. As the scientists and researchers at the Max Planck Society come from very different cultural backgrounds, it is important to convey clear expectations regarding behavior in the workplace – ideally with the help of a suitable code of conduct. Non-scientific employees should be made aware of the different needs and the potentially greater need for advice and guidance of non-German employees. Superiors should be made conscious of the specific situation of non-German scientists and researchers and should be given the support they need to create the right background conditions that will enable their diverse teams to deliver optimum performance.

- **Expand qualification programs to facilitate better networking between doctoral and postdoctoral researchers.**
  Qualification programs (best practice: IMPRS) improve the networking of scientists and researchers and facilitate a structured introduction to the workplace. By virtue of neutral coordinators, they reduce the dependency on a single supervisor or superior. For postdoctoral researchers in particular, there is a lack of such programs available at present. An onboarding process with an institutionalized meeting-and-introducing component could be useful for new scientists and researchers.

- **Peer mentoring to strengthen integration**
  Peer mentoring involves matching up new employees with a coworker who supports and assists them with questions and problems during their first six months at the Max Planck Society, thus making the onboarding process easier for them.

There is a lack of structural support for the career development of junior scientists and researchers

The proportion of respondents who answered affirmatively to the individual statements about receiving career development support from their scientific superior was 50.4% for doctoral researchers and 47.3% for postdoctoral researchers (Table A 41). Thus, junior scientists and researchers, who are presumably the main group at which career support is aimed, answered positively to the individual statements less frequently than superiors and only slightly more frequently than other research associates employed. Support for career development is evaluated more critically as the qualification phase progresses – i.e. precisely when the support is meant to bear fruit. In addition, there are statistically significant differences

between the individual sections. In the Chemistry, Physics and Technology Section (CPTS), career support is evaluated more positively than in the Biology & Medicine Section (BMS) and the Human Sciences Section (GSHS). In BMS and GSHS, career support is rated similarly to its evaluation in the other domains (Table A 49). Consequently, junior scientists and researchers experience very situational career support in the Max Planck Society – dependent on the personality of their superior, the institute and the section.

Recommended measures:

- **Structure career development to ensure minimum qualitative standards for all employees**
  As already mentioned above, annual evaluation meetings between employees and their superiors should be mandatory in all domains. The meetings about the employee's career progress and further career development aims should have a semi-standardized structure and be documented. In the meetings, the employee's development should be discussed with reference to the documentation of the previous meetings. The annual evaluation meetings can also cover the topic of career paths outside the academy and support possibilities for such a career, as a significant portion of doctoral and postdoctoral researchers subsequently go on to start a career in the private sector. Further measures for structuring career development are the use of qualification tools in order to systematically elicit the personal goals and skills of employees and then individually adapt training measures and annual evaluation meetings to their specific needs and interests. Furthermore, training and further education offers for doctoral and postdoctoral researchers should be made transparent, so that they can determine their career development autonomously. Coordinators play a key role in doctoral programs, which could be strengthened as additional contact points for the career development of doctoral researchers.
- **Show alternative career paths so as to offer comprehensive career development advice**
  Not all doctoral or postdoctoral researchers will remain in the academy following the completion of their qualification phase. And in some cases, students abandon their academic dissertation. To take better account of this reality, the Max Planck Society can offer courses for doctoral and postdoctoral researchers, showing them how to manage a successful exit from an academic career. As part of networking events, junior scientists and researchers can attend presentations by employers from the private sector or from Max Planck alumni who have successfully made the switch to the private sector or other spheres of work.

Problematic work-life balance for scientists and researchers, children as career disadvantage for women

One in every two scientists and researchers indicated that their private life suffered on account of work at least several times a month (other research associates employed less frequently – 35.6%). As such, gender and responsibility for children under 18 have less of an influence on the perceived work-life balance than perhaps expected. Pregnancy, children and in particular parental leave have a disadvantageous impact on the careers of female scientists and researchers more often than they do for male scientists and researchers. One in every two scientists and researchers indicated that they had taken less parental leave than wanted in order to avoid professional disadvantages.

Recommended measures:

- **Design qualification phases in a family-friendly manner so as to avoid dropping out and double burdens**
  According to the German Academic Fixed-Term Labor Contract Act (*Wissenschaftszeitvertragsgesetz*), parental leave periods must be added on to contract periods (§2 Para. 5, No. 1 WissZeitVG). This compulsory rule is frequently circumvented in practice by various means, such as deducting the parental leave period from the regular duration of follow-on contracts, or the superior exerting social pressure on the parent to take less parental leave than they would want. Superiors should receive training in how to accept applications for parental leave in a positive manner without critical comment and how to make the proper organizational arrangements to cover the pending absence.

- **Ensure childcare provision close to workplace**
  In many regions of Germany, the available childcare options for parents are still inadequate: frequently there are not enough places at day care centers and after-school centers, and the opening hours are often too short. The Max Planck Society can offer daycare options at its institutes or contractually reserve places in nearby centers for the children of employees. By doing this, we assist parents in finding a daycare place, minimize absences caused by a lack of daycare and get the most out of employees during their chosen working hours.

- **Awareness training for superiors in order to establish a modern appreciation of performance**
  Superiors are often on-site in their role as leaders and they often (unconsciously) expect the same from their subordinates. However, these expectations mean that it is not scientists and researchers with excellent work performance as such who advance in the organization, but those who have the most time or are the most flexible with their time. It should be the aim of the Max Planck Society to get away from an irrational ideal of the perfect scientist as one who is always there in the workplace and embrace more objective performance indicators (such as number of publications, international collaborations, conference speeches or citations).

Shifting attention to non-scientific staff and postdoctoral researchers with regards to bullying prevention

With its survey of doctoral candidates, the doctoral researcher network of non-university research institutions (N^2 network) and thus also the Max Planck PhDnet were able to highlight abuses, shortcomings and proposed solutions in doctoral relationships. However, it should be appreciated that it is not only doctoral researchers who are affected by pressure to perform and bullying. The perspectives of postdoctoral researchers and non-scientific staff in particular should be taken properly into account alongside those of doctoral researchers when developing measures, as these groups also frequently – and indeed sometimes more often – experience misconduct in the workplace. In particular, the employees of the structural domain who have been affected by bullying differ from scientific employees in terms of their age, nationality, contractual status, education and motivation.

Recommended measures:

- **Strengthen incentive systems for employees in the structural domain and other scientific staff in order to also provide employees without qualification projects with long-term motivation**
  The incentive systems at the Max Planck Society are designed for the needs of scientific employees. Scientists and researchers attain visibility through published papers in academic journals and are closely engaged in communication and the exchange of ideas with their specialist communities. Non-scientific personnel and other permanent scientific staff who chiefly obtain their professional recognition within the Max Planck Society should be better appreciated and receive greater motivation.

- **Set up qualification programs and a formal structure to represent the interests of postdoctoral researchers in order to make their needs more visible**
  In many respects, the needs for supervision and networking and the dependency relationships are similar for doctoral and postdoctoral researchers. The scientific career of postdoctoral researchers is already more focused in comparison. In addition, they are more experienced and questions of family planning have greater relevance. Whereas doctoral researchers have their own representative structures and doctoral programs are become increasingly common, there is a lack of corresponding structures for postdoctoral researchers.

Give directors optimal support in research management

The interviews with directors revealed that the structure of the interactions in the Board of Directors of an institute is wholly at the discretion of the directors themselves. After a director is appointed at the recommendation of his/her future coworkers, there is no corrective for worsening interpersonal relationships. Consequently, the spectrum of organizational structures in the Max Planck Society ranges from institutes that continuously exercise leadership responsibility in a collegial fashion and have a high degree of cross-departmental collaborations (or indeed no departments at all) to institutes whose directors make scant attempt to hide their mutual animosity. The interviews conducted indicate that in institutes with departments that are largely isolated from each other, a culture tends to develop of looking the other way in cases of conflict. In these institutes, when a director engages in or tolerates social misconduct, the employees are unable to do much to address the situation on account of the hierarchical structure of the institutes. The other directors oppose encroachment in the work domain of their coworker, because they do not want others interfering in their domain. This kind of work culture is a fertile breeding ground for social misconduct.

"[…] you know basically a scientist would be happy to say: 'Okay, take care of the administration, I take care of the science.' The problem is that it does not happen like this. The administration is getting more and more powerful to put a lot of administration tasks on the directors more heavier, more complex and taking even more time away from the science."

Quote 3: Director.

In the interviews with directors, the wish was often expressed that their administrative duties be curtailed. The cumulative administrative burden at the top of institutes is perceived by the scientific superiors as a distraction from their core tasks (see Quote 3). Moreover, this can lead to an even greater amount of power invested in directors, if they have to countersign every application for a vacation or work trip in their department, as is sometimes the case. By the same token, the supervision of junior scientists and researchers suffers accordingly if their supervisor is tied up in bureaucratic processes or cannot be reached due to work trips.

Recommended measures:

- **Expand mandatory onboarding programs for scientific superiors in order to ensure comprehensive hard and soft skills for research management**
  On account of their large scope of influence, directors bear particularly great responsibility in the Max Planck Society. In the course of mandatory onboarding programs consisting of several thematic modules, it should be ensured that directors possess the requisite skills (e.g. in administration, academic networking, leadership behavior and how to behave in cases of conflict) to discharge this responsibility. The individual modules should be freshened up at regular intervals so as to achieve long-term effects.
- **Clearly divide up tasks and responsibilities in order to avoid conflicts or a decision-making vacuum**

So that conflicts do not arise in the Board of Directors due to overlapping competencies, and to prevent inaction in the event of conflicts in the workforce due to the unclear allocation of responsibilities, the Boards of Directors should discuss clear decision-making rules, responsibilities and conflict management. These rules should go beyond an "everyone looks after their own land" mentality, so that conflicts can also be resolved when they actually lie in a coworker's sphere.

- **Strengthen administrative superiors in order to improve research management at the institute**
  The Max Planck Society should improve the pay of administrative superiors so as to remain competitive for the best scientific superiors. At the same time, the job description of administrative superiors should be expanded. They should be seen as contact persons for all employees to discuss their work situation and the quality of the work atmosphere at the institute.

- **Expand the senior researcher level to lighten the burden on directors**
  The expansion of permanent positions for non-professorial scientific staff promotes the transfer of knowledge between the different generations of permanent doctoral and postdoctoral researchers. This would meaningfully lighten the workload for directors in their responsibility for administration, project management and the supervision of junior scientists and researchers.

Superiors overestimate the atmosphere in their group

Scientific superiors consistently evaluate the individual sub-aspects of the group atmosphere more highly than the other research associates employed in their group. This perception gap suggests a communication deficit. As a result, problems or criticism are either not brought to the attention of superiors or are raised too late. The evaluation of the group atmosphere by superiors deviates in particular from that of doctoral researchers. The different perspectives illustrate that the need for action from the point of view of one group – for example, reform of the supervision of junior scientists and researchers – is not necessarily recognized by other groups.

Recommended measures:

- **Carry out institute-specific surveys to obtain a precise picture of the work atmosphere on site**
  The survey conducted organization-wide at the start of 2019 created a benchmark for the Max Planck Society as a whole, against which the work atmosphere and culture in one's own institute can be compared. This allows institute-specific needs for action to be identified. Regular surveys also give an insight into whether support measures are successful. When creating such surveys, care should be taken to guarantee the anonymity of respondents and to comply with data protection requirements.

- **Use team coaching sessions in order to increase the awareness of teams for the different perspectives of superiors and employees**
  Team coaching sessions are an organizational development tool whereby teams are supported in reaching a shared goal more time-efficiently. They help individual group members become more aware of challenges that exist at the collective level.

Routinization among non-scientific staff, doctoral researchers and postdoctoral researchers

The longer they are employed, there is a tendency especially among non-scientific staff, doctoral researchers and postdoctoral researchers for "routinization" to emerge. In particular, they come to view the shared vision and the participative safety in the group and all aspects of their evaluation of superiors with increasingly critical eyes the longer they work at the organization.

Recommended measures:

- **Embed participative processes to give all employees the opportunity to help shape their organization**

Individual stakeholders such as doctoral and postdoctoral researchers should be more closely integrated into the shaping of the institute's culture and processes via representative bodies. These councils can have an advisory function, and in some cases they are already in place. Through active participation and making contributions to the shared vision of the group, it is possible that the work satisfaction and self-identification of junior scientists and researchers can be improved.

- **Giving a dynamic structure to career support in order to properly reflect the development process of junior scientists and researchers**
  Meetings with the supervisor of the qualification project should properly reflect the growing experience of the doctoral or postdoctoral researcher, and as time goes on, the meetings should have a stronger focus on career development and scientific networking. One possibility would be a guideline in which the supervision process is divided up into different phases (e.g. onboarding, concept development, research, career development), in which the mentor can support the junior scientists and researchers in different forms.

- **Carry out reverse mentoring in order to systematically integrate the knowledge of junior scientists and researchers**
  In reverse mentoring, junior scientists and researchers form one-to-one exchange groups with scientific superiors, in which the junior member acts as the mentor for a suitable and relevant topic (e.g. scientific communication via social networks). Reverse mentoring can give fresh impetus to the routines that have set in over time in a supervision relationship.

- **Topic rotation for non-scientific staff so as to break up work routines**
  Non-scientific staff should also be given the opportunity to expand their skills and freshen up their work routines. One way of doing this is "horizontal further development," where employees learn the basics of new topic areas or other fields of work.

A coherent and comprehensive program for combating misconduct in the workplace – Joining up the recommended actions

Based on the recommended actions described above, Figure 3 summarizes the main building blocks of a program to strengthen a performance-driven and supportive and respectful working culture and atmosphere, free from social misconduct. Before comprehensive measures are implemented, however, clear behavioral expectations should be defined and consequences specified. Important questions to clarify here are at what point work pressure becomes bullying and whether sexist behavior should already lead to consequences. This interpretation should be communicated via a clear and repeated commitment on the part of the president and should continue at all management levels.

Moreover, the consequences for misconduct should not be (exclusively) at the discretion of the affected institute, so that there is a corrective available for cases in which management could have bias or a conflict of interest. Generally recognized and observed rules can only be achieved by integrating all groups of employees at an institute. An important key to the success of individual measures is also regularly evaluating their effects and improving them when required.

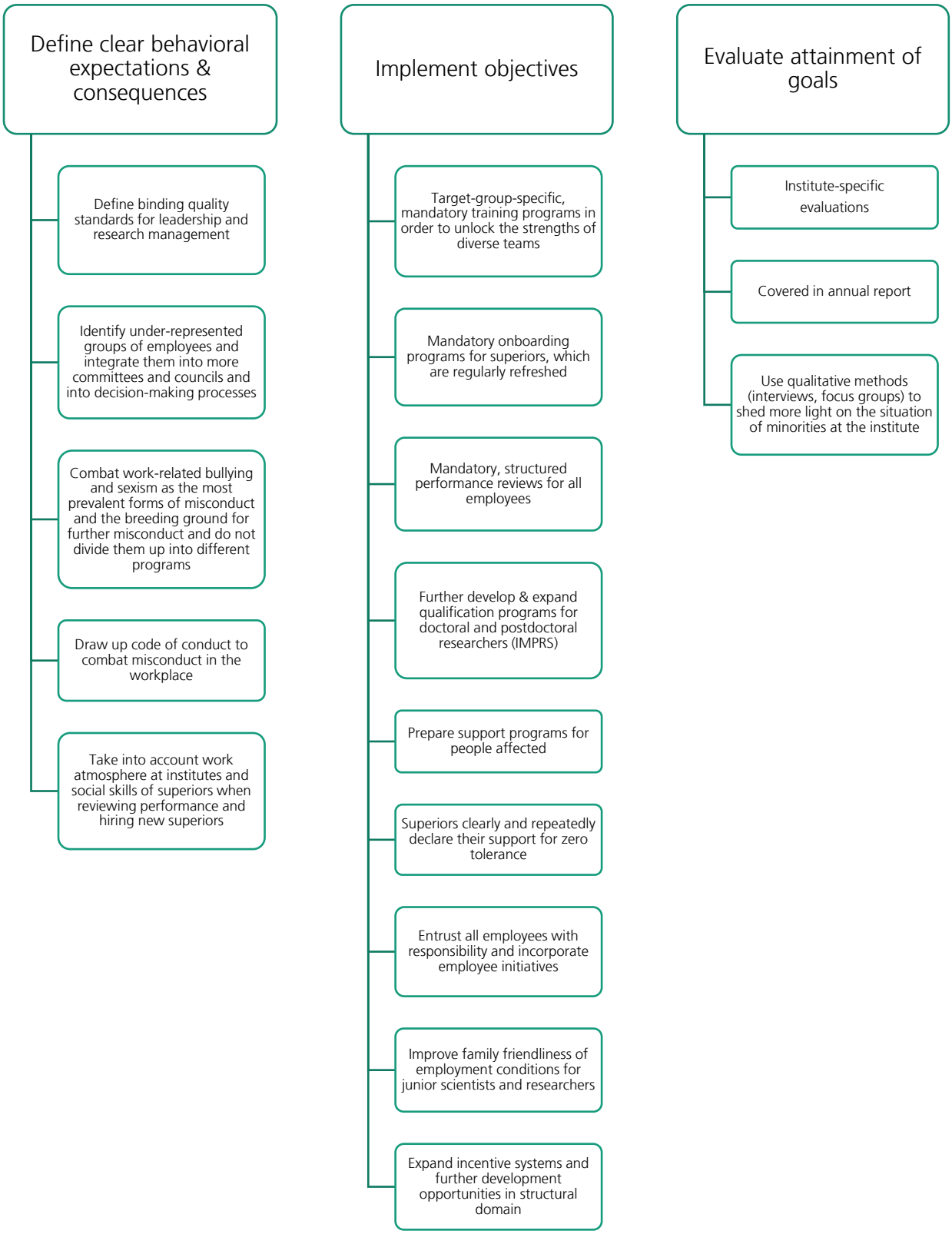

Figure 3: Building blocks of a coherent and comprehensive program for combating misconduct in the workplace.

Work atmosphere and work culture – Findings

Work atmosphere encompasses an organization's formal and informal rules, practices, procedures and routines, as perceived by its employees. Work culture, on the other hand, refers to the pattern of basic assumptions about how a given organization functions and should function, from the point of view of its employees (Ostroff et al., 2012). Work atmosphere is thus more directly observable than work culture, and can to a large extent be seen as resulting from the latter.

With the basis of the conducted survey being the intersection of work culture and work atmosphere, the analysis does not rely on an attempted differentiation between these two socio-scientific phenomena. For the purposes of evaluating work culture and atmosphere, information was sought on each respondent's group in terms of shared vision, collegiality (participative safety), quality orientation and support in the development of innovations. Furthermore, respondents were asked to assess the extent to which their immediate scientific superiors are employee-oriented, change-oriented and/or rule-oriented, and the extent to which they further their subordinates' career development. In addition, information was gathered on organizational commitment, perceived work-life balance, and equality of opportunity.

The main findings with respect to work culture and atmosphere are highlighted below. To this end, all answers by the different status groups (directors and group leaders, postdoctoral researchers, doctoral researchers, other scientific staff) were each evaluated in terms of their deviation from the average of all respondents. The same procedure was followed with respect to age, gender, the distinction between scientific and non-scientific staff and a range of further characteristics. The individual group characteristics are strongly related in some cases (e.g. age and hierarchical position), which was taken into account in the interpretations described in the main text.

Table 2 illustrates the correlation between section affiliation and employment type with gender and nationality. It reveals how the Biology & Medicine Section, the Human Sciences Section and the other facilities have a much higher proportion of women than the Chemistry, Physics and Technology Section. Non-German scientists and researchers, by contrast, are distributed evenly across all sections and are under-represented in the other facilities. In turn, the non-scientific staff has a significantly higher proportion of women and Germans than the scientific staff.

On account of these numerous interdependencies between the socio-demographic characteristics collected, the evaluations of the data contained redundancies in many places, and therefore **only relationships and correlations that are statistically significant and also seemed relevant are described** in the main body of the text. The individual diagrams of the report show the answer distribution of all respondents broken down by an independent variable with particularly clear and statistically significant correlations – e.g. by work role or by gender.

Table 2: Correlation between section affiliation and employment type with gender and nationality

		Section				Employment type	
		Biology & Medicine Section	Chemistry, Physics and Technology Section	Human Sciences Section	Other facilities	Non-scientific staff	Scientific staff
Gender	Female	53.1%	31.5%	56.4%	55.0%	49.9%	34.3%
	Male	36.7%	60.2%	37.1%	41.2%	37.8%	59.1%
	Not specified / various	10.3%	8.3%	6.5%	3.8%	12.3%	6.6%
Nationality	German	73.3%	73.5%	72.6%	91.5%	95.5%	57.2%
	Other EU country	13.9%	13.8%	11.3%	3.5%	1.5%	22.8%
	Non-EU country	12.8%	12.7%	16.1%	5.0%	3.0%	20.0%

The work culture in three words

As part of the qualitative interviews, the 40 interviewees were asked to sum up the work culture at their institute in three key words. Similar words were grouped together in Figure 4. The size of the words reflect the frequency with which they were named. Although the resulting graphic is not statistically representative, it gives an initial insight into the work culture at the Max Planck Society, which is then explored in greater detail below. Employees from all hierarchy levels, sections, domains and age groups particularly praise the openness and the good interaction and exchange with their coworkers. They experience the work atmosphere as international and collegial and cooperative, but also self-organized. While some respondents experienced flat organizational structures, others perceived the work culture at their institute as hierarchical.

Figure 4: Employees without experience of bullying: "Please sum up the work culture at your institute in three key words."

For the purposes of the diagram, similar terms used to describe work culture in the qualitative interviews were grouped together. The size of the word indicates how frequently it was named. To be included, a description must have been named at least twice.

n = 24.

Figure 5 visualizes the key words that the interviewees who had been affected by bullying and/or sexual discrimination used to describe the work culture. The words "scientific," "strong hierarchies" and "abuse of power" were cited particularly often. Although Figure 5 is not statistically representative either, it gives an insight into how direct experiences of or even just purely observing social misconduct in the workplace can cloud the subjective picture of the organization, the sense of organizational affinity and the group atmosphere.

Figure 5: Employees with distinct experiences of bullying were asked: "Please sum up the work culture at your institute in three key words."

For the purposes of the diagram, similar terms used to describe work culture in the qualitative interviews were grouped together. The size of the word indicates how frequently it was named. To be included, a description must have been named at least once. The results are not representative.

n = 9.

Group atmosphere

Shared vision of group

To investigate the "shared vision of the group," the views of the respondents were collected as to how clear, amenable to consensus, attainable and valuable the goals of their own group were (Anderson and West, 1998). Most respondents report a well-developed shared understanding of common objectives in their respective groups (Figure 6). Three-quarters of scientific employees indicated that they were very or completely clear on their group's objectives (77.6%) and in agreement with these objectives. There were no differences here to non-scientific employees. However, employees in the structural domain indicated somewhat more often that their group's objectives were important for their facility (85.4% vs. 78.7%, Table A 1).1 This discrepancy can be attributed to generally high differences in perception between the individual scientific hierarchy levels. Accordingly, directors and research group leaders tend to agree more strongly with statements describing a strong shared vision than doctoral candidates and postdoctoral researchers (on average 93.8% as opposed to 72.9% and 75.4%, respectively, Table A 2). Other scientific staff took an intermediate view. Affirmation of a shared vision among that group was 83.9% on average.

"[…] I have this feeling that there is kind of like this mission of working towards a common goal, right, from very different perspectives, but ultimately to tackle aging and get, you know, people to age more healthy. […] I feel like there is a lot of ambitious people in this place."

Quote 4: Doctoral researcher.

Routinization of shared vision

Routinization is also discernible: The longer non-scientific staff exercise their role, the less on average they answer in the affirmative to the individual questions on shared vision. Approval is highest among non-scientific staff who have been employed for less than a year (89.0%) and lowest among those who have been employed for more than four years (80.6%, Table A 3). Among scientific staff, this connection is somewhat harder to discern. Scientific personnel consistently gave affirmative answers to the questions on shared vision across all employment durations. Among other scientific personnel, there is a slightly significant statistical correlation showing that affirmation of the shared vision increases with employment duration (from 71.8% to 84.2%, Table A 4). In the case of doctoral and postdoctoral researchers, conversely, affirmation of the shared vision decreases with employment duration. Whereas for instance 85.6% of doctoral researchers in their first year, such as the one quoted above, said they agree very much or completely with the statements on shared vision (Quote 4), this percentage falls to 72.1% for students who have been there for between one and four years, and falls further to only 64.9% after four years.

[1] Slight differences in the percentage figures are attributable to different case numbers in the respective independent variables. This is due for instance to the fact that when evaluating non-scientific and scientific employees, those persons who indicated that they belonged to both categories were not factored in.

Group atmosphere: Vision

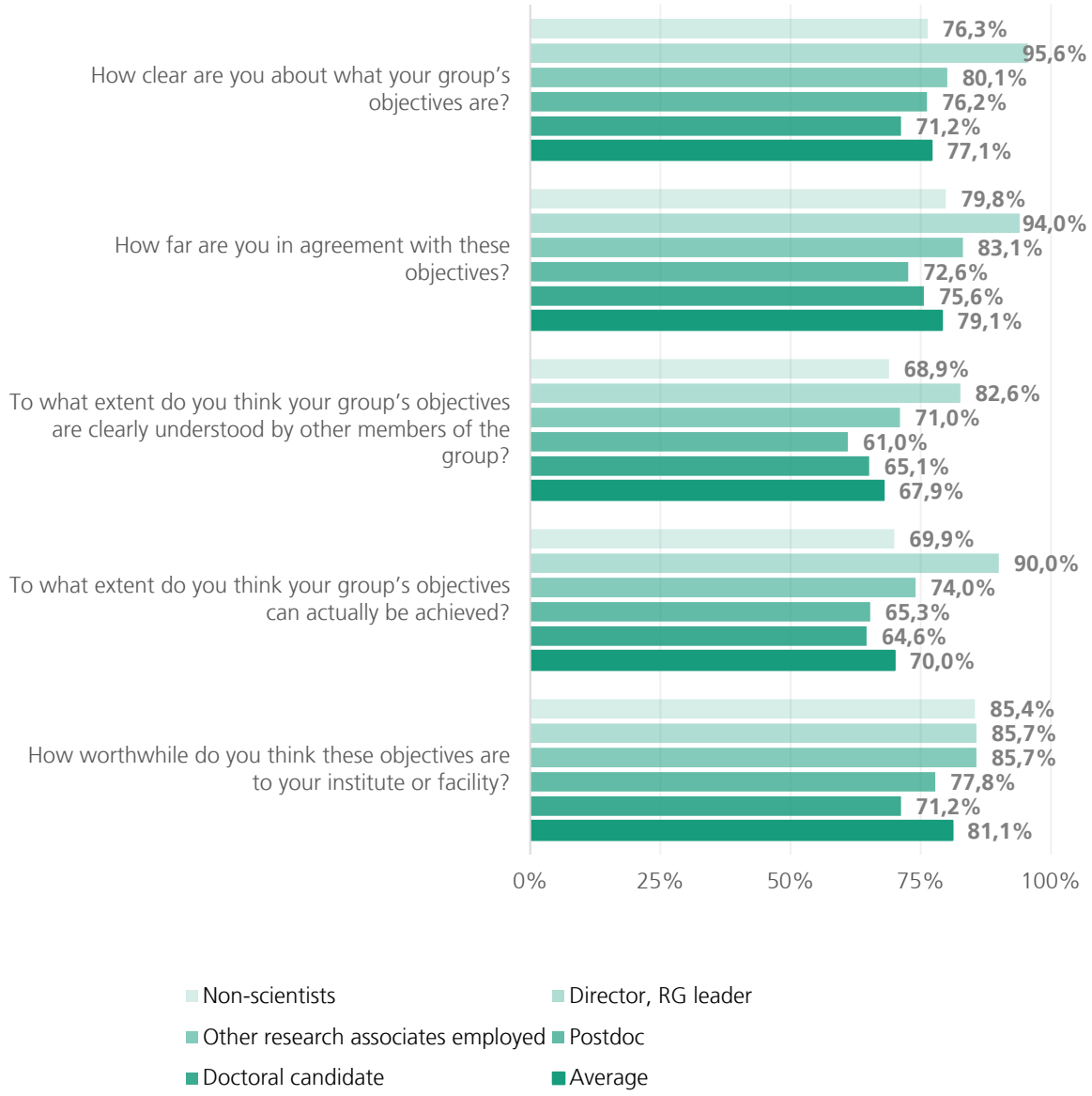

Figure 6: Response behavior of surveyed Max Planck Society employees, broken down by scientific positions, about the shared vision of their group.

A "group" is defined as the work unit to which a given respondent has been assigned for a longer period of time, and with whom they regularly cooperate in performing work-related tasks. In cases where respondents belong to more than one group, they were asked to think of the group with which they identify the most.

Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Completely". n(max.) = 5,548; n(min.) = 5,276. All correlations are statistically significant at the level $p \leq 0.01$.

Task orientation of group

The task orientation of the group designates the general commitment of the group to excellence in task performance – through critical reflection on their job and work results and building reciprocally on the ideas of team members (Anderson and West, 1998). On average, 57.6% of all employees responded affirmatively to the questions about the task orientation of their group. Figure shows a perception gap between scientific superiors and all other employees of the Max Planck Society. Whereas 79.9% of directors and research group leaders, for example, answered in the affirmative to whether the group tries to identify and address its own flaws and shortcomings, so as to become more effective in what it does, only 48.8% of postdoctoral researchers agreed (Table A 7).

The difference in perceived task orientation between superiors and doctoral researchers or postdoctoral researchers could also be caused by the fact that junior scientists and researchers often produce their qualification dissertation in solitary effort focused on their own personal ends. However, this hypothesis would tend to be contradicted by the fact that non-scientific employees (56.9%) and other research associates employed (60.6%) also perceive lower task orientation in their groups than superiors do (Table A 5, Table A 6).

Rather, the results point to a pronounced hierarchy orientation within the Max Planck Society, as illustrated by Quote 5. Whereas superiors experience the cooperation in their group as characterized by constructive criticism, large sections of the employees judge the situation differently. 18.2% of doctoral researchers and 25.5% of postdoctoral researchers thought that the group either rarely or never discussed potential critical flaws and shortcomings in their work (Table A 7). Only 4.7% of superiors held this view.

"As I said, it's not like there are no hierarchies here [...] for example, the directors are high up in the hierarchy and the managing director is a level higher again than a normal director. So the managing director is effectively like a god. What he says, goes."

Quote 5: Administrative employee.

Group atmosphere: Task orientation

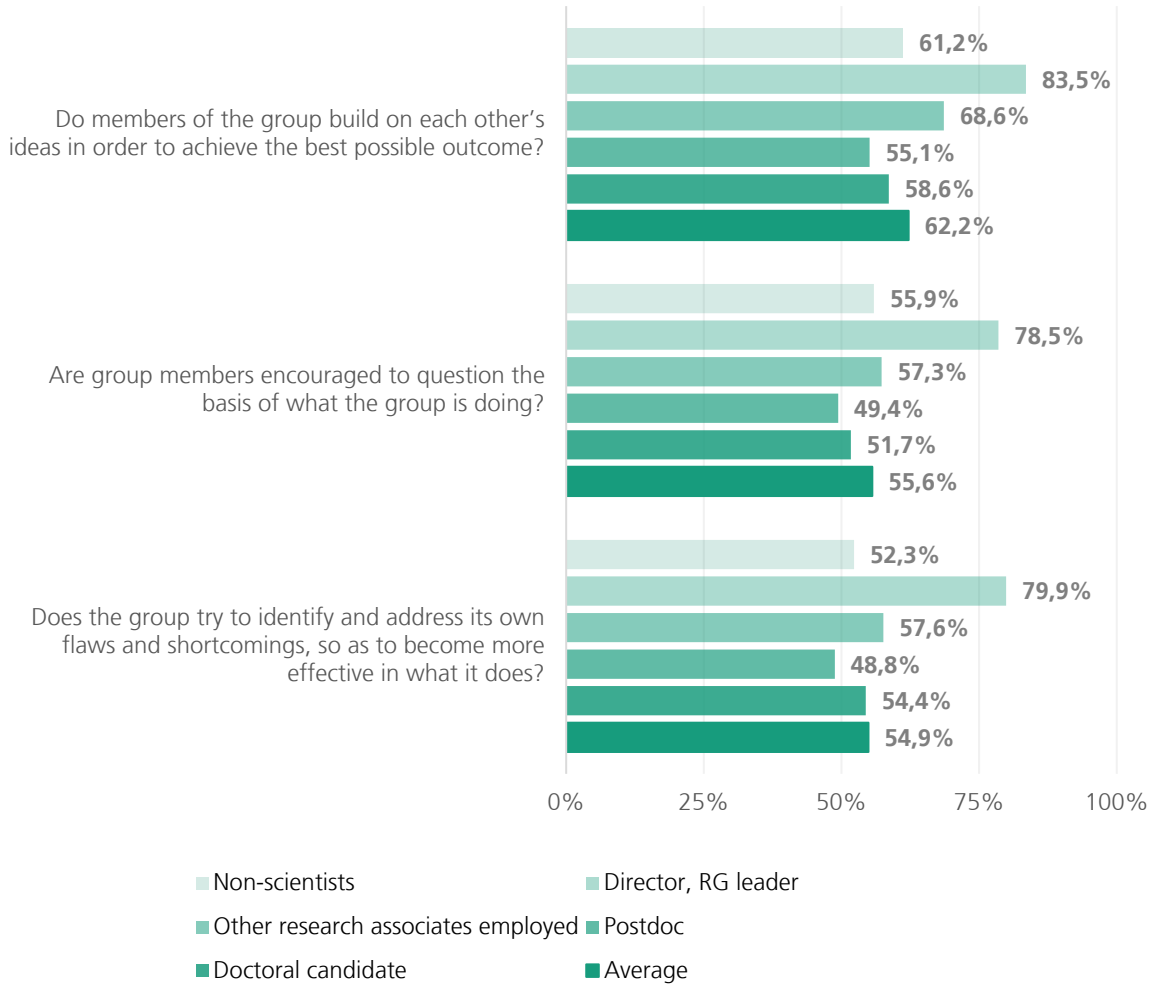

Figure 7: Response behavior of surveyed Max Planck Society employees, broken down by scientific positions, about the task orientation of their group.
A "group" is defined as the work unit to which a given respondent has been assigned for a longer period of time, and with whom they regularly cooperate in performing work-related tasks. In cases where respondents belong to more than one group, they were asked to think of the group with which they identify the most.
Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Completely". n(max.) = 5,411; n(min.) = 5,328. All correlations are statistically significant at the level $p \leq 0.01$.

Evaluation of task orientation by section

The evaluation of task orientation differs according to the individual sections (Table A 8). On average, 61.4% of respondents in CPTS answered affirmatively to the individual questions compared to 55.7% in BMS, 51.7% in GSHS and 52.8% in the other domains. One likely reason for the difference is that collective work is generally less prevalent in GSHS than in the other sections. Differences are particularly apparent for the question as to whether group members are encouraged to question the basis of what the group is doing (Table A 9). To this question, 59.2% of respondents in CPTS answered affirmatively compared to 52.9% in BMS, 48.2% in GSHS and 53.9% in the other domains.

Participative safety of group members

The participative safety of a group describes the active participation of group members in common processes in an atmosphere of mutual trust and support (Anderson and West, 1998). On average, three-quarters of employees (75.4%, Table A 10) agree with the individual statements about participative safety in their group. Once again, however, there is a perception gap between scientific superiors and other research associates employed (Figure 8). Whereas, for example, 91.8% of directors and research group leaders agree with the statement that everyone's opinion is listened to in the group, only 67.7% of postdoctoral researchers agree (Table A 11).

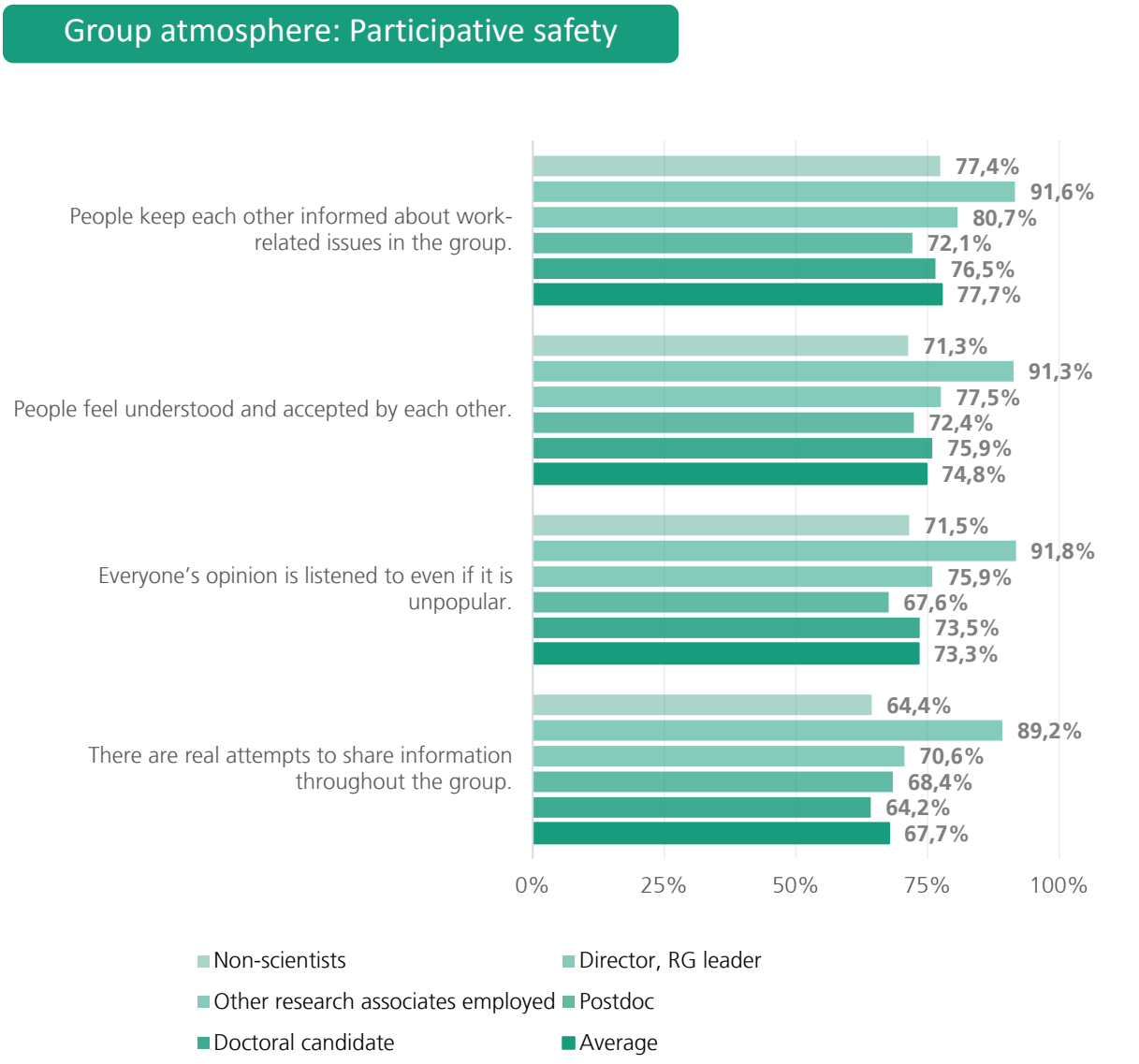

Figure 8: Response behavior of surveyed Max Planck Society employees, broken down by scientific positions, about the participative safety in their group.

A "group" is defined as the work unit to which a given respondent has been assigned for a longer period of time, and with whom they regularly cooperate in performing work-related tasks. In cases where respondents belong to more than one group, they were asked to think of the group with which they identify the most.

Percentages represent the proportion of respondents who answered the relevant questions with "Agree" or "Strongly agree".

n(max.) = 5,553; n(min.) = 5,473. All correlations are statistically significant at the level $p \leq 0.01$.

Evaluation of participative safety by gender und employment duration

Female employees indicate less often than their male counterparts to a statistically significant extent that group members feel understood and accepted by each other (72.0% vs. 77.4%, Table A 12), make real attempts to share information throughout the group (66.4% vs. 69.8%, Table A 13) and that everyone's opinion is listened to even if it is unpopular (70.1% vs. 76.0%, Table A 14). Similarly, non-scientific employees are less often of the view than their scientific counterparts that group members feel understood and accepted by each other (71.3% vs. 77.3%, Table A 15) and that there are real attempts to share information throughout the group (64.4% vs. 69.9%, Table A 16). Quote 6 shows a positive example of open culture and cooperation between scientific and non-scientific staff.

"By the same token, there seems to be an open-door policy, where you can just approach somebody and are not thinking: Gosh, I've got to make an appointment first and ask whether I could possibly knock on the door sometime to ask whether we could perhaps make an appointment. In collaborations and interactions with scientists and researchers and administrative staff, I've always had a positive feeling that things work smoothly."

Quote 6: Administrative employee.

As was the case for the shared vision of the group, we can also see the effects of routinization in the area of participative safety, which affect non-scientific staff and doctoral and postdoctoral researchers in particular. Whereas 88.9% of doctoral researchers and 83.3% of postdoctoral researchers in their first year answered affirmatively to the individual statements about participative safety, after four years this proportion drops to 70.7% for doctoral researchers and to 66.7% for postdoctoral researchers (Table A 17, Table A 18).

Innovation orientation of group

The innovation orientation of a group refers to the expectation and approval of and practical support for work on new ideas and approaches (Anderson and West, 1998). On average, two-thirds of scientific employees agreed with the individual statements in Figure 9(66.7%, Table A 19). Although agreement with the statements about the innovation orientation of the group among non-scientific staff is lower by a statistically significant margin at 59.2%, the difference is nonetheless perhaps surprisingly low.

Again, we see a perception gap according to hierarchy level. Whereas almost all scientific superiors – on average, 87.6% – responded positively to the individual statements about innovation orientation, the equivalent figure was 61.5% for doctoral researchers, 62.1% for postdoctoral researchers and 68.7% among other research associates employed (Table A 20). On average, the innovation orientation of the group was rated most positively in the CPTS section. Two-thirds of CPTS employees (66.7%) agreed with the individual statements as opposed to 60.1% in BMS, 59.3% in GSHS and 53.4% in the other domains (Table A 21).

Group atmosphere: Innovation orientation

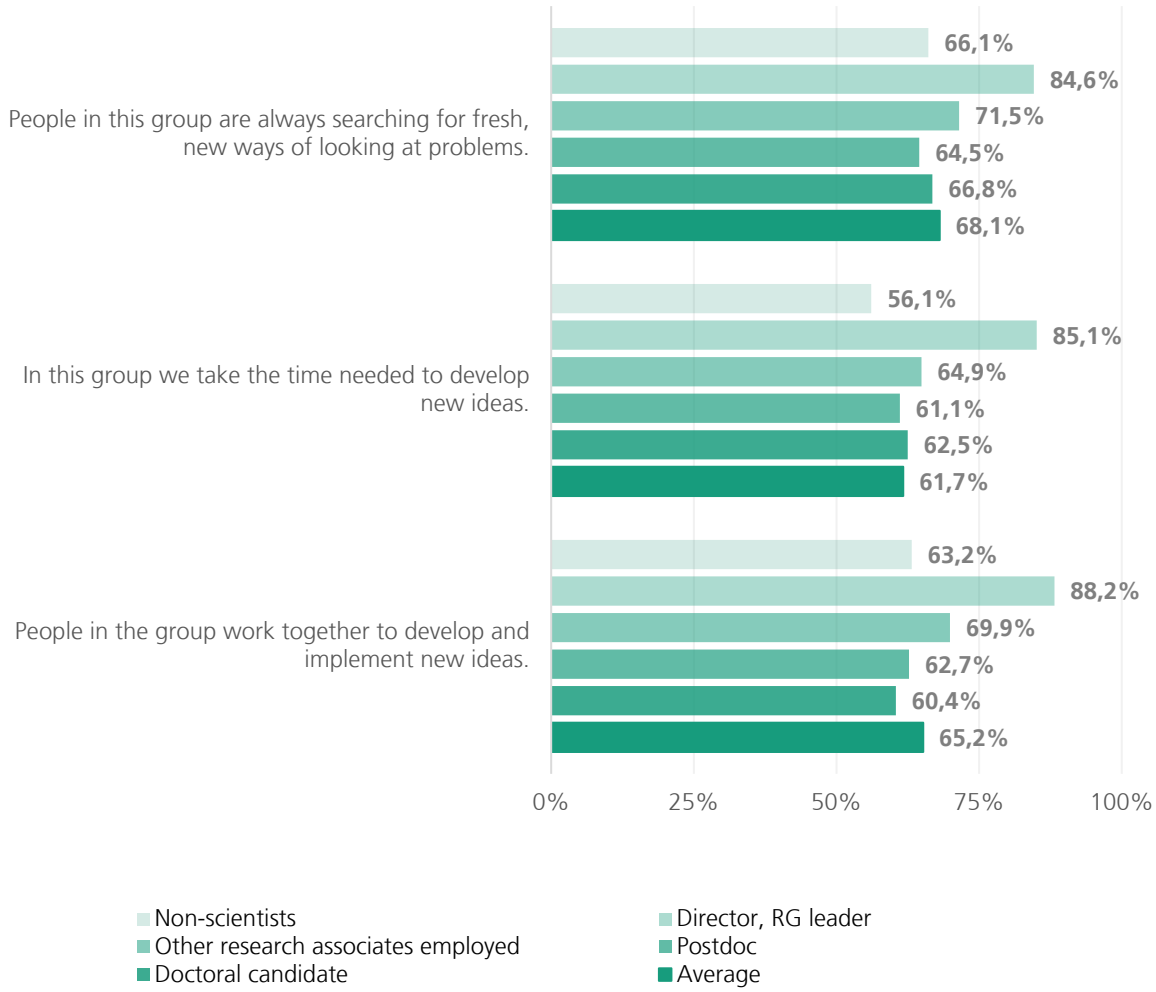

Figure 9: Response behavior of surveyed Max Planck Society employees, broken down by scientific positions, about the innovation orientation of their group.

A "group" is defined as the work unit to which a given respondent has been assigned for a longer period of time, and with whom they regularly cooperate in performing work-related tasks. In cases where respondents belong to more than one group, they were asked to think of the group with which they identify the most.

Percentages represent the proportion of respondents who answered the relevant questions with "Agree" or "Strongly agree".

n(max.) = 5,441; n(min.) = 5,381. All correlations are statistically significant at the level $p \leq 0.01$.

Leadership culture

Employee orientation of superiors

"But precisely in IT we often have the feeling – I guess it's the Baden-Wuerttemberg way – that silence is praise enough. So long as people don't notice that IT is there, then everything's hunky-dory. [...] In that sense, there's nothing to praise, only to criticize, because we're not noticed when all is well."

Quote 7: Technical & IT employee.

The employee orientation of scientific superiors refers to the evaluation of respondents regarding the extent to which their superiors value the work of employees and value them as people (Fjell et al., 2007). A majority of employees evaluated the employee orientation of their immediate superior as positive. On average, 80.8% of employees agreed or strongly agreed with the individual statements. Non-scientific staff were somewhat more critical than scientific staff (77.8% vs. 83.0%, Table A 22) and affirmed much less often in particular, as illustrated by Quote 7 that their superior respects their subordinates (Figure 10).

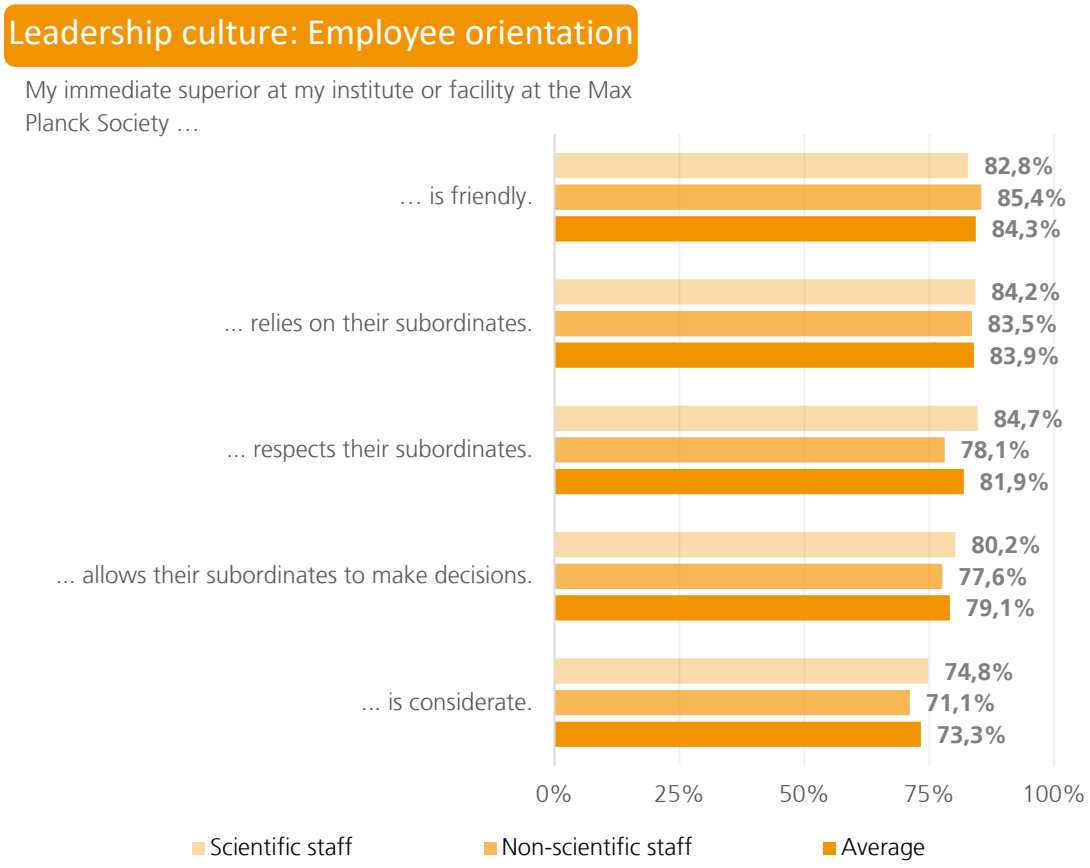

Figure 10: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about the employee orientation of their immediate superior.
The immediate superior is defined as the person who regularly gives the respondent instructions, e.g. the principal investigator, the group leader or the head of department.
Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Strongly agree".
n(max.) = 6,013; n(min.) = 5,978. All correlations are statistically significant at the level $p \leq 0.01$.

Evaluation of employee orientation according to age and employment duration

As employees get older, they get more critical: For all the statements listed in Figure 10, the agreement of the youngest age group from 15 to 29 years old (the apprentices at the Max Planck Society were included in the survey) was around ten percentage points higher than the agreement of age group from 45 to 59 years old (86.7% vs. 76.8%, Table A 23). Once again, we can also see evidence of routinization. The longer non-scientific employees, doctoral researchers and postdoctoral researchers work for the Max Planck Society, the less they tend to agree with the individual statements about employee orientation. For example, 94.2% of doctoral researchers in their first year felt that their superior respected their subordinates, but after four years only 68.0% held this view (Table A 24, Table A 25).

Change orientation of superiors

To evaluate the change orientation of scientific superiors, employees were asked to rate to what extent their superiors act in a creative and visionary manner and are willing to take risks (Fjell et al., 2007). Whereas on average 70.7% of employees agree with the individual statements about change orientation, differences exist between scientific and non-scientific personnel (76.2% vs. 62.9%, Table A 26). The biggest difference is revealed in the statement whether superiors initiate new projects, which 82.4% of scientists and researchers answered affirmatively compared to 69.0% of employees in the structural domain (Figure 11, Table A 27).

Digging deeper into the figures, we see that administrative employees attest more rarely to a statistically significant degree that their superiors initiate new projects and experiment with new ways of doing things than the employees in Technical & IT and in other services (… initiates new projects: 62.1% administrative, 70.4% IT, 72.3% other, Table A 28; … experiments with new ways of doing things: 51.8% administrative, 58.1% IT, 59.0% other, Table A 29).

Evaluation of change orientation according to employment duration

Routinization is also apparent in the change orientation of scientific superiors; and excepting the superiors themselves, we see that routinization affects scientific and non-scientific staff equally (Table A 30, Table A 31). Whereas 89.6% of doctoral researchers in their first year affirmed that their superior "sees possibilities rather than problems," the agreement falls in the time range between one and four years to 77.5% and drops further to 65.7% thereafter (Table A 32).

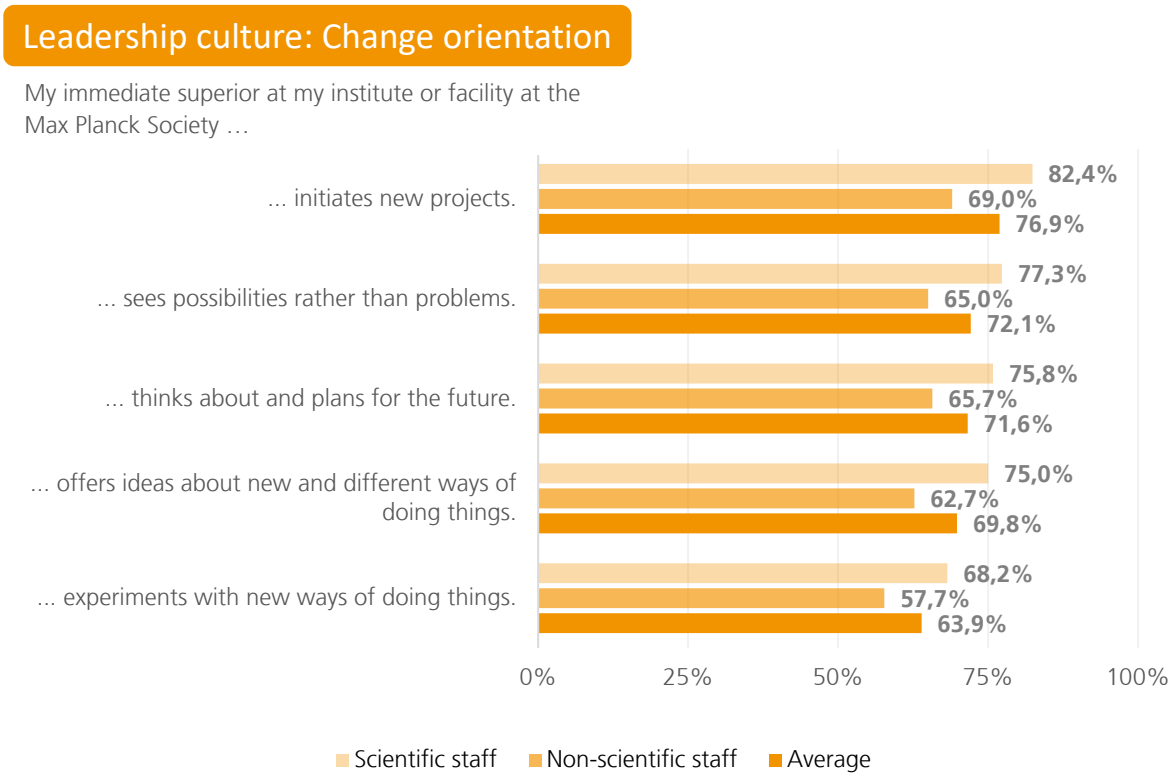

Figure 11: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about the change orientation of their immediate superior.
The immediate superior is defined as the person who regularly gives the respondent instructions, e.g. the principal investigator, the group leader or the head of department.
Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Strongly agree".
n(max.) = 5,922; n(min.) = 5,749. All correlations are significant at the level $p \leq 0.01$.

Rule orientation of superiors

The rule orientation of superiors measures to what extent they try to solve problems within a clearly defined framework and how much importance they attach to this framework. On average, 41.9% of respondents agreed with the individual statements, with non-scientific employees more likely to agree at 46.4% than scientific employees at 38.7% (Table A 33). In particular, the statement that superiors are very rigid and exacting about plans being followed showed up differences, with 45.9% of non-scientific employees agreeing compared to 31.4% of scientific employees (Figure 12, Table A 34). A notable statistic is that only 49.2% of employees on average felt that their superior gave them clear instructions (Table A 35).

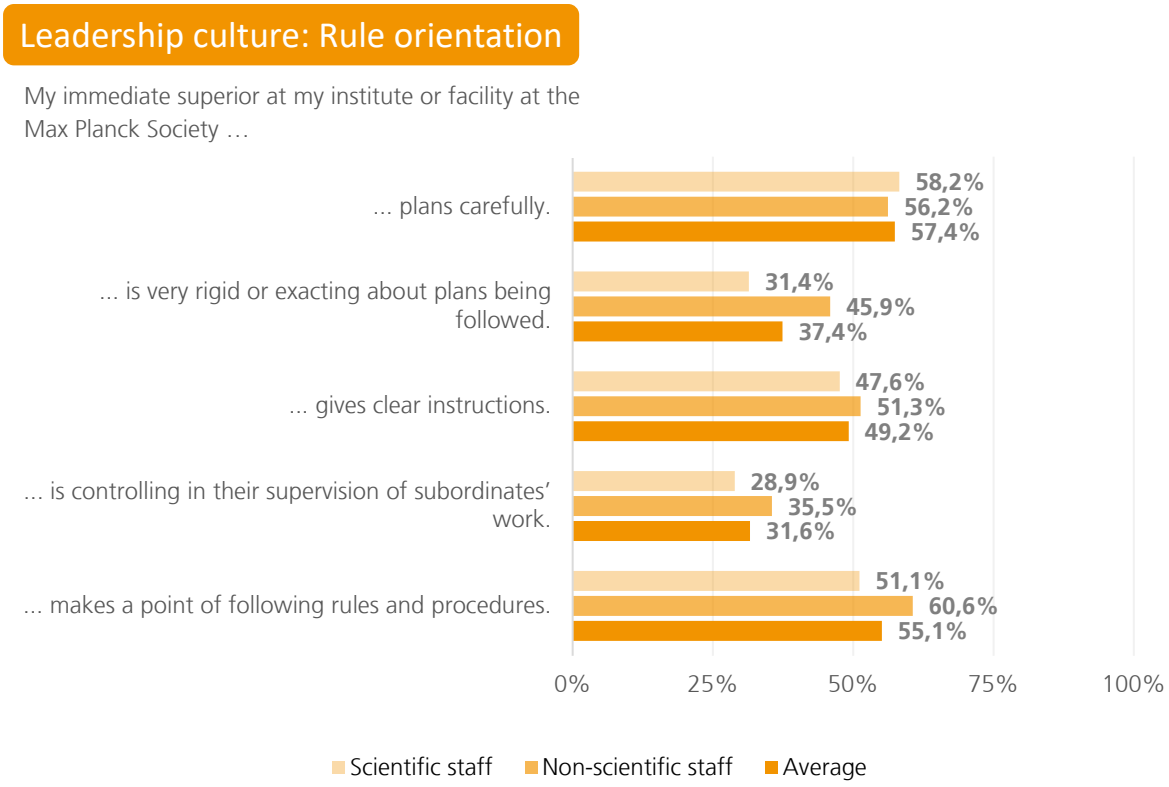

Figure 12: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about the rule orientation of their immediate superior.
The immediate superior is defined as the person who regularly gives the respondent instructions, e.g. the principal investigator, the group leader or the head of department.
Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Strongly agree".
n(max.) = 5,935; n(min.) = 5,791. All correlations are statistically significant at the level $p \leq 0.01$.

Evaluation of rule orientation according to position, employment duration and nationality

In addition, there are statistically significant differences between the individual scientific positions across all the statements. For example, 68.0% of scientific superiors (presumably research group leaders) indicated that their superior plans carefully. This view was shared by 61.2% of other research associates employed, 57.3% of postdoctoral researchers and 52.3% of doctoral researchers (Table A 36).

Again, we can see evidence of routinization in relation to non-scientific staff and all scientific staff. Whereas the agreement of doctoral researchers in their first year is 45.0% on average, it subsequently falls to 33.7% and after four years it falls further to 29.6% (Table A 37, Table A 38). The nationality of scientific employees also has an influence on how they rate the rule orientation of their superior. On average, 36.9% of scientists and researchers with German citizenship and 35.5% of scientists and researchers from non-EU countries gave affirmative answers. By contrast, the average agreement of scientists and researchers from other EU countries was 47.2% (Table A 39).

Support for career development by superiors

Evaluation of career development and influence of gender

In an organization whose objectives include scientific training, career development with the help of one's immediate scientific superior plays a particularly important role. Accordingly, junior scientists and researchers should ideally be closely mentored by their immediate superiors. This mentoring relationship has a psychosocial dimension (e.g. mentor as role model or friend) on the one hand, and a career-related dimension (e.g. mentor as sponsor, coach or protector) on the other (Ragins and McFarlin, 1990). This survey focused exclusively on the latter.

In spite of the high level of importance the Max Planck Society attaches to the development and training of junior scientists and researchers, the relevant statements in the survey garnered somewhat mixed responses (Figure 13). Differences in responses can in part be explained by the different career paths of non-scientific and scientific personnel (average agreement of 35.0% vs. 49.4%, Table A 40). Nonetheless, even among the supposed main target group for career development, namely doctoral candidates and postdoctoral researchers, on average only one out of every two respondents agreed with the relevant statements (50.4% and 47.3% respectively, Table A 41). Female scientists and researchers were statistically significantly less likely to agree with statements regarding career development (an average of 45.0% vs. 52.6% among men, Table A 42). In particular, women were far less likely to agree that their superior uses their influence to advance the respondent's career (38.2% vs. 44.6% among men, Table A 43), and that they bring their subordinate into contact with people who can positively influence their career (42.9% vs. 49.4% among men, Table A 44).

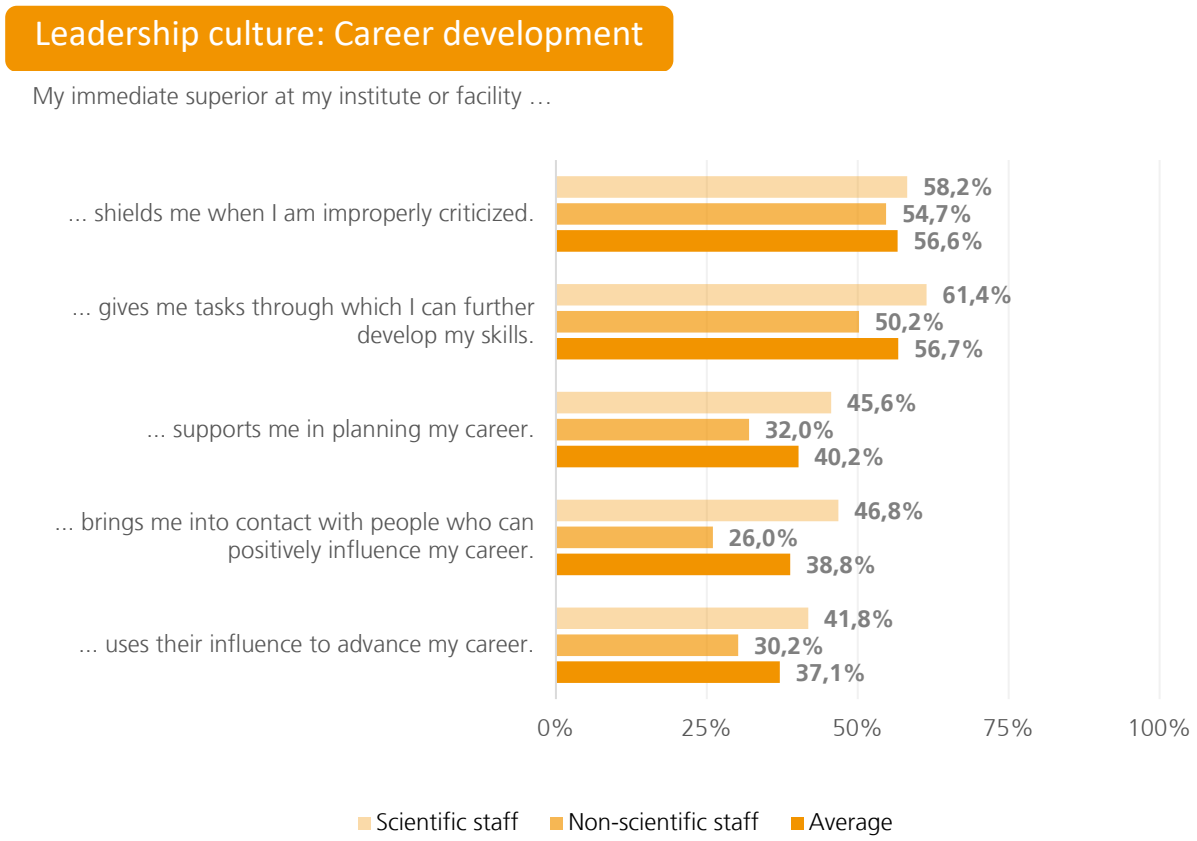

Figure 13: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about the support they receive from their immediate superior for their career development.
The immediate superior is defined as the person who regularly gives the respondent instructions, e.g. the principal investigator, the group leader or the head of department.
Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Completely". n(max.) = 4,759; n(min.) = 5,630. All correlations are statistically significant at the level $p \leq 0.01$.

Evaluation of career development according to employment duration

As expected, there was evidence of routinization once again for doctoral and postdoctoral researchers, but also for non-scientific personnel (Table A 45). The longer people are employed at the Max Planck Society, the more their satisfaction with the support received for their career development from scientific superiors declines. In the first year of their employment, 70.3% of doctoral researchers on average agree with the individual statements about career development (Table A 46). In the subsequent periods, when career development really matters, this approval drops to 49.6%, and after four years it has fallen to 38.8%. As such, Quote 8 appears to be in no way the norm for doctoral and postdoctoral researchers in the Max Planck Society.

"Well, it often happens that a tricky situation arises as a result of fixed-term contracts, which with the best will in the world, and as much as we might want to, simply cannot be extended in the current climate. And to the best of my knowledge, we've always managed to find a role for people somehow or other. [...] so here we wouldn't just put someone out on the street."

Quote 8: Research group leader.

Scientific employees from other EU countries are generally more satisfied with their career support than those with German or non-EU citizenship (53.9% vs. 48.5% vs. 47.8%, Table A 47). This divergence of views is most pronounced among postdoctoral researchers. Whereas 57.0% of EU postdoctoral researchers agree that their superior supports them in their career planning, only 45.9% of non-EU and 43.5% of German postdoctoral researchers agree (Table A 48).

In addition, there are differences between the individual sections. In CPTS, agreement with the individual statements about mentoring was 47.2% on average, whereas in BMS the figure was 38.8%, in GSHS it was 41.3%, and in the other domains it was 37.9% (Table A 49).

Personal meetings with superiors about career development

Influence and frequency of personal feedback meetings

Whether the respondents had had a personal meeting with their superior in the year 2018 proved to be one of the strongest indicators of a positive work culture and atmosphere. The question here referred to formalized meetings such as annual employee interviews or postdoc status meetings.

There is a difference between scientific and non-scientific employees as to whether such a meeting was held (Figure 14). Whereas three out of every four scientists and researchers (72.5%, Table A 50) had a personal conversation with their scientific superior about their work and future goals, the same was true of only two out of four employees in the structural domain (49.3%). When we look closer at the figures for scientists and researchers, we notice that 63.2% of other research associates employed had a one-to-one meeting, compared to three-quarters of doctoral researchers, postdoctoral researchers, directors and research group leaders (Table A 51). In the non-scientific domain, annual feedback meetings are more prevalent to a statistically significant extent in administration (58.7%, Table A 52) than in Technical and IT (54.2%) or in other services (46.0%).

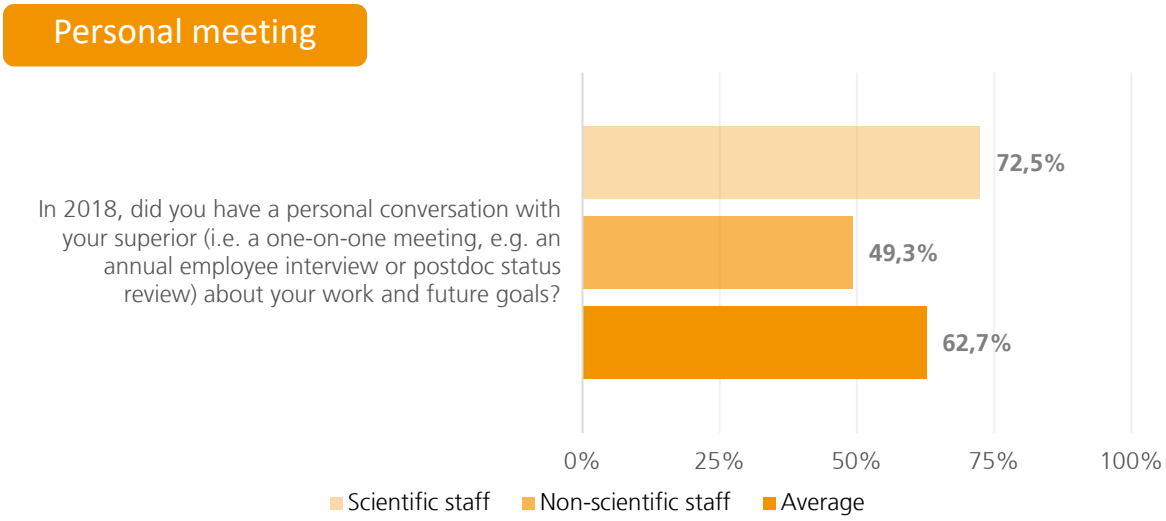

Figure 14: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about whether they had a personal meeting with their superior in 2018.
The immediate superior is defined as the person who regularly gives the respondent instructions, e.g. the principal investigator, the group leader or the head of department.
Percentages represent the proportion of respondents who answered the relevant questions with "Yes".
n = 5,386. Correlation is statistically significant at the level $p \leq 0.01$.

Personal feedback conversations by gender and nationality

Overall, women have one-to-one career-related meetings with their scientific superior less often than men (69% vs. 74.1%, Table A 53). This applies to both scientists and non-scientists. Furthermore, there are differences with regard to the nationality of scientists. 83.1% of scientific staff with EU citizenship indicated that they had had a one-to-one conversation with their superior about their work and goals (Table A 54), whereas 78.3% of non-EU scientists and researchers and 65.9% of German ones said the same. This difference between German and non-German employees is statistically significant for doctoral researchers, postdoctoral researchers and other research associates employed. Routinization is discernible once again. Whereas 72.2% of employees in the one-to-four year category indicated that they had had a career-related conversation with their superior, the figure is 58.4% for employees who had been at the Max Planck Society for longer (Table A 55).

Feedback conversations as an expression of a healthy work and leadership culture

Having a personal conversation with one's scientific superior correlates with various aspects of the work culture and atmosphere to a statistically significant extent. On average, 82.8% of people with an annual career meeting agreed with the statements about the shared vision of the group, while only 73.0% of those without an annual career meeting did likewise (Table A 56). With regard to task orientation, the approval was 62.5% compared to 44.2% (Table A 57). For participative safety, the corresponding figures are 79.2% (Table A 58) versus 65.4%, and for innovation support by the group, they are 67.2% (Table A 59) versus 50.1%. The employee orientation of superiors is also rated more positively (85.1% vs. 69.9%, Table A 60), as is their change orientation (77.3% vs. 53.8%, Table A 61) and rule orientation (47.2% vs. 32.7 Table A 62). The difference in the case of mentoring is particularly clear (53.5% vs. 22.5%, Table A 63). And the organizational commitment of people with annual career meetings is also higher (84.4% vs. 79.4%, Table A 64) and they experience all investigated forms of bullying less often to a statistically significant degree and they also indicate less often that they have been the victim of sexual harassment or discrimination to a statistically significant degree.

That said, the data does not allow us to conclude whether having a personal feedback conversation with one's superior is the cause of the observed correlations or merely a symptom of a healthy group and leadership culture.

Affinity with institute/facility

Evaluation of organizational commitment according to hierarchy levels

"[…] I feel very grateful about the Max-Planck-Society to give me this opportunity. So now I feel a big responsibility to make, you know, the Max-Planck-Society happy and proud that actually they gave me this possibility. So this is my, how to say, big thing now that I want to do that, I hope in the next years."

Quote 9: Director.

The questions concerning the respondents' affinity with their institute or facility were designed to measure their identification with and emotional involvement in the concerns of their own institute or facility (Maier and Woschée, 2014). The employees at the Max Planck Society show a high degree of commitment toward their institute or facility. They expressed particularly strongly agreement with the statements about their personal commitment to their facility (84.4%, Table A 65) and their pride in their facility (76.1%, Table A 66). Quote 9 is a good example of this. Typically, the statement that got the least approval was the one stating that the employee would be willing to accept any changes to their role just so they could continue working for their institute (23.8%, Table A 67).

There are considerable differences at times between the individual scientific positions (Figure 15). Scientific superiors gave the highest approval for almost all statements. Next by some margin are the other scientific positions. Two exceptions that buck this trend are the approval given by other research associates employed to the statement about willingness to put in a great deal of effort (90.2%, Table A 68), which very nearly matches that of superiors, and the willingness to accept any changes to their role, which is lower to a statistically significant extent only in the case of doctoral researchers (14.8%, Table A 69).

Overall, non-scientific staff express a similarly high degree of commitment as scientific staff. Differences can be seen in the higher agreement with the statement about willingness to put in a great deal of effort (86.0% vs. 82.1%, Table A 70), pride in one's institute/facility (73.7% vs. 78.3%, Table A 71) and willingness to accept changes to one's job or duties (27.8% vs. 19.9%, Table A 72). On the other hand, non-scientific employees more rarely feel that they are working in the best possible organization for them (39.4% vs. 46.1%, Table A 73) or that their institute or facility motivates and inspires them to do their very best work (52.6% vs. 62.8%, Table A 74).

Willingness to put in a great deal of effort beyond what is necessary, in order to contribute to the success of one's institute or facility, is dependent to a statistically significant extent on the age of respondents. Whereas among the 15-29 age cohort, 76.7% (Table A 75) agreed with the corresponding statement, the figure is 82.5% among the 30-44 age group, 90.7% among the 45-59 group and 92.0% among those 60 and over. Furthermore, the 45-59 and 60+ age groups are more often willing to accept changes in their work role than younger employees (27.8% vs. 20.1%, Table A 76).

Correspondent to the dependency of commitment on the respective position and age, employees with permanent contracts tended to answer affirmatively more often to the statement about being willing to put in a great deal of effort beyond what is necessary than employees with temporary contracts (88.9% vs. 79.7%, Table A 77). We can observe a similar correlation for employees with children, among whom a similarly high proportion (88.2% vs. 81.1%, Table A 78) indicated a willingness to put in a great deal of effort beyond what is necessary.

Affinity with institute/facility

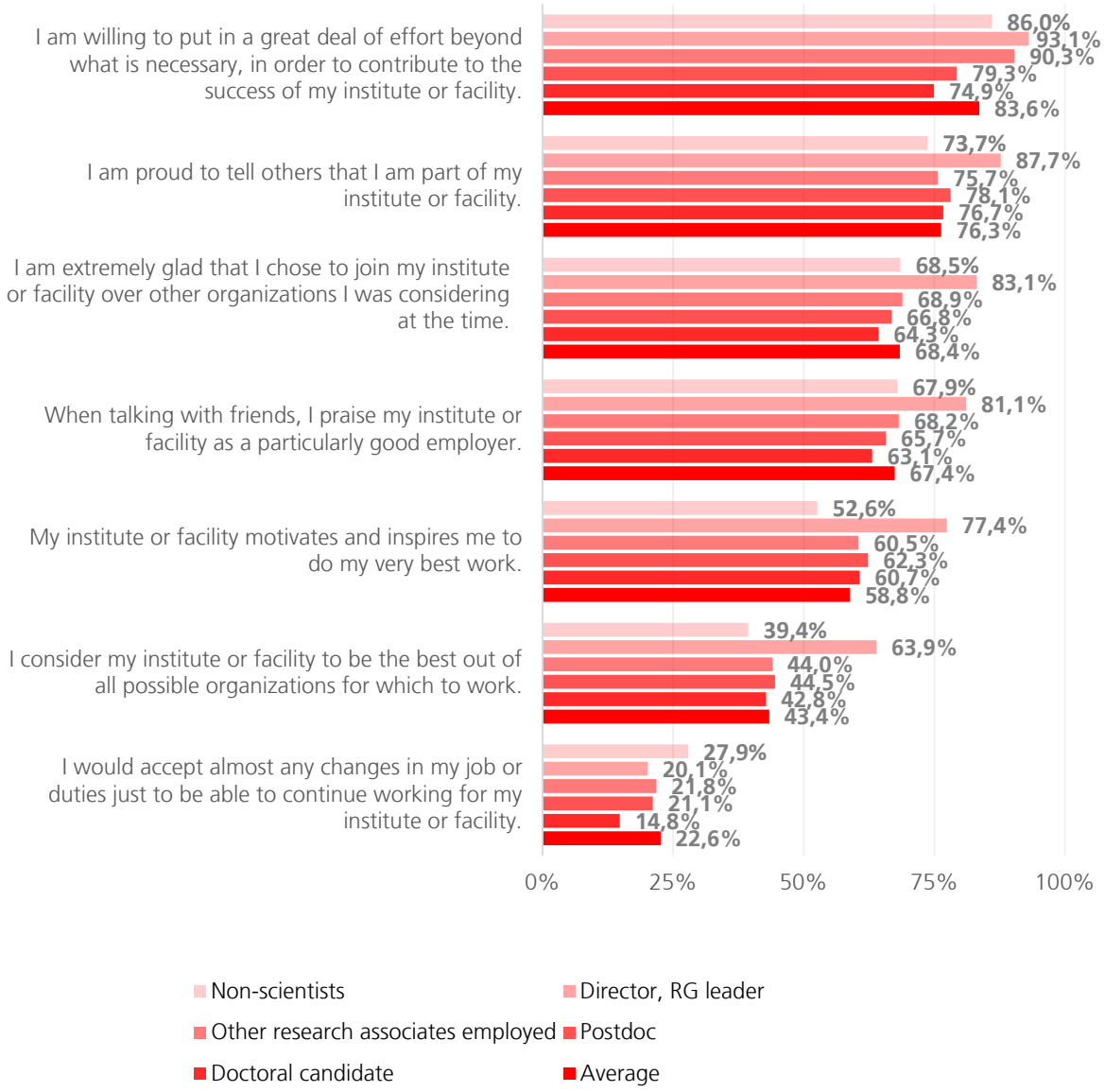

Figure 15: Response behavior of surveyed Max Planck Society employees, broken down by scientific positions, about their commitment to their institute or facility.
Percentages represent the proportion of respondents who answered the relevant questions with “Very” and “Strongly agree”.
n(max.) = 6,206; n(min.) = 5,910. All correlations are statistically significant at the level $p \leq 0.01$.

Evaluation of organizational commitment according to employment duration

With regard to affinity with one’s institute or facility, we can see various indications of routinization: The longer they are employed, other research associates increasingly agree with the statement that they are willing to put in a great deal of effort beyond what is necessary. In the first year, 81.4% agree, rising to 83.8% from 1-4 years and rising again to 91.6% after the fourth year (Table A 79). By contrast, in the case of doctoral researchers and postdoctoral researchers and non-scientific staff (Table A 80), the longer people are employed, the less they tend to agree with the statements that they praise the institute to their friends and that they are proud to tell others that they are part of it. Doctoral researchers and postdoctoral researchers in particular, but also once again non-scientific staff, are also less likely to agree as time goes

by with the statement that their institute motivates and inspires them to do their very best work. Only in the case of doctoral candidates is there a fall-off in agreement with the statements that they are willing to accept changes to their work role; that they are glad they had chosen the institute over other organizations; and that they consider their institute to be the best out of all possible organizations for which to work. Among non-scientific staff, there is a drop in the agreement with the statement that they are glad to have chosen their institute or facility over other organizations. The longer they are employed, the less often non-scientific staff agree with the statement that they praise their institute or facility as a good employer when talking to friends.

Work-life balance

Combining work and private life

Frequency of conflicts between work and private life

To evaluate work-life balance, respondents were asked how frequently over the past 12 months their work clashed with their private life and vice-versa. The answers revealed differences between scientific and non-scientific employees (Figure 16). Whereas one in every four non-scientific employee indicated that their private life suffered on account of their work at least once a month, one in two scientists and researchers said the same (22.9% vs. 47.3%, Table A 81). Moreover, one in every four scientists and researchers indicated that their private life had to take a back seat to their work duties every week or every day. Quote 10 is an example of the conflicts that can arise between work and private life among scientists and researchers. In addition, scientific staff indicated more often than non-scientific staff that they found it difficult to concentrate on their work on account of their private life (6.3% vs. 19.5%, Table A 82).

"[…] on account of the free supervision, or non-existent supervision, it was all extremely flexible. But the expectation was absolutely there that we had to be there at least ten hours a day – that was what our boss expected as a basic requirement. Sometimes he would even actually ring up people on their private phone at ten o'clock in the evening to ask them about their work. I also learned within the work group that the personal lives of my coworkers were increasingly suffering […]."

Quote 1: Doctoral researcher.

Work-life balance

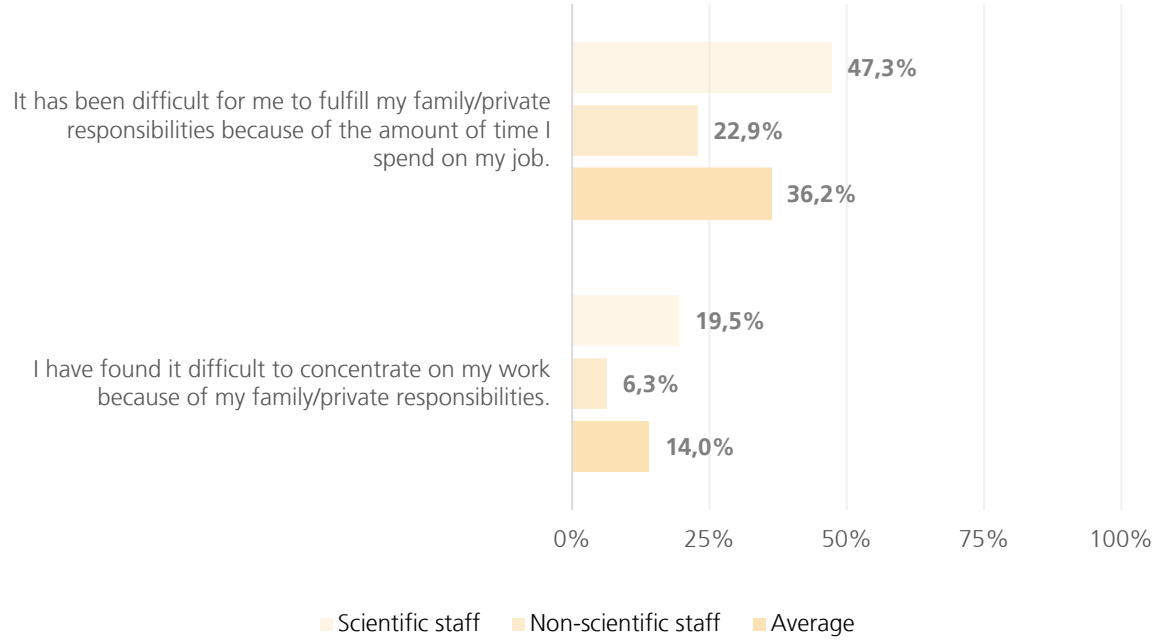

Figure 16: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about conflicts in work-life balance.

Percentages represent the proportion of respondents who answered with "Several times a month," "Several times a week" or "Daily".

n(max.) = 6,037; n(min.) = 5,991. All correlations are statistically significant at the level $p \leq 0.01$.

Whereas there are no gender-related correlations in the evaluation of work-life balance, there is a connection with the age of employees. Employees in the age ranges of 15-29 and 30-44 indicated more often that their work affected their private life (42.2% and 43.7% respectively, Table A 83). As employees get older, work-life balance conflicts become rarer. In the 45-59 age group, 28.6% of respondents said they had such conflicts, and in the 60+ age group, only 12.6%.

Significance of age for work-life balance

The correlation with age also overlaps with the responsibility for children. Employees without children indicate slightly more often than employees with children that their private life suffers on account of their work duties (39.3% vs. 33.1%, Table A 84). By the same token, employees with responsibility for looking after children under 18 years of age do not complain about encroachments on their private life than employees without children (39.1% vs. 39.3%, Table A 85). A positive picture of flexibility options and work-life balance is expressed in Quote 11. On the other hand, parents of children under the age of 18 tend to agree more often with the statement that they find it hard to concentrate on their work on account of their private responsibilities, than employees without children (21.8% vs. 12.2%, Table A 86). Digging deeper into the figures, we see that

"So especially in the past few years, when I returned to work [...] I was able to discuss and coordinate everything to fit my needs. And that's generally the case in fact, with this part-time, including for others who have children or other needs. I think that things are very flexible on the whole here. That said, things have improved over time. In the past this was not the case."

Quote 11: Administrative employee.

the ability of parents with older children to concentrate on their work appears to be better, with only 3.9% answering the statement in the affirmative.

Between the individual scientific positions, there are hardly any differences in the evaluation of work-life balance. An exception is other research associates, who expressed below-average agreement with the statements that work was having a negative impact on their private life, and that their private life was having a negative impact on their work (35.6% vs. 47.9% (Table A 87) and 11.8% vs. 19.7% (Table 88)).

Career and children

Responsibility for looking after relatives or other people can significantly affect a person's career opportunities in an organization. Table 3 gives an overview of how the proportion of employees with children varies across the different age groups. While almost nobody (3.5%) in the 15-29 age bracket has children, 41.7% of the 40-44 age group do. In the 45-59 age group, 69.8% of employees have children. In the final age group, 60 and older, the proportion is 69.3%.

Table 3: Employees of the Max Planck Society, broken down by whether they have children or not. n = 7,269.

		Please indicate your age range.				Total
		15 - 29	30 - 44	45 - 59	60+	
Do you have children?	No (in %)	96.5%	58.3%	30.2%	30.7%	56.6%
	Yes (in %)	3.5%	41.7%	69.8%	69.3%	43.4%
Absolute		1632	2960	2244	433	7269
		100.0%	100.0%	100.0%	100.0%	100.0%

Although there are no statistically significant differences based on the gender of the respondents, there are based on employment type. Young non-scientific staff have children more often than young scientific staff. In the 15-29 age group, 6.9% of non-scientific personnel have children compared to 2.4% of scientific personnel. In the 30-44 age group, 50.6% of non-scientific personnel have children as opposed to 37.3% of scientific personnel. This differential balances out in the older age groups. In the 45-59 age group, 67.3% of non-scientific personnel have children compared to 72.7% of scientific personnel. And in the 60+ age group, 65.4% of non-scientific personnel have children compared to 73.9% of scientific personnel (Table A 89).

Support given by institute or facility

To be able to understand the effects of having children on careers in the Max Planck Society, we asked to what extent parents have/had experienced support from their institute or facility during pregnancy and for childcare. In addition, we asked whether respondents had experienced professional disadvantages at their workplace as a result of pregnancy, parental leave or childcare responsibilities and whether they had taken as much parental leave as they would have wanted.

"We ourselves – I mean, as regards the department and me personally – we're naturally very positive, that is, very supportive in these situations. […] We've at least three postdoc women here, and two men as well, who've now taken parental leave at various stages. It actually works very well, although of course they do miss out on a bit of time."

Quote 12: Director.

On average, one in every five employees (20.5%) indicated that they had experienced professional disadvantages at the institute as a result of pregnancy, parental leave or childcare responsibilities. Meanwhile, 59.0% of parents in total surveyed said they had received support. An example of an open and supportive attitude at management

level can be seen in Quote 12. Around one quarter of respondents who had taken parental leave at the Max Planck Society (28.8%) indicated that they had taken less leave than they had actually wanted so as to avoid incurring professional disadvantages.

Figure 17: Response behavior of Max Planck Society employees with children (and in the case of Statement3, with parental leave phase), broken down by gender and employment type, about problems in balancing children and career.
Percentages represent the proportion of respondents who answered the relevant questions with "Very" or "Strongly agree".
n(max.) = 994; n(min.) = 398. All correlations are statistically significant at the level $p \leq 0.01$.

Factors for experiencing professional disadvantages as a result of having children

Scientific and non-scientific staff give different answers to the questions about the impact on their career of having children. Whereas on average only 14.7% of non-scientific employees with children indicated that they had experienced professional disadvantages (Table A 90), the figure for scientists and researchers was 24.7%. Gender also has an influence. One in every four women indicated that they had experienced professional disadvantages compared to one in every seven men (27.4% vs. 14.7%, Table A 91). Figure 17 shows how the response behavior differs between male and female scientists and researchers with children. We see that 40.8% (Table A 92) of female scientists and researchers with children said that they had experienced professional disadvantages on account of their children as opposed to 17.5% of their male counterparts. Quote 13 illustrates one kind of disadvantage experienced by female scientific employees. In contrast, men and women who had taken parental leave at the Max Planck Society indicated with similar frequency that they had taken less leave than they would have liked (45.5% vs. 36.1%, Table A 93). In particular, two-thirds of non-German female postdoctoral candidates with children (66.8%, Table A 94) indicated that they had experienced professional disadvantages at their institute as a result of having children (compared to 43.4% of German female postdoctoral researchers).

"But I think the issue is around, so in our particular situation as postdocs, there is certainly a much bigger penalty for a woman to have children than there is for a men to have children. And I don't know how much of that you can blame on the Max-Planck-Institute. It's just the sense where you have a one- or two-year contract and you take extended parental leave, it seems to impact women more."

Quote 2: Postdoctoral candidate.

Equal opportunities

Distribution of career opportunities by gender

"As a woman, you just have work three of four times harder than a man. Men would always get the benefit of the doubt, you felt. As soon as a man would make a suggestion, it'd be approved right away, whereas when women made a suggestion, we'd have to fight for it for ages and bring all kinds of supporting evidence."

Quote 14: Doctoral researcher.

To evaluate equality of opportunities between the genders, the respondents were asked about their opinion as to whether the careers of women and men were supported equally or if they thought one gender was receiving an advantage. Two-thirds of respondents were of the opinion that equality of opportunities exists (64.6%, Table A 95). The proportion of respondents who felt that men were given an advantage (19.1%) is roughly the same as the proportion who felt that women were being advantaged (16.3%). An example of an employee who thinks women face an unfair disadvantage is cited in Quote 14.

Figure 18 depicts the response behavior of respondents based on gender. It shows that 25.8% of men think that they are disadvantaged in their careers, and that 30.6% of women think that they are the ones being disadvantaged (Table A 96). It makes a difference here whether a man has a scientific or a non-scientific position. Among scientists and researchers, one in every four men sees his fellow males as disadvantaged (28.5%, Table A 97), while one in five men in the structural domain feels the same (19.7%).

Equal opportunities

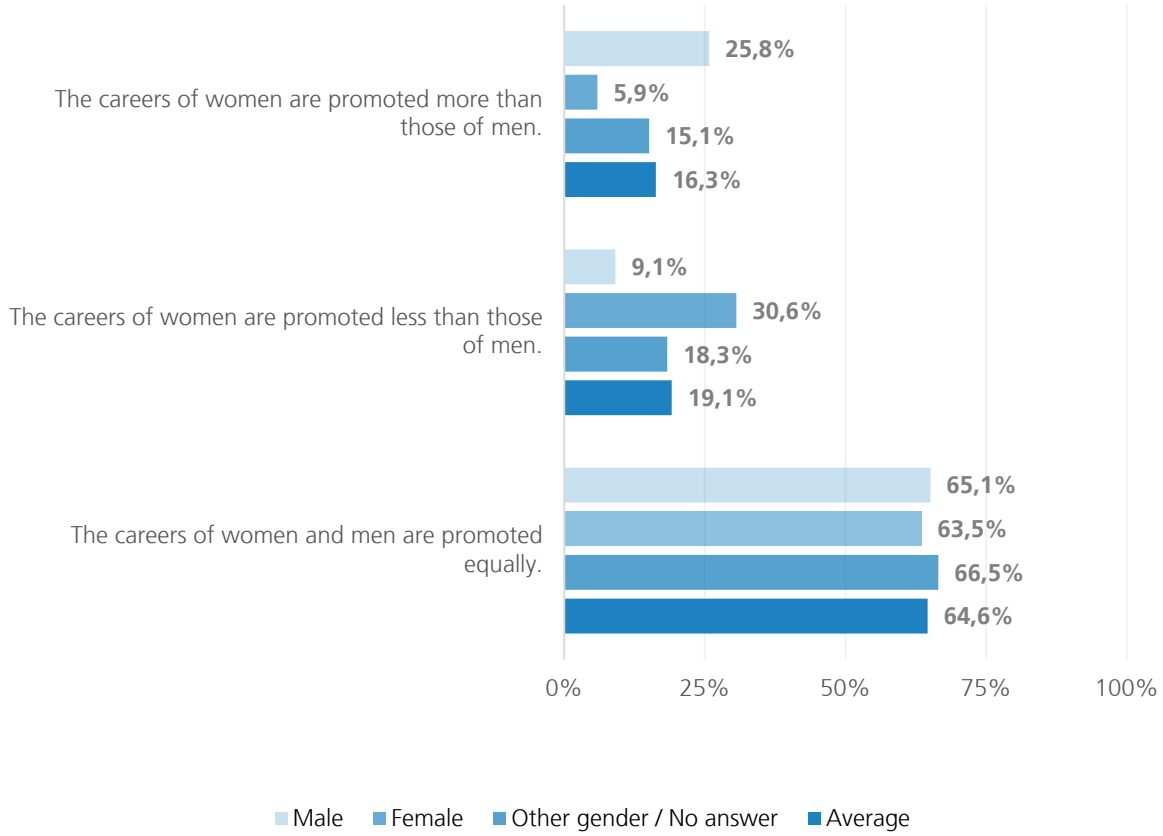

Figure 18: Response behavior of surveyed Max Planck Society employees, broken down by gender, about their opinion on equality of opportunities at their institute/facility.
Respondents were restricted to a single choice.
n = 6,521. Correlation is statistically significant at the level $p \leq 0.01$.

Misconduct and pressure to perform

Experiencing misconduct in the workplace

In the survey, two different approaches were used to measure the prevalence of bullying and sexual discrimination at the Max Planck Society. The first approach centers on self-ascription and entails asking the respondent how often they had been subjected to bullying in the course of the 12 months preceding the survey, and beyond. Following the practice in comparable studies, respondents were offered a definition of bullying to go along with the question (Salin, 2001):

"Bullying" here denotes repeated and persistent negative behavior directed toward one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves; in other words, bullying is not a conflict between parties of equal strength."

The second approach consists in the use of behavioral item batteries to enquire about types of behavior that are referred to as "bullying" in the socio-scientific literature, yet only in some cases conform to people's everyday understanding of the term. Here, a distinction is drawn between behavior that is work-related, personally directed or physically intimidating (Einarsen et al., 2009). Respondents indicate how often they have experienced these types of behavior at work during the 12 months preceding the survey. Within this approach, anyone who indicates having experienced at least one of these types of behavior at least occasionally in the course of the preceding 12 months is considered affected by bullying.

When conducting surveys on bullying and sexual discrimination, it is good scientific practice to make use of both self-ascription and behavioral items. Thus it can be seen that, both in general and at the Max Planck Society in particular, the frequency of self-ascribed experiences of being bullied falls well below the frequency of bullying behavior as socio-scientifically defined.

We hereby explicitly specify that this study does not support any conclusions about the prevalence of bullying and sexual discrimination in terms of legal offenses (such as the violation of people's fundamental personal rights). It should likewise be noted that in keeping with international scientific standards, the behavioral items used in the survey cover a large number of very different types of conduct. Nonetheless, especially in the case of work-related behavior, cultural and organizational context play a role in whether particular types of behavior are understood as examples of bullying. We recommend that respondents' **self-ascribed experiences of bullying and/or sexual harassment/discrimination** (the latter of which was not treated as a separate category in this survey) be used as point of reference, as they reflect **respondents' everyday understanding of the terms** and their **personal sense of having suffered wrong**.

Self-evaluation of whether a respondent feels they have been subjected to bullying

"I mean, when your supervisors laugh at you, this is not nice. When a supervisor compares you with his partner, it's not nice. When your colleagues treat you as less than them, just because you stand there, it's not nice. When you look for support within your institute and they just say 'we will work on this' but they never do."

Quote 15: Doctoral researcher.

One in ten people (10.1%) working at the Max Planck Society have in their own view been subjected to bullying during the 12 months preceding the survey (Table A 98). When the time period is extended to beyond 12 months that number rises to 17.5% (as an example: Zitat 15, Table A 99). Below, the findings are broken down into the responses of non-scientific and scientific staff, as this reveals certain clear differences.

Group differences in being subjected to bullying

As can be seen inFigure 19, the likelihood that a non-scientific employee has in their own view been subjected to bullying in the course of the 12 months preceding the survey is 50% higher than in the case of scientific personnel (Table A 100). Over a longer period, the probability of having been bullied becomes as much as 75% higher than in the case of scientific staff (Table A 101). As non-scientific staff are generally employed at the Max Planck Society for a longer time than scientists and researchers, there is almost necessarily a higher probability of bullying that goes on beyond a 12-month period among employees in the structural domain.

Statistically significant differences can likewise be observed between men and women (7.7% vs. 12.0%, Table A 102), and between scientists and researchers from Germany and from other EU countries (6.3% vs. 11.1%, Table A 103). As employees get older, the likelihood of bullying experiences increases from 6.6% among the 15-29 age group to 9.5% among the 30-44 cohort, to 12.6% among the 45-59 group, and falls again to 10.9% for employees who are 60+ (Table A 104). A correlation can also be seen in section affiliation. With a self-ascription rate of 7.6% (Table A 105), CPTS has a lower probability of bullying than GSHS with 12.1%, BMS with 11.5% and other facilities (10.4%). No statistically significant differences were found between scientific employees with different positions (such as doctoral candidates, group leaders, etc.).

Bullying: Self-ascription

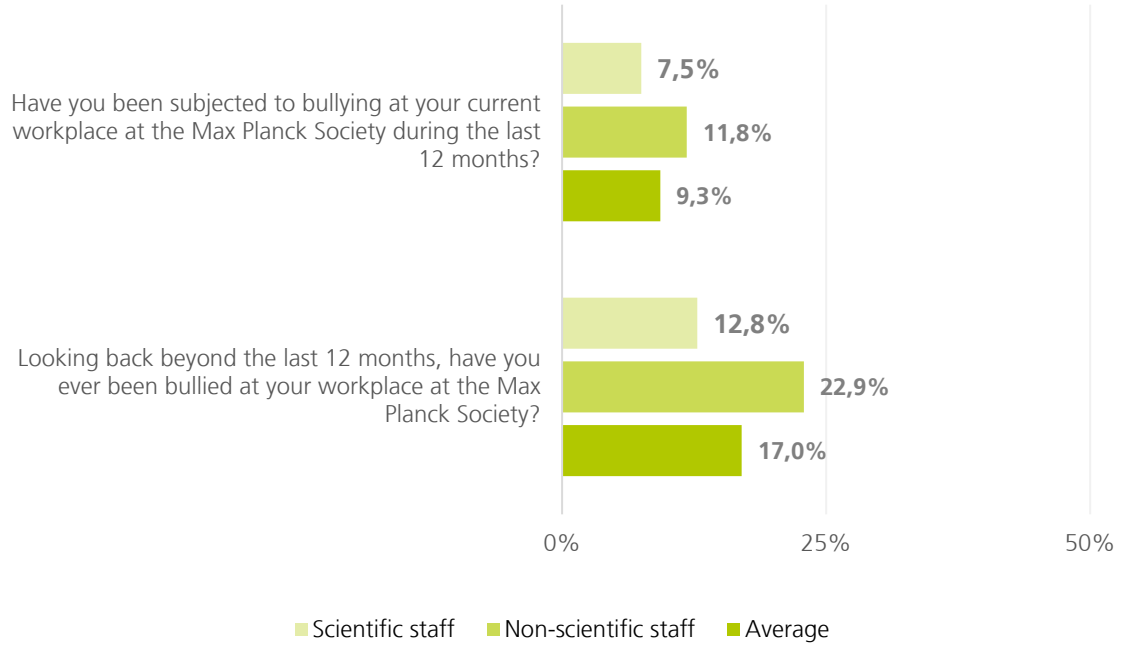

Figure 19: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about the self-ascription of bullying experiences.
Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 6,021; n(min.) = 5,949. All correlations are statistically significant at the level $p \leq 0.01$.

Bullying as a longer-term group problem

Respondents who indicated that they had been subjected to bullying at least occasionally in the 12 months leading up to the survey were asked about the number of people involved in the bullying, their relationship with the person or people involved, and whether they had been absent from work because of bullying.

As can be seen from Figure 20, 60.8% experienced bullying over longer periods of more than one year (Table A 106). Compared to sexual discrimination, bullying is a group problem (Table 4). A minority of bullying experiences (33.7%) are purely bilateral in nature. Bullying is generally experienced in the immediate workplace environment of those affected; as shown in Table 5, generally with the immediate superior (46.2%) or coworkers in their own group (42.1%).

Of those who indicated that they had been subjected to bullying at least occasionally in the 12 months before the survey, 29.6% said they had stayed away from their workplace either occasionally or more often than that (Table A 107).

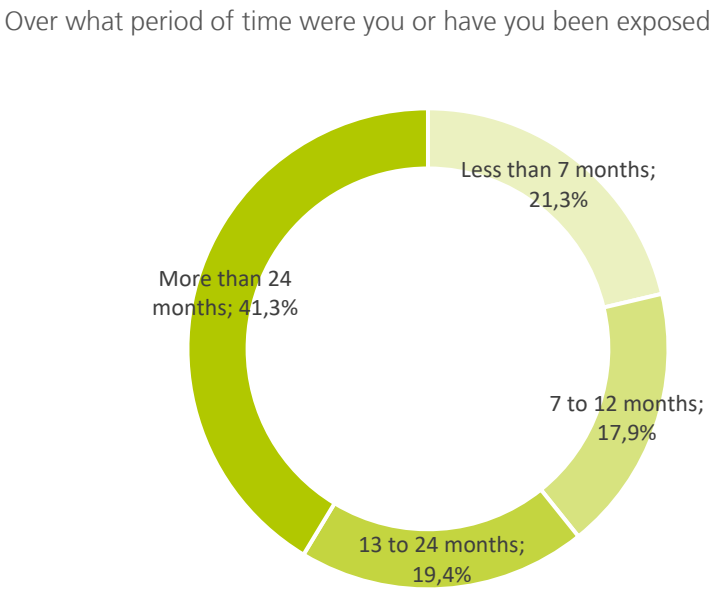

Figure 20: Persons who indicated that they had experienced bullying in the 12 months before the survey, about the duration of the bullying.
Multiple selection possible.
n = 803.

Table 4: Persons who indicated that they had experienced bullying in the 12 months before the survey, about the number of persons involved.
Multiple selection possible.
n = 831.

Number of persons involved	Bullying
1	33.7%
2	25.4%
3	20.3%
4	7.6%
5	4.7%
More than 5	8.3%

Table 5: Persons who indicated that they had experienced bullying in the 12 months before the survey, about their work relationship with the persons involved.
Multiple selection possible.
n = 852.

Relationship to persons involved	Bullying
Immediate superior	46.2%
Other superior	29.3%
Coworkers in own group	42.1%
Other coworkers	28.2%

Consequences of bullying on work atmosphere

> *"I would say that unfortunately it happens in administration. The head of administration bullies people in his team, and then other people in administration bully each other. Sad but true."*

Quote 16: Administrative employee.

When an employee indicates that they have been subjected to bullying, then they tend comprehensively to evaluate their work environment worse than coworkers who do not feel bullied. The survey revealed particularly negative consequences on the affected employee's evaluation of their superior's employee, rule and change orientation as well as on mentoring received, participative safety, task orientation, innovation orientation and vision of the group. People with experiences of bullying also have a lower sense of affiliation with their institute or facility. For example, 70.7% (Table A 108) of people without bullying experiences indicated that the other group members understand the group's objectives very well or completely, compared to 43.3% of people with bullying experiences. Of non-bullied personnel, 57.5% (Table A 109) indicated that their group tries to identify and address its own flaws and shortcomings, so as to become more effective in what it does. This contrasts with 30.9% of personnel with bullying experiences who affirmed the statement. Whereas 68.3% of people without bullying experiences (Table A 110) indicated that people in their group work together to develop and implement new ideas, only 33.6% of those with bullying experiences said the same. With regard to their commitment, people with bullying experiences do not differ significantly as regards their willingness to put in a great deal of effort beyond what is necessary compared to staff without bullying experiences (79.0% vs. 85.2%, Table A 111), although this does not hold for their willingness to accept changes in their work role or activities. Further statistically significant differences can be seen, for example, in the pride employees have in their institute/facility (55.1% vs. 78.8%, Table A 112) and their motivation by the institute/facility to do their best work (34.6% vs. 61.1%, Table A 113). In short, employees who experience bullying tend to describe their group and the leadership culture as much less efficient. An example of bullying behavior at work and its consequences for the team is given in Quote 16.

Work culture with room for improvement

To a large extent, work culture arises from within groups. The types of behavior described below constitute attempts by one person to dominate another, by means of deliberately affecting and consciously impeding their work. Four out of every five respondents (81.3%, Table A 114) indicated that in the 12 months preceding the survey, they had at least occasionally experienced at least one of the types of behavior depicted in Figure 11. Among all people working at the Max Planck Society, by far the most commonly indicated grievances are that information connected with the respondent's work is being withheld (60.6%, Table A 115), that the respondent is assigned tasks below their level of competence (51.5%, Table A 116), and that their opinions are ignored (48.1%, Table A 117). Moreover, nearly one third of respondents complained of an unmanageable workload (30.4%, Table A 118) and unreasonable deadlines (29.3%, Table A 119).

As can be seen in Figure 21, there are differences between scientific and non-scientific staff in this regard. Whereas scientists and researchers are statistically significantly put under pressure more often not to claim benefits to which they are rightfully entitled, non-scientific employees more frequently feel impeded in their work.

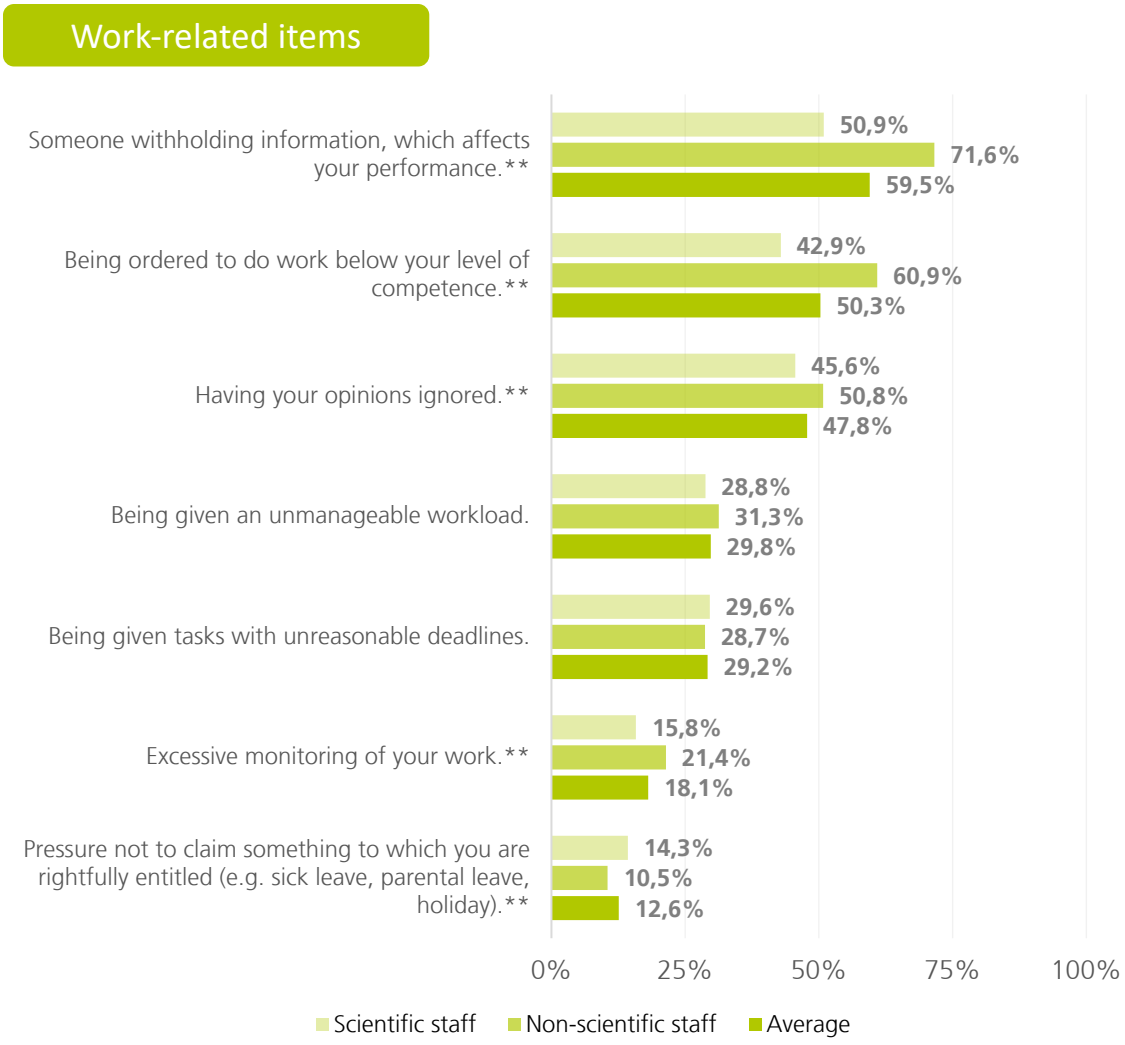

Figure 21: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about work-related misconduct they have experienced in their workplace (in last 12 months before survey).
Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 6,002; n(min.) = 5,889. *p ≤ 0.05,**p ≤ 0.01.

Personally directed misconduct

Figure 22 provides an overview of types of personally directed behavior through which one person attempts to undermine and demoralize another with respect to their personal characteristics. 32.7% (Table A 120) of all respondents at the Max Planck Society indicated that they had been ignored or excluded, and 31.8% have had others spread gossip or rumors about them (Table A 121). Moreover, one in five respondents (21.1%, Table A 122) indicated that they had been humiliated or ridiculed at work, in connection with their work. Here, once again, non-scientific personnel are more frequently affected (Figure 22).

The feeling of being ignored or excluded is more prevalent among scientists and researchers than among non-scientists, and is statistically significantly more likely to affect non-German employees: whereas 28.1% of German scientific personnel indicated having at least occasionally been ignored or excluded, the corresponding number among citizens of other EU countries is 45.2%, while it is 37.2% among citizens of non-EU countries (Table A 123).

Personally directed items

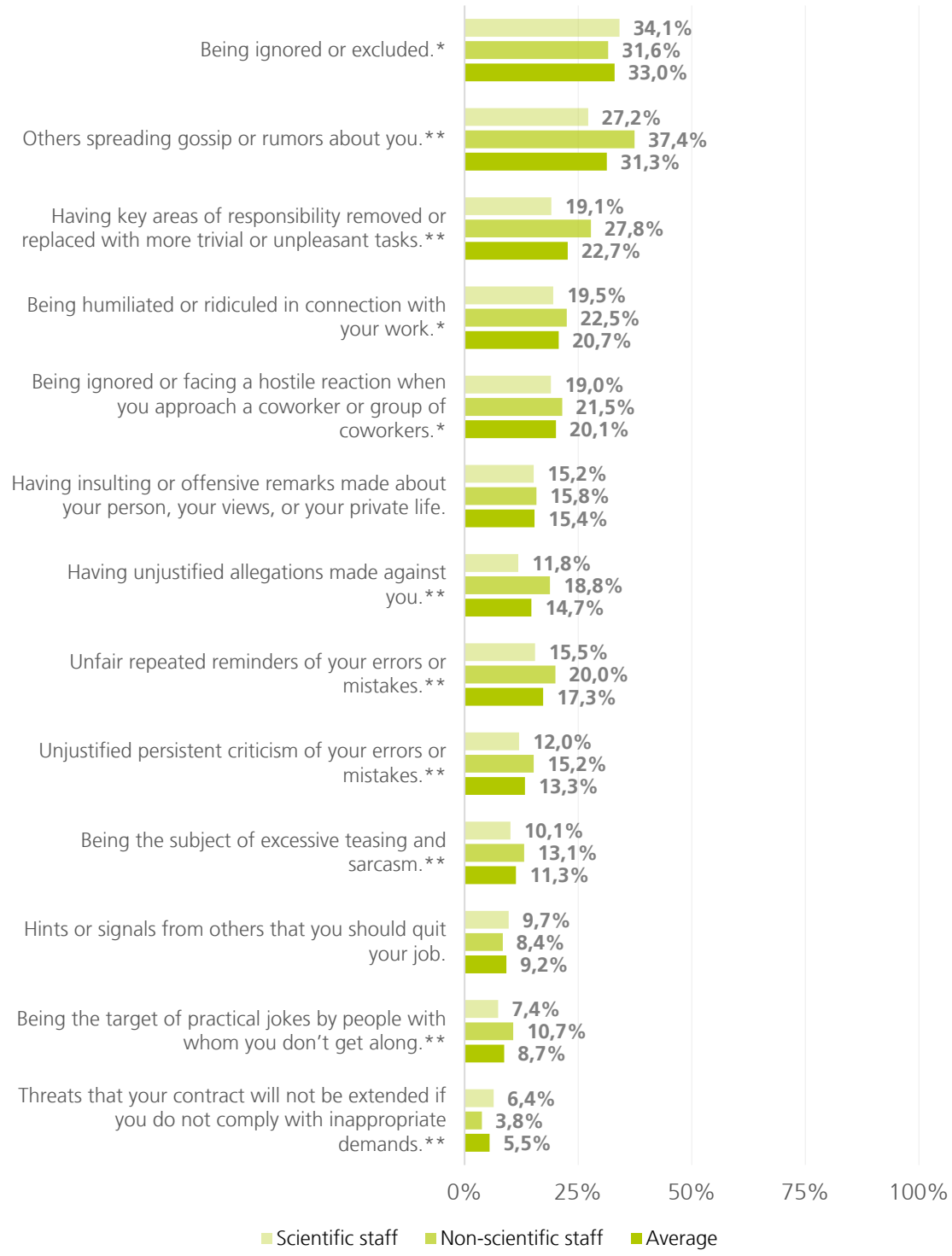

Figure 22: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about personally directed misconduct they have experienced in their workplace (in last 12 months before survey).

Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 6,013; n(min.) = 4,546; *p ≤ 0.05,**p ≤ 0.01.

Physically intimidating misconduct

Figure 23 lists types of physically intimidating behavior, in which one person verbally or physically threatens another so as to make them afraid that they might be injured or harmed. No statistically significant differences were found in this regard between scientific and non-scientific staff. 18.5% of all respondents (Table A 124) indicated that they had been shouted at or been the target of spontaneous anger at least occasionally over the course of the preceding 12 months. Quote 17 shows an example of aggressive behavior. One in twenty employees (5.2%, Table A 125) has at least occasionally encountered physically intimidating behavior, and 0.8% of respondents report having experienced threats of violence or physical abuse, or actual abuse (Table A 126).

"One time my director roared and screamed at me in his office for half an hour for something for which I wasn't even responsible. He stood right in front of me with his arms raised and shouted at me in a really aggressive manner. It was so bad that I wasn't able to set foot in that office for the rest of my time there."

Quote 17: Doctoral researcher.

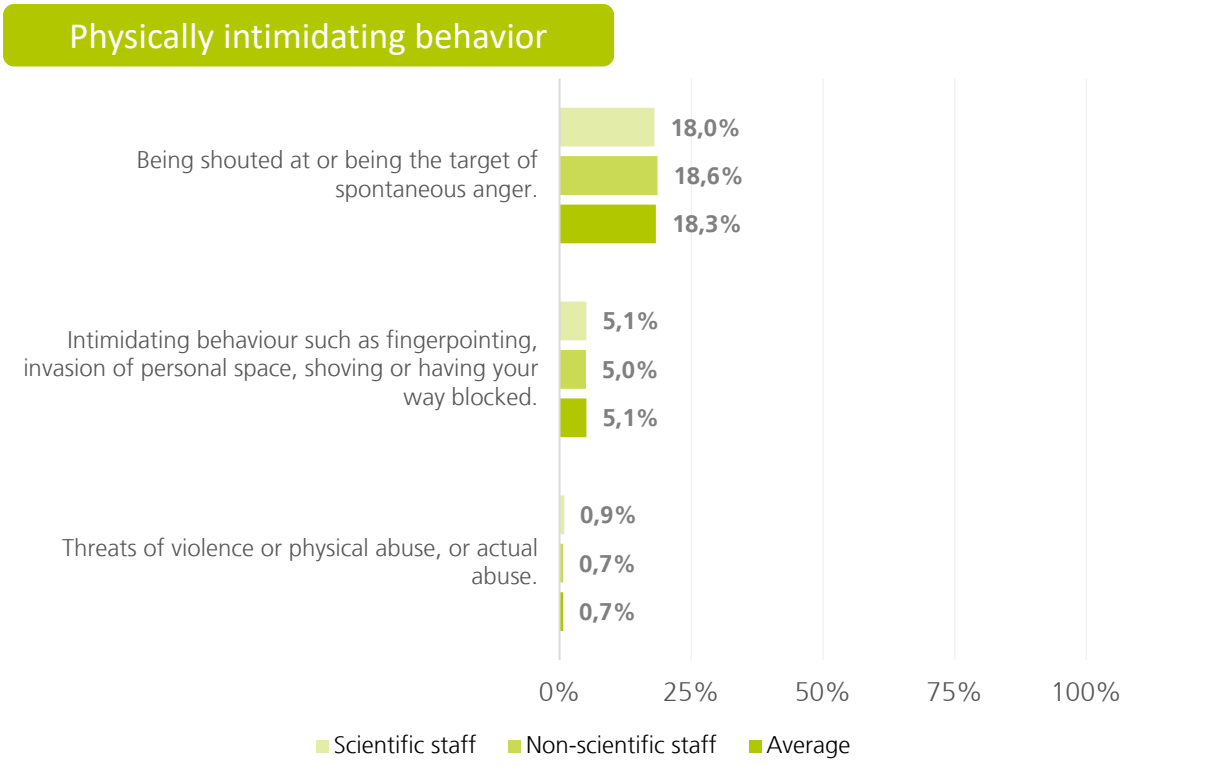

Figure 23: Response behavior of surveyed Max Planck Society employees, broken down into non-scientific and scientific employees, about physically intimidating behavior they have experienced in their workplace (in last 12 months before survey).
Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 6,035; n(min.) = 6,021. *p ≤ 0.05,**p ≤ 0.01.

Prevalence of bullying

There is fundamental debate about what criteria can be used to evaluate the prevalence of bullying in an organization: Does an affected person have to be subjected to social misconduct on a weekly basis, or are occasional incidents enough? Is self-ascription of the respondents as "bullied" sufficient, or do we need more objective standards?

In Table 6, various statistics were collated to evaluate the prevalence of bullying in the Max Planck Society. These are based on the self-ascription of those affected and on the responses to the behavioral items. The academic literature proposes calculating those affected by bullying by means of statistical classification methods based on behavioral items (Borkeland Nielsen et al., 2009). Following this methodology, we can say that 9.7% of the employees at the Max Planck Society have experienced bullying at least occasionally. This reference value is similarly high to the self-ascription value for having been bullied at least occasionally (10.1%) or the value for having been affected by at least two negative acts every week (Mikkelsen/Einsarsen criterion, 11.4%).

There is a big overlap in particular between the latent class analysis and self-ascription. Two-thirds (68.6%) of those affected by bullying according to the class analysis also see themselves as "bullied". Roughly half of those affected by bullying according to the Mikkelsen/Einarsen criterion (47.0%) also indicated themselves that they had been subjected to bullying either occasionally or more often than that. This amount of overlap is comparatively large (Borkeland Nielsen et al., 2009).

Table 6: The prevalence of bullying according to various methods of evaluation and estimation
Modified in accordance with Borkeland Nielsen et al., 2009.

Method	Prevalence rate
Self-ascription as affected (weekly or more often), last 12 months	1.8%
Self-ascription as affected (monthly or more often), last 12 months	3.0%
Self-ascription as affected (occasionally or more often), last 12 months	**10.1%**
Self-ascription as affected for longer than 12 months (occasionally or more often)	17.5%
Leymann criterion[1]: Affected by at least one negative act weekly, last 12 months	21.6%
Mikkelsen/Einarsen criterion: Affected by at least two negative acts weekly, last 12 months	**11.4%**
Combination of self-ascription (occasionally) and Mikkelsen/Einarsen criterion	5.3%
Latent class analysis, last 12 months	**9.7%**
Self-ascription as bully (occasionally or more often)[1]	2.0%

[1] In the literature, a period of being affected of at least 6 months is stipulated for the Leymann and Mikkelsen-Einarsen criteria. As the duration of the affected period was not queried for all individual items, this condition is not taken into account here.

Groups of affected persons

What types of affected persons are there?

A latent class analysis was carried out on the 22 statements about misconduct in the workplace that respondents were asked to evaluate in terms of their frequency. The objective of a latent class analysis consists in the describing or explaining the correlations observed between variables by means of hypothetical constructs. This involves identifying patterns in the data and using them to group the data into clusters. These clusters can then be attributed to different types or latent influencing factors. Based on the behavioral items, different types of people affected by bullying in the Max Planck Society were identified in this way (Table 7 and Appendix). The values in Table 7 indicate the probabilities of the individual frequencies (never, occasionally, monthly, weekly or daily), with which a person who is a member of Clusters 1 to 5 experiences one or more forms of work-related, personally directed or physically intimidating misconduct.

Whereas 69.1% of employees in Clusters 1 and 2 rarely or never experience misconduct, almost one-third of employees (30.9%) are regularly affected by misconduct. Clusters 3 and 4 are made up of people who occasionally experience forms of work-related misconduct in particular. In Cluster 4, which comprises 7.8% of employees, experiences of personally directed misconduct and also of physically intimidating behavior are more frequently to be found. While only 12.2% of people in Cluster 3 described themselves as bullied, the figure was 51.8% for people in Cluster 4. Cluster 5 contains a "hardcore" of bullying victims, comprising around 1.9% of employees. These are people who are very likely to be exposed to work-related and personally directed misconduct on a weekly or daily basis, while also frequently and regularly experiencing physically intimidating behavior. 85.4% of the people in this cluster describe themselves as bullied.

Table 7: Different types of bullying experiences among employees.
Method: latent class analysis; n = 6,676.

	Cluster 1: rare, work-related experiences	Cluster 2: no negative experiences	Cluster 3: occasional work-related and personally directed experiences	Cluster 4: occasional bullying experiences	Cluster 5: bullying victims
Frequency	35.20%	33.90%	21.20%	7.80%	1.90%
Work-related misconduct					
Never	0.66	0.92	0.45	0.29	0.12
Occasionally	0.3	0.08	0.40	0.37	0.21
Monthly	0.03	0	0.09	0.14	0.15
Weekly or daily	0.01	0	0.06	0.19	0.51
Personally directed misconduct					
Never	0.92	0.99	0.69	0.35	0.09
Occasionally	0.08	0.01	0.27	0.42	0.21
Monthly	0	0	0.03	0.12	0.17
Weekly or daily	0	0	0.01	0.11	0.53
Physically intimidating behavior					
Never	0.97	1	0.87	0.7	0.43
Occasionally	0.03	0	0.12	0.22	0.2
Monthly	0	0	0.01	0.05	0.13
Weekly or daily	0	0	0	0.03	0.23

Who belongs to these types?

Characteristics over-represented in Clusters 4 and 5

Among the 6,676 classified employees, women are overrespresented in Clusters 4 and 5 to a slight but statistically significant degree (51.1% vs. 46.1%, Table A 127).

Also over-represented are non-Germans from other EU countries (17.7% vs. 13.0%, Table A 128) (example: Quote 18) and non-scientific employees (44.5% vs. 38.0%, Table A 129), particularly in the category of other services (17.5% vs. 12.7%, Table A 130).

> *"Well, in the first year in Germany it was very hard for me. […] It was very difficult for me to have to go to work and be scared. Of course I was not offered help or anything. My boss just told me that if people were bullying me, I should basically just turn around and ignore it and get on with it or whatever."*

Quote 18: Postdoctoral candidate.

Members of BMS are represented more frequently in Clusters 4 and 5 than in the other clusters (42.2% vs. 31.8%) and members of CPTS more rarely (33.1% vs. 44.5%, Table A 131). For GSHS and other institutions, there is no discernible trend (15.5% vs. 15.7% and 8.6% vs. 8.0%).

Sexual discrimination

Experience of sexual discrimination[1]

As in the case of bullying, participants were first presented with questions regarding various types of unwanted behavior of a sexual nature they may have experienced at work (i.e. behavioral items). Next, self-ascription was prompted with the question "While working at the Max Planck Society, have you at any point during the last 12 months experienced any behavior that you would call 'sexual harassment and/or discrimination'?" In this case, no accompanying definition was supplied; respondents were required to respond purely intuitively. As with self-ascribed experiences of bullying, affirmative answers were followed by more in-depth questions, for instance regarding possibilities for reporting the behavior, as well as both actual and expected consequences.

Gender has a big influence on the self-ascription of sexual discrimination

"Oh I'm sure I have seen sexist behavior. But sexist sort of things can be very subtle sometimes. Just the way you perceive pushing things versus being sexist, you know. When you say: 'Well, she's very demanding.' But you realize you wouldn't like to have said that about a guy."

Quote 19: Director.

Of all respondents, 3.9% stated that they had felt sexually harassed or discriminated against by their coworkers and/or superiors at work at least occasionally during the 12 months prior to the survey. Women turned out to be three times more likely to be affected than men (Figure 24), which is why the findings are also broken down by gender below.[2] The most frequently affected groups are female scientific personnel aged 15-29 and 30-44. Specifically, 8.2% of the former (15-29) and 9.7% of the latter (30-44) indicated having experienced sexual harassment or discrimination (Table A 132). In Quote 19, an employee describes an example of subtle sexism.

[1] In the survey, a distinction was not made between sexual harassment and discrimination. Legally, the two terms are to be held distinct: sexual discrimination in the sense of a gender-based breach of the general principle of equal treatment in contradistinction to sexual harassment as a criminal offense. Sexual discrimination can be associated with sexual harassment. However, the survey was designed to gather personal experiences. In everyday language use, individuals generally do not maintain legal distinctions in describing whether they have experienced harassment or discrimination. Also, the boundaries are fluid: a person can feel discriminated against because she has been sexually harassed or can feel sexually harassed because she has experienced discrimination. Specifically in relation to sexist remarks and insults, the boundaries are not clear. In the discussion below, experiences of sexual harassment and discrimination are grouped together under the general name of sexual discrimination (see also National Academies of Sciences, Engineering, and Medicine (2018)).

[2] A third alternative is also provided here: "Other gender / No answer". For reasons of data protection, we chose not to include a third gender as a separate category. As the resulting combined category cannot be unequivocally interpreted, it has been omitted from the following remarks.

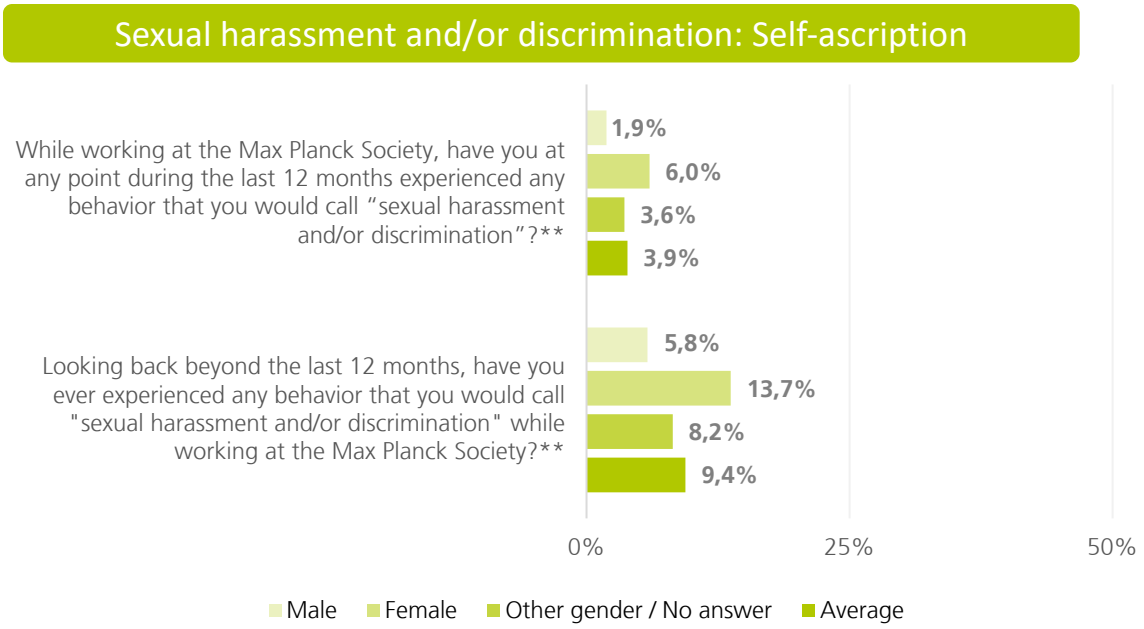

Figure 24: Response behavior of surveyed Max Planck Society employees, broken down by gender, about their self-ascription as sexually harassed and/or discriminated.
Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 8,183. n(min.) = 8,038; *p ≤ 0.05,**p ≤ 0.01.

Differences can be observed in this regard between scientific and non-scientific female employees. Whereas 8.4% of female scientists and researchers indicated having experienced sexual harassment or discrimination in the 12 months preceding the survey, the corresponding number among non-scientific female employees is half that, at 4.1% (A third alternative is also provided here: "Other gender / No answer". For reasons of data protection, we chose not to include a third gender as a separate category. As the resulting combined category cannot be unequivocally interpreted, it has been omitted from the following remarks. 133). Among female scientists and researchers who stated that they had been sexually harassed or discriminated against, a statistically significant larger number are citizens of non-EU countries (10.3%) than other EU-countries (8.0%) or Germany (7.2%), A third alternative is also provided here: "Other gender / No answer". For reasons of data protection, we chose not to include a third gender as a separate category. As the resulting combined category cannot be unequivocally interpreted, it has been omitted from the following remarks. 134). This data points to a strong vulnerability of female scientists and researchers compared to non-scientific employees in general and in particular to a somewhat higher vulnerability of non-German female scientists.

Sexual discrimination more strongly bilateral and less connected to immediate workplace environment than bullying

Compared to bullying, sexual discrimination is committed more frequently by individual persons, although by two or more people in half the cases nonetheless (Table 8). These people come from the affected person's immediate workplace environment more rarely than in the case of bullying (Table 9). Sexual discrimination is caused most frequently by other coworkers (39.6%). In over half of cases, however, it is immediate or other superiors who are responsible. The persons who indicated that they had been sexually discriminated in the 12 months previous to the survey can be divided up into two groups of equal size with short- and long-term experiences that lasted or have lasted less than or more than a year (Figure 25). Of the respondents with experiences of sexual discrimination, 8.1% said that they had been absent from work occasionally or more often that on account of the experiences.

In summary, sexual discrimination is caused more often by individual coworkers with behavioral problems, in contrast with bullying, which tends to be determined more strongly by group dynamics in the immediate

workplace environment. Incidents tend to be more sporadic and it is easier to avoid the perpetrators. Alongside these relative differences, however, there is also a large overlap between sexual discrimination and bullying and therefore a corresponding structural and institutional component behind discrimination experiences.

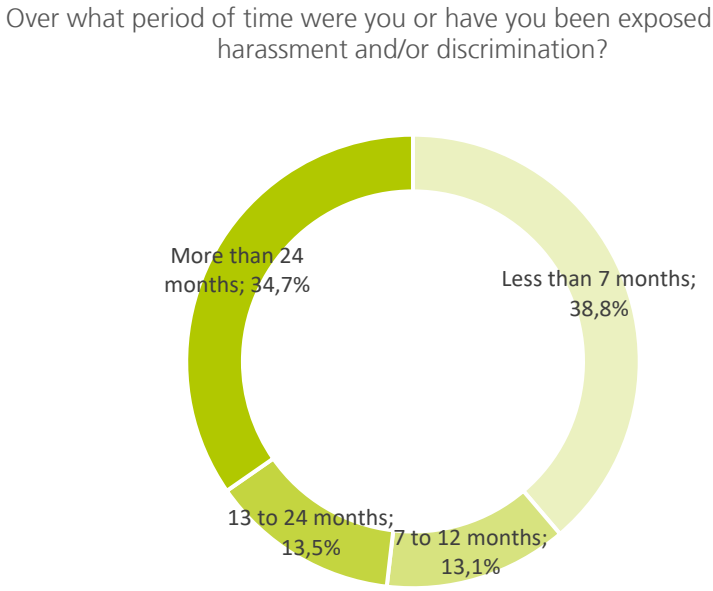

Figure 25: Persons who indicated that they had experienced sexual harassment or discrimination in the 12 months before the survey, about the duration of the harassment or discrimination experienced.
Multiple selection possible.
n = 245.

Table 8: Persons who indicated that they had experienced sexual discrimination in the 12 months before the survey, about the number of persons involved.
Multiple selection possible.
n = 831.

Number of persons involved	Sexual discrimination
1	51.8%
2	23.2%
3	10.2%
4	1.4%
5	1.8%
More than 5	11.6%

Table 9: Persons who indicated that they had experienced sexual discrimination in the 12 months before the survey, about their work relationship with the persons involved.
Multiple selection possible.
n = 852.

Relationship to persons involved	Sexual discrimination
Immediate superior	26.3%
Other superior	26.0%
Coworkers in own group	28.2%
Other coworkers	39.6%

Sexual discrimination in relation to work atmosphere

People who indicated that they have been affected by sexual discrimination give a statistically significantly worse evaluation of the participative safety, the shared vision, the task orientation and the innovation orientation of the group; the employee, structure and change orientation of scientific superiors and their mentoring; and the work-life balance and the impact of having children on their career, compared to persons who indicated that they have not experienced sexual discrimination. In addition, their organizational commitment is lower to a statistically significant extent. Moreover – similarly to bullying – a statistically significantly higher proportion of people with experiences of sexual discrimination describe their work environment as less efficient, compared to people who said they had not experienced any sexual discrimination. A few specific examples: 68.9% of people without discrimination experiences thought that the members of their group understand the objectives of the group very well or completely, as opposed to 42.3% of people with experiences of sexual discrimination (Table A 135). Furthermore, 55.4% of people without discrimination experiences are of the opinion that their group tries to identify and address its own flaws and shortcomings, so as to become more effective in what it does, compared to 34.3% of people who feel discriminated against (Table A 136). Two-thirds of respondents without discrimination experiences (65.4%, Table A 137) indicated that people in their group work together to develop and implement new ideas. For people with discrimination experiences, this figure is 41.5%.

Sexist behavior

"Yeah, definitely, they're the standard lines you hear sometimes, along the lines of: 'You should have it easier there in the future anyway, because you can apply for some special women's professorship."'

Quote 20: Research group leader.

Sexist behavior comprises all conduct in which one person treats another in such as way as to convey explicit antipathy toward people of a certain gender. Over the course of the 12 months preceding the survey, one in three women working at the Max Planck Society had experienced unequal treatment on the basis of her gender – three times the corresponding number among men (Figure 26). When it comes to being treated in a degrading or condescending manner because of one's gender, there is a clear difference between the experiences of men and women, although men have also been targeted by personally offensive sexist remarks to a significant extent (Figure 26).

Female scientists and researchers with non-German citizenship are particularly likely to have experienced personally offensive sexist remarks: 17.0% of female scientists and researchers from non-EU countries and 29.9% from other EU countries have been targeted by such remarks (as opposed to 11.1% of German female scientific staff, Table A 138). Quote 20 illustrates a form of sexism that can exist at higher levels of the hierarchy.

Sexist behavior

In the past 12 months, have you found yourself in situations involving your coworkers (including superiors) at the Max Planck Society where one or more of these individuals…

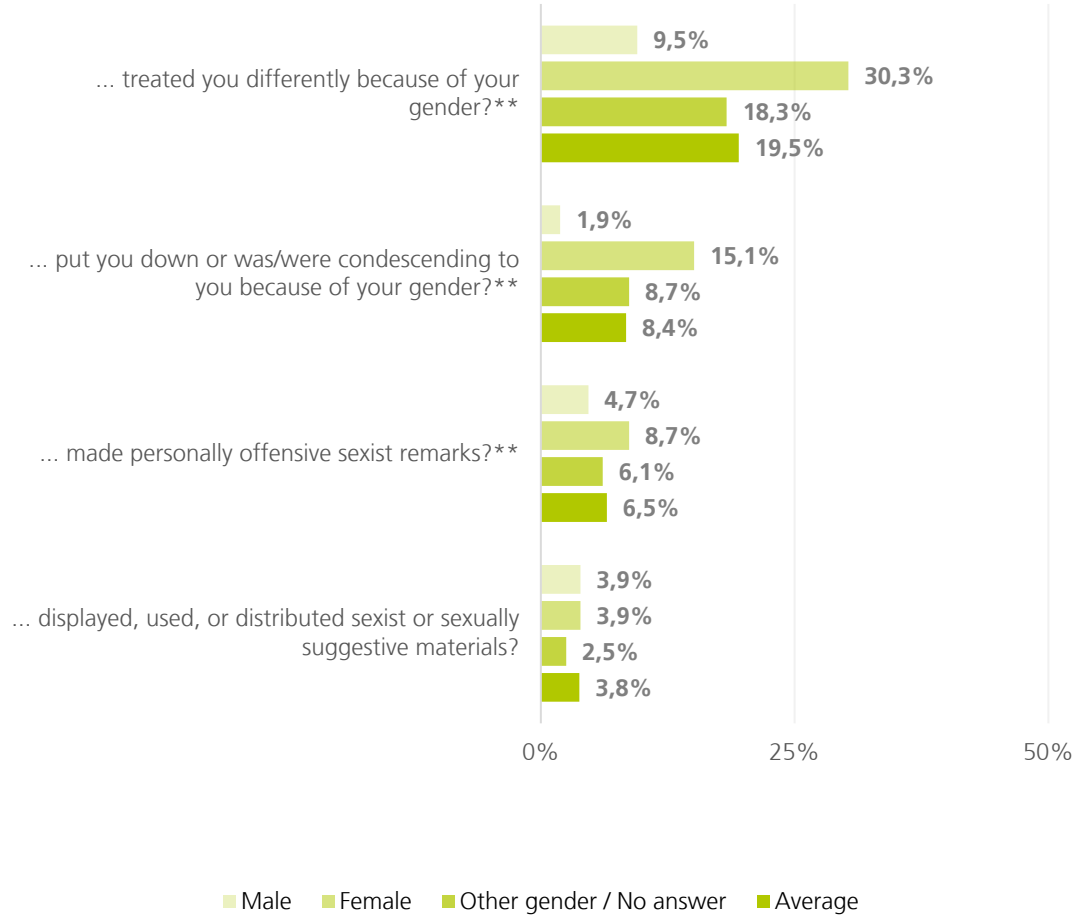

Figure 26: Response behavior of surveyed Max Planck Society employees, broken down by gender, about their experience of sexist behavior (in last 12 months before survey).
Percentages represent the proportion of respondents who answered with “Occasionally”, “Monthly”, “Weekly” or “Daily”. n(max.) = 8,212; n(min.) = 8,113. *p ≤ 0.05,**p ≤ 0.01.

Gender-related unequal treatment

People in scientific leadership positions, i.e. directors and group leaders, are most likely to have been treated differently because of their gender in the 12 months preceding the survey, with 26.3% noting such treatment, as opposed to 24.8% of doctoral candidates, 22.4% of postdoctoral researchers and 17.6% of other research associates (Table A 139). When only women in scientific leadership positions are taken into account, agreement with the statement that they had at least occasionally been treated differently on account of their gender is 59.1%, compared to 43.9% for female doctoral researchers, 42.1% for female postdoctoral researchers and 29.4% for other female research associates (Table A 140). Meanwhile, 11.8% of men in scientific leadership positions indicated that they had experienced gender-related unequal treatment. Quote 21 shows an example of efforts at management level to ensure equal treatment between genders.

"I always strive to treat men and women equally. That said, you always hear from gender theorists that men and women are not the same and that women should be treated differently. But that's too thorny for me: I try to treat, look at and integrate women in exactly the same way I do for men. Personally, I've never got a sense of any discriminating actions going on here."

Quote 21: Director.

Rude and offensive behavior

Figure 27 lists the types of behavior respondents were asked about that are classified as crude or offensive. Crude or offensive behavior is defined as treatment of one person by another which conveys sexualized hostility. The most common among these types of behavior is making offensive remarks about another person's appearance, body, or sexual activities, to which women in the younger age groups are more frequently subjected (9.9% in age group 15-29, including the few female apprentices; Table A 141).

Rude or offensive behavior

In the past 12 months, have you found yourself in situations involving your coworkers (including superiors) at the Max Planck Society where one or more of these individuals…

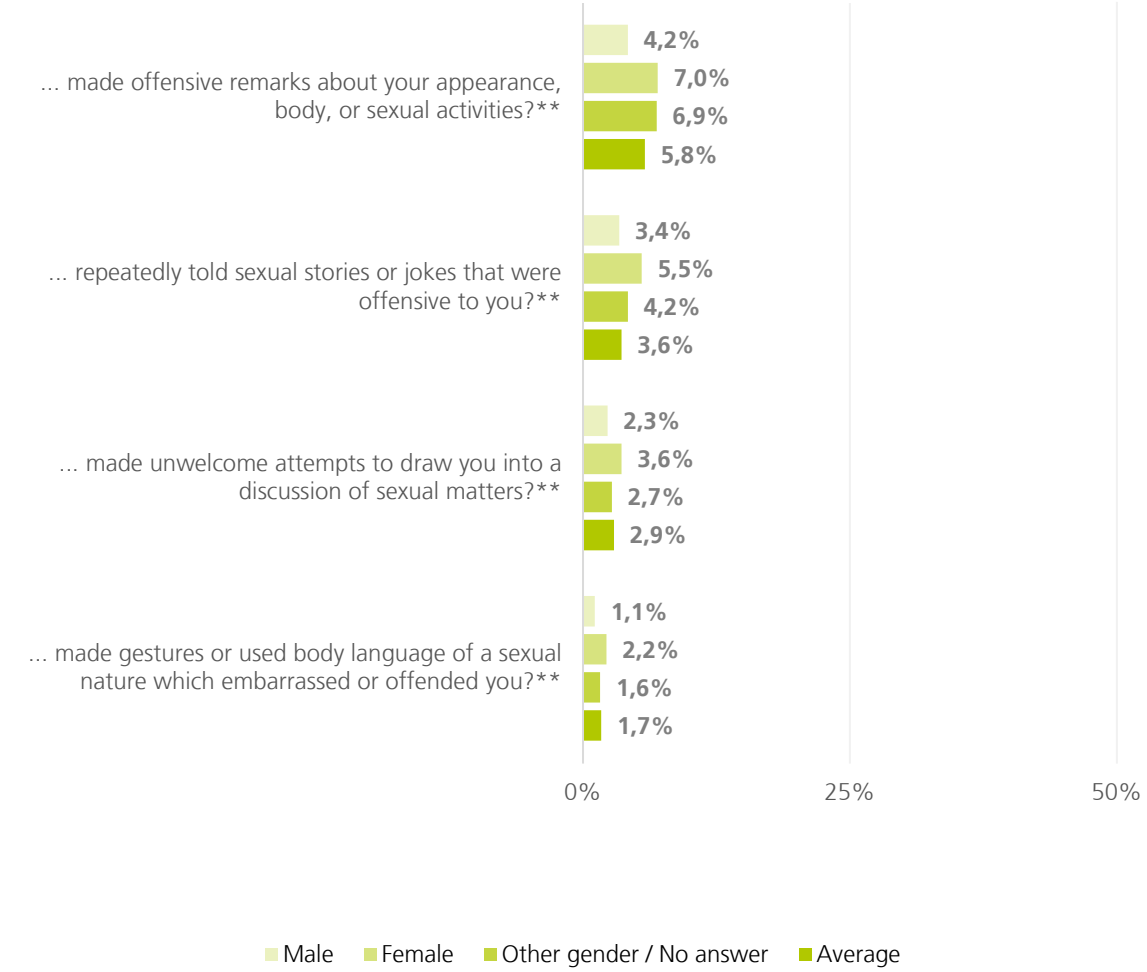

Figure 27: Response behavior of surveyed Max Planck Society employees, broken down by gender, about their experience of rude or offensive behavior in the last 12 months before the survey.
Percentages represent the proportion of respondents who answered with “Occasionally”, “Monthly”, “Weekly” or “Daily”. n(max.) = 8,216; n(min.) = 8,207. *p ≤ 0.05,**p ≤ 0.01.

Unwanted sexual attention

"Now, he wasn't constantly touching me, but one time for example I had headphones on and was typing away [...]. And then he comes in and takes off my headphones, looks at me, goes right up to my face, and says: 'Did you notice me?' […] now they're things that cross the line.

Quote 22: Administrative employee.

Unwanted sexual attention is understood as unwelcome, unreciprocated behavior aimed at establishing some form of sexual relationship. 4.2% of female respondents indicated that they had been touched in a way that made them uncomfortable (Figure 28). An example of this is Quote 22. Altogether 7.4% of female respondents reported having experienced at least one of the types of behavior listed in Figure 28– more than twice the corresponding number of 3.2% among men (Table A 142).

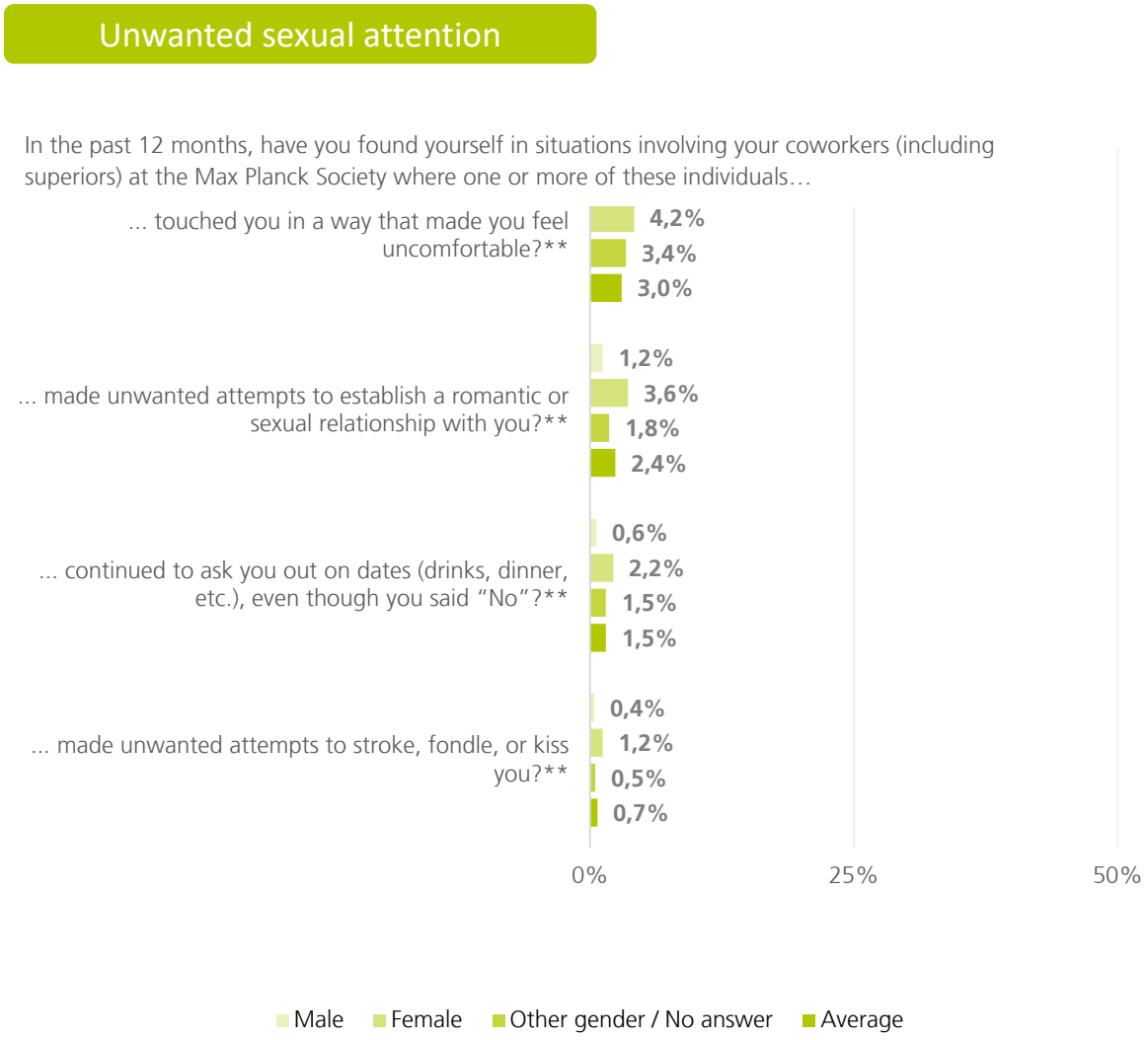

Figure 28: Response behavior of surveyed Max Planck Society employees, broken down by gender, about their experience of unwanted sexual attention in the last 12 months before the survey.
Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 8,213; n(min.) = 8,204; *p ≤ 0.05,**p ≤ 0.01.

Sexual pressure

Sexual pressure refers to bribing or threatening behavior that makes the targeted person's employment conditions dependent on their sexual compliance. In the survey, 0.2% of all respondents indicated that they had experienced one of the three forms of sexual pressure listed (Figure 29).

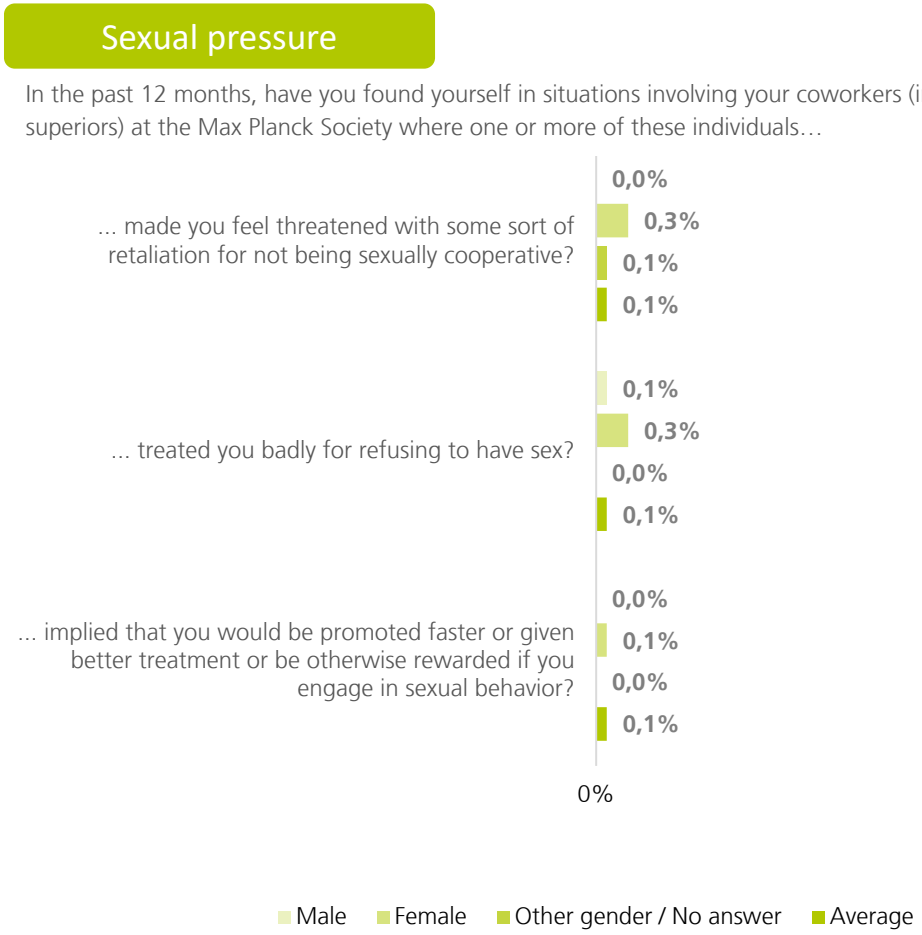

Figure 29: Response behavior of surveyed Max Planck Society employees, broken down by gender, about their experience of sexual pressure in the last 12 months before the survey.
Percentages represent the proportion of respondents who answered with "Occasionally", "Monthly", "Weekly" or "Daily". n(max.) = 8,214; n(min.) = 8,202; *p ≤ 0.05,**p ≤ 0.01.

Prevalence of sexual harassment and discrimination

The various measures for evaluating the prevalence of bullying were applied analogously here to sexual discrimination (Table 10). Here, the reference value of 1.9% for the latent class analysis is only half the value of 3.9% for self-ascription as being at least occasionally affected by sexual harassment or discrimination. The overlap between Cluster 3 and self-ascription is 55.9%.

The reason for the lower value of the class analysis is that self-ascription in the case of sexual discrimination (in the collected data set) correlates more strongly with comparatively mild forms of misconduct such as sexist behavior than it does, for example, with self-ascription for bullying and the experience of work-related misconduct. Accordingly, people affected by acts of sexual discrimination are quicker to perceive them as social transgressions than other uncivilized types of behavior in the workplace. This is founded in the very nature of bullying and sexual discrimination: Whereas bullying by definition relates to ongoing and regular misconduct, in the case of sexual discrimination individual incidents can already suffice to put those affected through comparably high levels of stress. As such, metrics based on a person being affected weekly are inappropriate in the case of sexual discrimination.

Table 10: The prevalence of sexual harassment and discrimination according to various methods of evaluation and estimation.

Modified in accordance with Borkeland Nielsen et al., 2009.

Method	Prevalence rate
Self-ascription as affected (weekly or more often), last 12 months	0.3%
Self-ascription as affected (monthly or more often), last 12 months	0.6%
Self-ascription as affected (occasionally or more often), last 12 months	3.9%
Self-ascription as affected for longer than 12 months (occasionally or more often)	9.5%
Leymann criterion[7]: Affected by at least one negative act weekly, last 12 months	2.3%
Mikkelsen/Einarsen criterion: Affected by at least two negative acts weekly, last 12 months	1.0%
Combination of self-ascription (occasionally) and Mikkelsen/Einarsen criterion	0.5%
Latent class analysis	**1.9%**

Groups of affected persons

What types of affected persons are there?

The reclassification based on behavioral items for sexual discrimination by means of a latent class analysis produced three clusters (Table 11 and Appendix). Cluster 1 contains four-fifths of employees (81.8%) and is made up of those who have never or extremely rarely experienced sexual discrimination at the Max Planck Society. Cluster 2 contains just under one-fifth of employees and is made up of those who occasionally experience or have experienced sexist behavior or and sometimes also crude or offensive behavior. Cluster 3 contains 1.9% of employees and is made up of those who have occasional and more regular experiences of sexist and crude or offensive behavior. A quarter of people in Cluster 3 (25%) also indicated experiences of unwanted sexual attention. Cluster 3 also contains the very rare extreme cases, where people experience a form of sexual pressure as often as monthly and in one case even on a weekly basis.

[7] In the sources, a period of being affected of at least 6 months is stipulated for the Leymann and Mikkelsen-Einarsen criteria. As the duration of the affected period was not queried for all individual items, this condition is not taken into account here.

Table 11: Different types of sexual discrimination experiences among employees.
Method: Latent class analysis; n = 8,018.

	Cluster 1: No discrimination	Cluster 2: Occasional experiences of sexism	Cluster 3: Sexual discrimination
Frequency	81.80%	16.30%	1.90%
Sexist behavior			
Never	0.98	0.63	0.26
Occasionally	0.02	0.31	0.4
Monthly	0	0.04	0.14
Weekly or daily	0	0.02	0.2
Rude or offensive behavior			
Never	1	0.89	0.35
Occasionally	0	0.11	0.39
Monthly	0	0.01	0.16
Weekly or daily	0	0	0.1
Unwanted sexual attention			
Never	1	0.94	0.71
Occasionally	0	0.06	0.23
Monthly	0	0	0.03
Weekly or daily	0	0	0.03
Sexual pressure			
Never	1	1	0.94
Occasionally	0	0	0.05
Monthly	0	0	0.01
Weekly or daily	0	0	0.01

Who belongs to these types?

Characteristics over-represented in Clusters 2 and 3

If we consider all 8,018 persons grouped in Table 11, the age group 15-29 (34.6% vs. 22.4%) and the age group 30-44 (51.2% vs. 40.9%) are represented significantly more often in Cluster 3 than in the other two clusters (Table A 143). Accordingly, older age cohorts are affected more rarely by sexual discrimination to a statistically significant extent.

The proportion of women in Clusters 2 (occasional experiences of sexism, 71.5%) and 3 (sexual discrimination, 68.5%) is higher than in Cluster 1 (no discrimination, 44.2%) (Table A 144). The proportion of non-Germans also increases from 24.8% in Cluster 1 to 30.6% in Cluster 2 and to 36.8% in Cluster 3 (Table A 145).

Statistically significant differences can be observed between scientific and non-scientific employees. Cluster 3 consists of 75.0% scientists and researchers, Cluster 2 consists of 62.7% and Cluster 1 of 57.6% (Table A 146).

With regard to scientific positions, doctoral researchers in particular are more strongly represented in Cluster 3 (49.4%) than in Clusters 1 (34.3%) and 2 (38.7%) Table A 147). Postdoctoral researchers are somewhat more frequently represented in Clusters 2 (33.0%) and 3 (35.4%) than in Cluster 1 (28.9%). Scientific superiors but above all other research associates are represented in Cluster 3 (6.3%) more rarely than in Clusters 1 (11.1%) and 2 (9.9%). According to this breakdown, people with a scholarship or a funding contract are represented more than twice as often in Cluster 3 (11.9%) than in Cluster 1 (5.3%) (Table A 148).

With regard to non-scientific staff, employees in other services in particular are represented more frequently in Cluster 3 (40.0%) and in Cluster 2 (39.7%) than in Cluster 1 (28.9%) (Table A 149). For their part, employees from technical and IT are represented less often in Clusters 2 and 3 than in Cluster 1.

Points of contact when there is a conflict

Conflict procedures

Improvement of conflict resolution system as an ongoing task

At the time of the survey, the Max Planck Society had newly implemented several measures for more effective and objective conflict management. The need to do this is made apparent by Quote 23. Examples include the use of an external law firm as a confidential source of advice, and the adoption of a Code of Conduct Against Sexual Discrimination in early 2018. A list of the various points of contact in case of conflict that were already available at the time was distributed among employees, including as part of the questionnaire.

> *"So the process was far too long, much to stressful for us. We never actually felt that we were taken seriously, that we were protected. Therefore, it's actually really good what come out of it, but naturally it's not 100 percent satisfactory. And I think simply that a lot more needs to be done, that the victims need to protected, because where I work that was almost never the case."*

Quote 23: Postdoctoral researcher.

The findings presented below do not support **any** judgements regarding the measures that have been in place since 2018. They do, however, provide detailed information that can be used in the further improvement of the conflict resolution systems at the Max Planck Society and its individual institutes.

Frequency with which incidents of bullying and sexual discrimination are reported

Of all individuals who indicated that they had been bullied in the 12 months preceding the survey, one third (35.0%) had reported the behavior. Of this group, one third (33.7%) indicated that they were very dissatisfied with the consequences of having done so, whereas one third (30.2%) indicated that they were satisfied or very satisfied. Of all respondents who indicated that they had felt sexually harassed or discriminated against, 13.8% had filed a complaint. Of these people, two in five (43.8%) were very unsatisfied with the consequences of having reported the behavior, while one quarter (28.1%) indicated being satisfied or very satisfied.

The majority of those who reported occurrences of bullying turned to their scientific superiors within the organization: half (47.1%) of those affected turned to their immediate superior, one quarter (24.8%) spoke with their managing director, while the remaining quarter (24.8%) turned to other directors. One fifth (17.3%) went to the head of administration. An equally notable 41.4% (also) lodged a complaint with the local works council, or with the local gender equality officer (10.4%) or ombudsperson (10.1%). Other support options (e.g. mediation services, on-site psychosocial counseling services, or the law firm that has been a designated point of contact since summer 2018) were contacted to lesser, yet still pertinent degree. In the case of sexual discrimination, the range of people and bodies that were consulted is noticeably smaller. Half of those who did report the relevant misconduct (48.5%) spoke with their immediate superior. Roughly one tenth (also) turned to other management personnel. Other frequently consulted points of contact are local gender equality officers (36.4%) and local works councils (21.2%).

Effectiveness of conflict resolution mechanisms

When asked for their reasons for not reporting the behavior in question, in the case of both bullying and sexual discrimination, around half of the respondents indicated that they did not expect it to have any effect on the situation. Moreover, as can be seen in Table 12, those affected by bullying are more skeptical regarding the effectiveness and possible negative consequences of reporting misconduct, than those affected by sexual discrimination. One possible reason for this might be the higher involvement of immediate superiors in situations involving bullying.

Table 12: Persons who indicated that they had experienced bullying/discrimination in the 12 months before the survey and did not report it, on the reasons for not doing so.
Multiple selection possible.
n(max.) = 517; n(min.) = 207.

Consequences of reporting	Bullying	Sexual discrimination
There would be no consequences.	54.7%	45.4%
There would be a negative impact on my career.	35.0%	26.6%
In this situation, only changing one's workplace can help.	23.0%	5.8%
I was able to or want to deal with the situation myself.	36.4%	44.9%
It would only make the problem worse.	54.9%	25.6%
Other reasons	7.7%	18.8%

Negative consequences having reported bullying

Every person who indicated having filed a complaint and being unsatisfied or very unsatisfied with the outcome was asked whether they had experienced negative consequences as a result of their complaint. No questions were asked about possible positive consequences. As can be seen in Table 13, in the case of bullying 41.5% and in the case of sexual discrimination 69.6% indicated having experienced no negative consequences as a result of reporting the behavior in question. In these cases it can be assumed that the respondents' dissatisfaction stems from their having not experienced any positive consequences either. Furthermore, it becomes clear that reporting incidences of bullying carries a far higher probability of negative consequences for the person making the complaint, than in the case of sexual discrimination.

Table 13: Persons who indicated that they had experienced bullying/discrimination in the 12 months before the survey, reported it and were unhappy with the outcome, on the reasons for their dissatisfaction.
Multiple selection possible.
n(max.) = 212; n(min.) = 23.

Consequences of reporting	Bullying	Sexual discrimination
The report had no negative consequences.	41.5%	69.6%
The report had negative consequences for cooperation with my coworkers.	29.7%	17.4%
The report had a negative impact on my career.	23.6%	8.7%
The report had other negative consequences.	34.9%	17.4%

Awareness of points of contact & how employees judge the obligation to confidentiality

Best known points of contact.

> *"In the beginning, as I said, they came and they threatened me. […] They saw that I complained directly to my boss. I didn't know that there was an Ombudsman, I didn't know anything. So I went to my boss and after this they would maybe still laugh at me when I held a presentation, but after some months they didn't do it anymore, because they knew I would complain."*

Quote 24: Postdoctoral researcher.

One way of improving conflict management could be to increase people's awareness of existing points of contact for reporting conflicts. For this reason, employees were asked to what extent they were aware of the various points of contact. Figure 30 shows the awareness of the individual points of contact, grouped professionally into officers and works councils, management level, and in-house and external representatives.

We see here that the institute-specific officers and works councils are particularly well known as points of contact. In the course of the interviews, doubts were expressed about the impartiality and discretion of these reporting channels – for example, because an academic superior who was involved in the bullying was him- or herself a member of the local works council, or because the members of the works council as employees are in a relationship of dependency toward a superior who is allegedly doing the bullying. As such, it would make sense to increase the visibility of the general works council, the central gender equality officers and the central representatives for people with severe disabilities as reporting channels in the individual institutes. Quote 24 is an example of a lack of awareness of the points of contact for reporting and of the fact that the immediate superior is often the first point of contact.

Secondly, the immediate scientific superior and the managing director are the best-known points of contact for employees. Heads of administration could be more visible. The interviews reflect the trust of employees in superiors. Generally, an employee's own or another scientific superior is either the first or one of the first points of contact in conflict situations (see also above). This underscores the important of suitable training and giving superiors the skills to deal with conflict management.

Thirdly, we see that the option of an external legal counsel is very well known compared to other avenues of advice. This can be attributed to the fact that this reporting channel was introduced recently in 2018. In general, we recommend that the existence of counseling options, especially on-site psychosocial counseling services, be communicated more clearly to employees.

With regard to awareness of the individual reporting channels, there are statistically significant differences between the sections of the Max Planck Society. In particular, almost all reporting channels are better known in the other facilities – to which category the Administrative Headquarters also belongs – than they are in the other sections of the organization. Moreover, the representatives for people with severe disabilities are somewhat less well known in GSHS than in CPTS and BMS. In addition, the mediation services and particularly the on-site psychosocial counseling services are less well known in GSHS than in the other two sections. By contrast, the option of seeking external legal counsel is somewhat better known in GSHS than in BMS and CTPS.

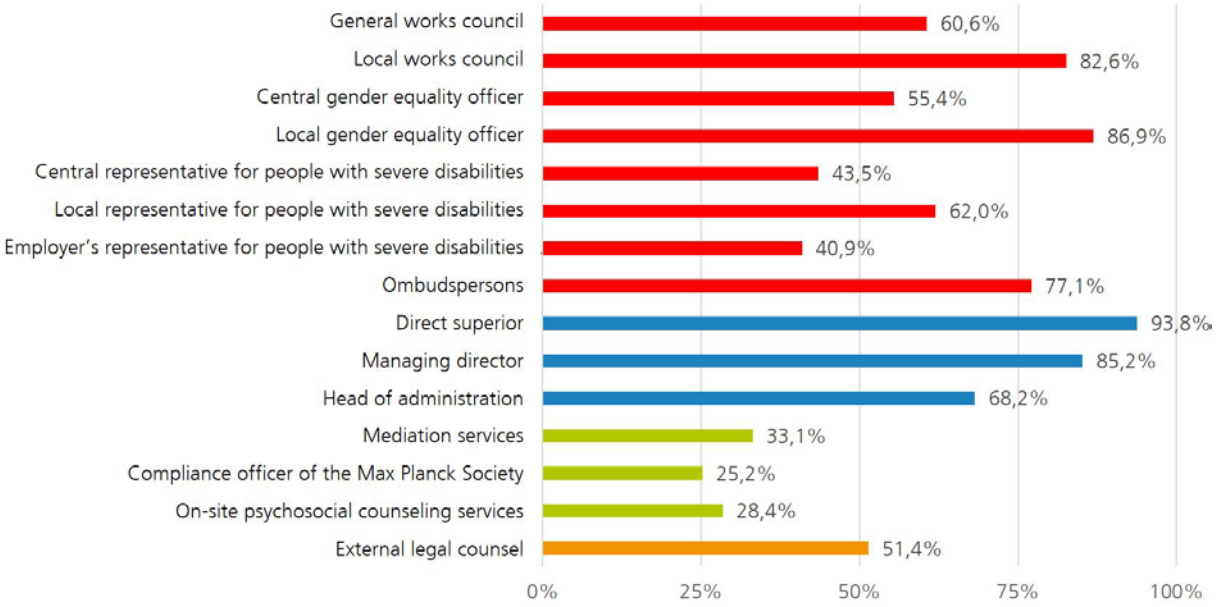

Figure 30: "Which of the following contact points [...] were you aware of as possibilities for reporting the misconduct of coworkers (incl. superiors) against you?"
Percentages represent the proportion of respondents who answered with "I was aware of this possibility".
n(max.) = 7,521; n(min.) = 6,645.

One reason for people failing to report a conflict situation can be a lack of confidence in the discretion of the contact points for reporting. Employees were asked for their opinion as to whether the individual reporting points were legally obliged to maintain confidentiality. Figure 31 shows that employees have a high degree of confidence in the individual bodies and organizations with respect to their confidentiality.

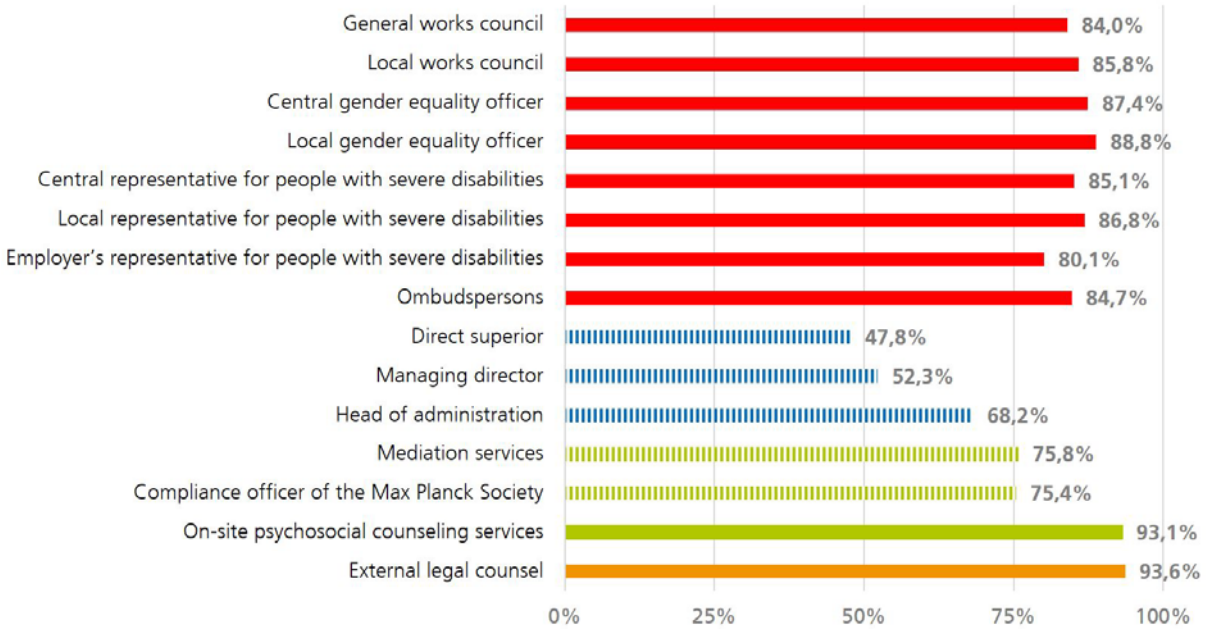

Figure 31: "Which of these external bodies and organizations do you think are legally obliged to keep information confidential?"
Percentages represent the proportion of respondents who answered with "Under legal obligation of confidentiality".
Hatched bars represent contact points that are not under legal obligation of confidentiality.
n(max.) = 7,214; n(min.) = 5,166.

How employees judge the obligation to confidentiality of superiors and advice and support centers

Contact points that are not under legal obligation of confidentiality are represented by hatched bars in Figure. It is noticeable that on average over half of respondents think that the management level has a legal obligation to confidentiality, which in actual fact does not exist. Once again, we see a need here for suitable training for superiors. Clearly, superiors and advice and support centers must always inform the person who comes to them to report a case of conflict that a duty of confidentiality does not exist – and must do so before the conversation begins.

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Appendix

Glossary

Work atmosphere:
Encompasses an organization's formal and informal rules, practices, procedures and routines, as perceived by its employees.

Work culture:
Pattern of basic assumptions about how a given organization functions and should function, from the point of view of its employees (Ostroff et al., 2012).

Group atmosphere:

- **Shared vision of group:** How clear, amenable to consensus, attainable and valuable the goals of their own group are in the estimation of respondents. (Anderson and West, 1998).
- **Task orientation:** The general commitment of the group to excellence in task performance and building reciprocally on the ideas of team members.
- **Participative safety:** Active participation of group members in common processes in an atmosphere of mutual trust and support (Anderson and West, 1998).
- **Innovation orientation:** Expectation and approval of and practical support for work on new ideas and approaches (Anderson and West, 1998).

Leadership culture:

- **Employee orientation:** Evaluation of respondents regarding the extent to which their superiors value the work of subordinates and value them as people (Fjell et al., 2007).
- **Change orientation:** Evaluation of respondents as to what extent their managers act in a creative and visionary manner and are willing to take risks (Fjell et al., 2007).
- **Rule orientation:** Extent to which managers try to solve problems within a clearly defined framework and how much importance they attach to this framework.
- **Career development:** Intensity of mentoring relationship between managers and subordinates (Ragins and McFarlin, 1990).

Affinity with institute/facility:
Identification with and emotional involvement in the concerns of their own institute or facility (Ragins and McFarlin, 1990).

Work-life balance:
Healthy balance between work and private life.

Equal opportunities:
Evaluation as to whether the careers of women and men were supported equally or if one gender was receiving an advantage.

Bullying:
"Bullying" here denotes repeated and persistent negative behavior directed toward one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves; in other words, bullying is not a conflict between parties of equal strength (Salin, 2001).

- **Work-related bullying behavior:** Types of behavior which constitute attempts by one person to dominate another, by means of deliberately affecting and consciously impeding their work (Einarsen et al., 2009).
- **Personally directed bullying behavior:** When a person attempts to undermine and demoralize another with respect to their personal characteristics (Einarsen et al., 2009).

- **Physically intimidating behavior:** When one person verbally or physically threatens another so as to make them afraid that they might be injured or harmed (Einarsen et al., 2009).

Sexual harassment:

As a criminal offense, it is usually considered separately from sexual discrimination. In this study, however, sexual harassment and sexual discrimination are grouped together under the general heading of sexual discrimination, as the personal evaluations of respondents are the focus in empirical surveys, and respondents are often not fully cognizant of the legal distinctions. As such, the definition is given under: Sexual Discrimination.

Sexual discrimination:

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when this conduct explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work performance, or creates an intimidating, hostile, or offensive work environment (National Academies of Sciences, Engineering, and Medicine, 2018).

Sexist behavior:

Comprising all conduct in which one person treats another in such as way as to convey explicit antipathy toward people of a certain gender.

- **Rude or offensive behavior:** Treatment of one person by another which conveys sexualized hostility.
- **Unwanted sexual attention:** Unwelcome, unreciprocated behavior aimed at establishing some form of sexual relationship.
- **Sexual pressure:** Bribing or threatening behavior that makes the targeted person's employment conditions dependent on their sexual compliance.

Determining the cluster models

To group respondents according to their answers to the behavioral item batteries on bullying and sexual discrimination, a latent class analysis was carried out in each case. This is a state-of-the-art technique for the grouping of categorical variables and for evaluation of the *Negative Acts Questionnaire*, which was also used here for the bullying items (Borkeland Nielsen et al., 2009; Magidson and Vermunt, 2002).

Table 14 shows the fitness measures of various cluster models for the behavioral bullying items. All values reveal a clear degression of the listed key indicators according to the 5-cluster model (BIC(LL), AIC(LL), SABIC(LL), -2LL Diff) (Lovegrove et al., 2012). This means that as of the 5-cluster model, each further cluster permits only a slight improvement of the model quality.

Another method for determining the appropriate number of clusters is the *bootstrap likelihood ratio test (*Shao et al*., 2014)*. The BLRT indicates whether the quality of two cluster models differ from each other to a statistically significant extent. Table 14 shows that with each further cluster (up to 8 clusters and beyond), it was possible to improve the model quality to a statistically significant degree. This is caused by high local dependencies between the item batteries used (strong correlations of the individual items with each other). In turn, the reason for this is that the items used were derived from certain constructs with the purpose (e.g. work-related and personally directed misconduct) of measuring them as validly as possible. In addition, the high local dependencies are caused by the nature of the phenomenon itself: people who experience stronger forms of bullying or sexual discrimination also tend to experience weaker forms as well.

The third method concerns the theoretical foundation for determining the number of clusters. A 5-cluster solution was chosen in the end primarily based on theoretical considerations. This was the first of the models to permit a clear separation of a group of bullying victims and a group of persons occasionally affected by bullying from those persons who only occasionally experience mild forms of misconduct in the workplace or not at all (Borkeland Nielsen et al., 2009).

Table 14: Fitness measures for latent class models of behavioral bullying items with 1 to 8 classes.
BIC = Bayesian Information Criterion, AIC = Akaike Information Criterion, SABIC = Sample Size Adjusted BIC, -2LL Diff = Conditional Bootstrap, BLRT = Bootstrap Likelihood Ratio Test.
n = 6,676.

Model name	Number of clusters	BIC(LL)	AIC(LL)	SABIC(LL)	-2LL Diff	BLRT
Model1	1-cluster	182655.509	182056.557	182375.867	N/A	N/A
Model2	2-cluster	157398.332	156642.835	157045.601	25459.7216	0.000
Model3	3-cluster	150866.257	149954.216	150440.438	6734.6194	0.000
Model4	4-cluster	148884.531	147815.946	148385.624	2184.2698	0.000
Model5	**5-cluster**	**148044.295**	**146819.165**	**147472.299**	**1042.7810**	**0.000**
Model6	6-cluster	147336.563	145954.89	146691.479	910.2756	0.000
Model7	7-cluster	147115.505	145577.287	146397.332	423.6029	0.000
Model8	8-cluster	146928.026	145233.264	146136.765	390.0230	0.000

Three clusters were derived from the behavioral items for measuring sexual discrimination (Table 15). Mathematically, the explanatory power of the 3- to 4-cluster solution drops off sharply (see "-2LL Diff" column in Table 15). The decision in favor of the 3-cluster solution was made on theoretical grounds. In the 3-cluster solution, what stands out are a large group of persons who are not affected, a minority of persons with experience of sexist behavior (16.3%) and a small group who regularly experience sexual discrimination (1.9%). In the models with a greater number of clusters, the middle group was differentiated into ever smaller subgroups, which did not promise any interpretative added value.

Table 15: Fitness measures for latent class models of behavioral sexual discrimination items with 1 to 8 classes. BIC = Bayesian Information Criterion, AIC = Akaike Information Criterion, SABIC = Sample Size Adjusted BIC, -2LL Diff = Conditional Bootstrap, BLRT = Bootstrap Likelihood Ratio Test.
n = 8,018.

Model name	Number of clusters	BIC(LL)	AIC(LL)	SABIC(LL)	-2LL Diff	BLRT
Model1	1-cluster	39955.105	39584.6644	39786.6813	N/A	N/A
Model2	2-cluster	34055.1851	33572.9135	33835.9166	6043.7509	0.000
Model3	**3-cluster**	**33008.971**	**32414.8682**	**32738.8576**	**1190.0453**	**0.000**
Model4	4-cluster	32770.845	32064.9112	32449.8868	381.9571	0.000
Model5	5-cluster	32705.8573	31888.0924	32334.0542	208.8188	0.000
Model6	6-cluster	32666.632	31737.0359	32243.984	183.0565	0.000
Model7	7-cluster	32709.6796	31668.2524	32236.1868	100.7835	0.000
Model8	8-cluster	32784.5297	31631.2714	32260.192	68.9810	0.000

Contingency tables

To ensure the transparency of the interpretations and to facilitate further work with the data, all the contingency tables used in the report of findings are listed below. Only results that lay below a significance value (p-value) of 5% were used.

Table A 1: How worthwhile do you think these objectives are to your institute or facility? * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
How worthwhile do you think these objectives are to your institute or facility?	Not at all or slightly	Count	63	145	208
			3,1%	4,5%	3,9%
	Moderately	Count	239	544	783
			11,6%	16,8%	14,8%
	Very or completely	Count	1762	2541	4303
			85,4%	78,7%	81,3%
Total		Count	2064	3230	5294
			100,0%	100,0%	100,0%

Table A 2: Vision of a group, its clearness and relevance * Simplified position of scientific staff

			Simplified position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Vision of a group, its clearness and relevance	Not at all or slightly	Count	4	42	41	12	99
			1,0%	3,6%	4,1%	1,5%	3,0%
	Moderately	Count	20	272	204	118	614
			5,2%	23,5%	20,5%	14,6%	18,3%
	Very or completely	Count	361	844	751	679	2635
			93,8%	72,9%	75,4%	83,9%	78,7%
Total		Count	385	1158	996	809	3348
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 3: Vision of a group, its clearness and relevance * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	Vision of a group, its clearness and relevance	Not at all or slightly	Count	1	8	9
				,9%	1,9%	1,7%
		Moderately	Count	11	60	71
				10,1%	14,5%	13,6%
		Very or completely	Count	97	346	443
				89,0%	83,6%	84,7%
	Total		Count	109	414	523
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	Vision of a group, its clearness and relevance	Not at all or slightly	Count	5	41	46
				1,7%	3,2%	2,9%
		Moderately	Count	31	257	288
				10,4%	20,3%	18,4%
		Very or completely	Count	262	966	1228
				87,9%	76,4%	78,6%
	Total		Count	298	1264	1562
				100,0%	100,0%	100,0%
more than 4 years	Vision of a group, its clearness and relevance	Not at all or slightly	Count	38	44	82
				2,2%	2,7%	2,5%
		Moderately	Count	291	264	555
				17,2%	16,4%	16,8%
		Very or completely	Count	1363	1302	2665
				80,6%	80,9%	80,7%
	Total		Count	1692	1610	3302
				100,0%	100,0%	100,0%
Total	Vision of a group, its clearness and relevance	Not at all or slightly	Count	44	93	137
				2,1%	2,8%	2,5%
		Moderately	Count	333	581	914
				15,9%	17,7%	17,0%
		Very or completely	Count	1722	2614	4336
				82,0%	79,5%	80,5%
	Total		Count	2099	3288	5387
				100,0%	100,0%	100,0%

Table A 4: Vision of a group, its clearness and relevance * Simplified position of scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	Vision of a group, its clearness and relevance	Not at all or slightly	Count	0	1	3	2	6
				0,0%	,5%	2,2%	5,1%	1,6%
		Moderately	Count	1	26	22	9	58
				6,7%	13,8%	16,1%	23,1%	15,3%

		Very or completely	Count	14	161	112	28	315
				93,3%	85,6%	81,8%	71,8%	83,1%
	Total		Count	15	188	137	39	379
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	Vision of a group, its clearness and relevance	Not at all or slightly	Count	1	30	21	0	52
				1,5%	4,1%	5,3%	0,0%	4,0%
		Moderately	Count	5	176	74	11	266
				7,5%	23,8%	18,6%	11,8%	20,5%
		Very or completely	Count	61	533	303	82	979
				91,0%	72,1%	76,1%	88,2%	75,5%
	Total		Count	67	739	398	93	1297
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	Vision of a group, its clearness and relevance	Not at all or slightly	Count	3	11	17	10	41
				1,0%	4,8%	3,7%	1,5%	2,5%
		Moderately	Count	14	69	107	96	286
				4,7%	30,3%	23,4%	14,3%	17,2%
		Very or completely	Count	284	148	333	566	1331
				94,4%	64,9%	72,9%	84,2%	80,3%
	Total		Count	301	228	457	672	1658
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Vision of a group, its clearness and relevance	Not at all or slightly	Count	4	42	41	12	99
				1,0%	3,6%	4,1%	1,5%	3,0%
		Moderately	Count	20	271	203	116	610
				5,2%	23,5%	20,5%	14,4%	18,3%
		Very or completely	Count	359	842	748	676	2625
				93,7%	72,9%	75,4%	84,1%	78,7%
	Total		Count	383	1155	992	804	3334
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 5: Task orientation of a group * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Task orientation of a group	Not at all or slightly	Count	257	483	740
			13,4%	15,2%	14,5%
	Moderately	Count	570	789	1359
			29,7%	24,9%	26,7%
	Very or completely	Count	1093	1900	2993
			56,9%	59,9%	58,8%
Total		Count	1920	3172	5092
			100,0%	100,0%	100,0%

Table A 6: Task orientation of a group * Simplified position of scientific staff

			Simplified position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Task orientation of a group	Not at all or slightly	Count	12	171	207	93	483
			3,2%	15,4%	21,5%	12,0%	15,0%
	Moderately	Count	44	326	257	213	840
			11,8%	29,4%	26,7%	27,4%	26,1%
	Very or completely	Count	318	611	497	470	1896
			85,0%	55,1%	51,7%	60,6%	58,9%
Total		Count	374	1108	961	776	3219
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 7: Group identifying flaws * Simplified position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Does the group try to identify and address its own flaws and shortcomings, so as to become more effective in what it does?	Not at all or slightly	Count	18	208	249	126	601
			4,7%	18,2%	25,5%	15,8%	18,2%
	Moderately	Count	58	313	251	213	835
			15,3%	27,4%	25,7%	26,6%	25,3%
	Very or completely	Count	303	622	476	461	1862
			79,9%	54,4%	48,8%	57,6%	56,5%
Total		Count	379	1143	976	800	3298
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 8: Task orientation of a group * Section

			Section					Total
			Biology and medicine	Chemistry, physics and technology	Humanities and social sciences	Other	Two sections	
Task orientation of a group	Not at all or slightly	Count	351	382	152	82	18	985
			15,8%	13,5%	17,1%	15,9%	16,1%	15,0%
	Moderately	Count	631	713	278	162	30	1814
			28,5%	25,1%	31,2%	31,3%	26,8%	27,6%
	Very or completely	Count	1235	1741	460	273	64	3773
			55,7%	61,4%	51,7%	52,8%	57,1%	57,4%
Total		Count	2217	2836	890	517	112	6572
			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table A 9: Are group members encouraged to question the basis of what the group is doing? * Section

			Section					Total
			Biology and medicine	Chemistry, physics and technology	Humanities and social sciences	Other	Two sections	
Are group members encouraged to question the basis of what the group is doing?	Not at all or slightly	Count	507	549	235	116	21	1428
			22,1%	18,6%	25,4%	21,6%	18,6%	20,9%
	Moderately	Count	574	659	244	132	32	1641
			25,0%	22,3%	26,4%	24,5%	28,3%	24,0%
	Very or completely	Count	1213	1751	446	290	60	3760
			52,9%	59,2%	48,2%	53,9%	53,1%	55,1%
Total		Count	2294	2959	925	538	113	6829
			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table A 10: Participation safety of a group * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Participation safety of a group	Disagree or strongly disagree	Count	201	247	448
			9,3%	7,4%	8,1%
	Neither agree nor disagree	Count	411	496	907
			18,9%	14,9%	16,5%
	Agree or strongly agree	Count	1557	2591	4148
			71,8%	77,7%	75,4%
Total		Count	2169	3334	5503
			100,0%	100,0%	100,0%

Table A 11: Everyone's opinion is listened to even if it is unpopular. * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Everyone's opinion is listened to even if it is unpopular.	Disagree or strongly disagree	Count	16	142	167	93	418
			4,2%	12,3%	16,8%	11,5%	12,5%
	Neither agree nor disagree	Count	15	163	155	102	435
			3,9%	14,1%	15,6%	12,6%	13,0%
	Agree or strongly agree	Count	349	848	672	613	2482
			91,8%	73,5%	67,6%	75,9%	74,4%
Total		Count	380	1153	994	808	3335
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 12: People feel understood and accepted by each other. * Gender

			Please indicate your gender.			Total
			Female	Male	No answer / Other gender	
People feel understood and accepted by each other.	Disagree or strongly disagree	Count	438	339	96	873
			14,3%	9,8%	14,2%	12,1%
	Neither agree nor disagree	Count	421	445	106	972
			13,7%	12,8%	15,7%	13,5%
	Agree or strongly agree	Count	2209	2686	472	5367
			72,0%	77,4%	70,0%	74,4%
Total		Count	3068	3470	674	7212
			100,0%	100,0%	100,0%	100,0%

Table A 13: There are real attempts to share information throughout the group. * Gender

			Please indicate your gender.			Total
			Female	Male	No answer / Other gender	
There are real attempts to share information throughout the group.	Disagree or strongly disagree	Count	619	518	124	1261
			20,0%	14,9%	18,3%	17,4%
	Neither agree nor disagree	Count	418	534	125	1077
			13,5%	15,4%	18,5%	14,9%
	Agree or strongly agree	Count	2052	2426	428	4906
			66,4%	69,8%	63,2%	67,7%
Total		Count	3089	3478	677	7244
			100,0%	100,0%	100,0%	100,0%

Table A 14: Everyone's opinion is listened to even if it is unpopular. * Gender

			Please indicate your gender.			Total
			Female	Male	No answer / Other gender	
Everyone's opinion is listened to even if it is unpopular.	Strongly disagree	Count	517	405	102	1024
			16,9%	11,8%	15,2%	14,3%
	Neither	Count	396	421	96	913
			13,0%	12,2%	14,3%	12,7%
	Agree	Count	2140	2620	472	5232
			70,1%	76,0%	70,4%	73,0%
Total		Count	3053	3446	670	7169
			100,0%	100,0%	100,0%	100,0%

Table A 15: People feel understood and accepted by each other. * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
People feel understood and accepted by each other.	Strongly disagree	Count	298	334	632
			13,8%	10,1%	11,5%
	Neither	Count	321	418	739
			14,9%	12,6%	13,5%
	Agree	Count	1536	2567	4103
			71,3%	77,3%	75,0%
Total		Count	2155	3319	5474
			100,0%	100,0%	100,0%

Table A 16: There are real attempts to share information throughout the group. * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
There are real attempts to share information throughout the group.	Strongly disagree	Count	435	494	929
			20,1%	14,8%	16,9%
	Neither	Count	338	509	847
			15,6%	15,3%	15,4%
	Agree	Count	1396	2324	3720
			64,4%	69,9%	67,7%
Total		Count	2169	3327	5496
			100,0%	100,0%	100,0%

Table A 17: Participation safety of a group * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	Participation safety of a group	Disagree or strongly disagree	Count	7	19	26
				6,4%	4,5%	4,9%
		Neither agree nor disagree	Count	14	40	54
				12,7%	9,5%	10,2%
		Agree or strongly agree	Count	89	361	450
				80,9%	86,0%	84,9%
	Total		Count	110	420	530
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	Participation safety of a group	Disagree or strongly disagree	Count	18	98	116
				5,8%	7,7%	7,3%
		Neither agree nor disagree	Count	43	210	253
				13,9%	16,5%	16,0%
			Count	248	967	1215

		Agree or strongly agree		80,3%	75,8%	76,7%
	Total		Count	309	1275	1584
				100,0%	100,0%	100,0%
more than 4 years	Participation safety of a group	Disagree or strongly disagree	Count	173	128	301
				10,0%	7,9%	9,0%
		Neither agree nor disagree	Count	349	242	591
				20,2%	14,9%	17,6%
		Agree or strongly agree	Count	1207	1250	2457
				69,8%	77,2%	73,4%
	Total		Count	1729	1620	3349
				100,0%	100,0%	100,0%
Total	Participation safety of a group	Disagree or strongly disagree	Count	198	245	443
				9,2%	7,4%	8,1%
		Neither agree nor disagree	Count	406	492	898
				18,9%	14,8%	16,4%
		Agree or strongly agree	Count	1544	2578	4122
				71,9%	77,8%	75,5%
	Total		Count	2148	3315	5463
				100,0%	100,0%	100,0%

Table A 18: Participation safety of a group * Simplified position of scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	Participation safety of a group	Disagree or strongly disagree	Count	0	6	3	3	12
				0,0%	3,2%	2,2%	7,7%	3,2%
		Neither agree nor disagree	Count	0	15	20	3	38
				0,0%	7,9%	14,5%	7,7%	10,0%
		Agree or strongly agree	Count	14	168	115	33	330
				100,0%	88,9%	83,3%	84,6%	86,8%
	Total		Count	14	189	138	39	380
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	Participation safety of a group	Disagree or strongly disagree	Count	3	57	44	3	107
				4,5%	7,7%	10,9%	3,2%	8,2%
		Neither agree nor disagree	Count	4	137	59	12	212
				6,0%	18,4%	14,7%	12,8%	16,2%
		Agree or strongly agree	Count	60	551	299	79	989
				89,6%	74,0%	74,4%	84,0%	75,6%
	Total		Count	67	745	402	94	1308
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	Participation safety of a group	Disagree or strongly disagree	Count	7	29	47	49	132
				2,3%	12,5%	10,2%	7,2%	7,9%
		Neither agree nor disagree	Count	9	39	106	95	249
				3,0%	16,8%	23,1%	14,1%	14,9%

		Agree or strongly agree	Count	283	164	306	532	1285
				94,6%	70,7%	66,7%	78,7%	77,1%
	Total		Count	299	232	459	676	1666
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Participation safety of a group	Disagree or strongly disagree	Count	10	92	94	55	251
				2,6%	7,9%	9,4%	6,8%	7,5%
		Neither agree nor disagree	Count	13	191	185	110	499
				3,4%	16,4%	18,5%	13,6%	14,9%
		Agree or strongly agree	Count	357	883	720	644	2604
				93,9%	75,7%	72,1%	79,6%	77,6%
	Total		Count	380	1166	999	809	3354
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 19: Support of innovation of a group * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Support of innovation of a group	Disagree or strongly disagree	Count	321	324	645
			16,0%	10,1%	12,3%
	Neither agree nor disagree	Count	499	747	1246
			24,8%	23,2%	23,8%
	Agree or strongly agree	Count	1189	2147	3336
			59,2%	66,7%	63,8%
Total		Count	2009	3218	5227
			100,0%	100,0%	100,0%

Table A 20: Support of innovation of a group * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Support of innovation of a group	Disagree or strongly disagree	Count	11	120	134	66	331
			2,9%	10,6%	13,7%	8,5%	10,2%
	Neither agree nor disagree	Count	36	314	237	176	763
			9,5%	27,8%	24,2%	22,8%	23,4%
	Agree or strongly agree	Count	332	694	608	531	2165
			87,6%	61,5%	62,1%	68,7%	66,4%
Total		Count	379	1128	979	773	3259
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 21: Support of innovation of a group * Section

			Section					Total
			Biology and medicine	Chemistry, physics and technology	Humanities and social sciences	Other	Two sections	
Support of innovation of a group	Disagree or strongly disagree	Count	348	296	152	98	12	906
			15,3%	10,1%	16,8%	19,0%	10,6%	13,5%
	Neither agree nor disagree	Count	560	676	216	142	29	1623
			24,6%	23,1%	23,9%	27,6%	25,7%	24,1%
	Agree or strongly agree	Count	1366	1949	537	275	72	4199
			60,1%	66,7%	59,3%	53,4%	63,7%	62,4%
Total		Count	2274	2921	905	515	113	6728
			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table A 22: Employee-orientation of a leader * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Employee-orientation of a leader	Not at all or slightly	Count	193	163	356
			7,6%	4,7%	5,9%
	Moderately	Count	371	432	803
			14,6%	12,4%	13,3%
	Very or completely	Count	1982	2899	4881
			77,8%	83,0%	80,8%
Total		Count	2546	3494	6040
			100,0%	100,0%	100,0%

Table A 23: Employee-orientation of a leader * Age range

			Age range				Total
			15 - 29	30 - 44	45 - 59	60 and older	
Employee-orientation of a leader	Not at all or slightly	Count	50	191	183	32	456
			3,0%	6,2%	7,9%	7,3%	6,1%
	Moderately	Count	173	408	353	72	1006
			10,3%	13,3%	15,2%	16,5%	13,4%
	Very or completely	Count	1457	2468	1779	332	6036
			86,7%	80,5%	76,8%	76,1%	80,5%
Total		Count	1680	3067	2315	436	7498
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 24: Employee-orientation of a leader * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	Employee-orientation of a leader	Not at all or slightly	Count	6	6	12
				4,3%	1,4%	2,1%
		Moderately	Count	8	30	38
				5,7%	6,8%	6,6%
		Very or completely	Count	126	403	529
				90,0%	91,8%	91,4%
	Total		Count	140	439	579
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	Employee-orientation of a leader	Not at all or slightly	Count	24	62	86
				6,2%	4,6%	4,9%
		Moderately	Count	35	143	178
				9,0%	10,6%	10,2%
		Very or completely	Count	329	1148	1477
				84,8%	84,8%	84,8%
	Total		Count	388	1353	1741
				100,0%	100,0%	100,0%
more than 4 years	Employee-orientation of a leader	Not at all or slightly	Count	158	92	250
				7,9%	5,5%	6,8%
		Moderately	Count	324	257	581
				16,2%	15,3%	15,8%
		Very or completely	Count	1512	1333	2845
				75,8%	79,3%	77,4%
	Total		Count	1994	1682	3676
				100,0%	100,0%	100,0%
Total	Employee-orientation of a leader	Not at all or slightly	Count	188	160	348
				7,5%	4,6%	5,8%
		Moderately	Count	367	430	797
				14,6%	12,4%	13,3%
		Very or completely	Count	1967	2884	4851
				78,0%	83,0%	80,9%
	Total		Count	2522	3474	5996
				100,0%	100,0%	100,0%

Table A 25: Employee-orientation of a leader * Simplified Position of scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	Employee-orientation of a leader	Not at all or slightly	Count	1	1	2	2	6
				8,3%	,5%	1,4%	4,5%	1,5%
		Moderately	Count	1	11	14	5	31
				8,3%	5,3%	9,5%	11,4%	7,6%

		Very or completely	Count	10	195	131	37	373
				83,3%	94,2%	89,1%	84,1%	91,0%
	Total		Count	12	207	147	44	410
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	Employee-orientation of a leader	Not at all or slightly	Count	7	37	34	2	80
				11,5%	4,4%	7,6%	1,9%	5,5%
		Moderately	Count	8	91	51	7	157
				13,1%	10,9%	11,4%	6,6%	10,9%
		Very or completely	Count	46	705	362	97	1210
				75,4%	84,6%	81,0%	91,5%	83,6%
	Total		Count	61	833	447	106	1447
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	Employee-orientation of a leader	Not at all or slightly	Count	13	18	27	41	99
				4,6%	7,1%	5,5%	5,6%	5,6%
		Moderately	Count	26	63	83	90	262
				9,2%	24,9%	16,8%	12,2%	14,8%
		Very or completely	Count	244	172	383	605	1404
				86,2%	68,0%	77,7%	82,2%	79,5%
	Total		Count	283	253	493	736	1765
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Employee-orientation of a leader	Not at all or slightly	Count	21	56	63	45	185
				5,9%	4,3%	5,8%	5,1%	5,1%
		Moderately	Count	35	165	148	102	450
				9,8%	12,8%	13,6%	11,5%	12,4%
		Very or completely	Count	300	1072	876	739	2987
				84,3%	82,9%	80,6%	83,4%	82,5%
	Total		Count	356	1293	1087	886	3622
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 26: Change-orientation of a leader * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Change-orientation of a leader	Not at all or slightly	Count	334	210	544
			13,6%	6,1%	9,2%
	Moderately	Count	580	612	1192
			23,5%	17,7%	20,1%
	Very or completely	Count	1550	2635	4185
			62,9%	76,2%	70,7%
Total		Count	2464	3457	5921
			100,0%	100,0%	100,0%

Table A 27: … initiates new projects. * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
… initiates new projects.	Disagree or strongly disagree	Count	327	232	559
			13,6%	6,8%	9,6%
	Neither agree nor disagree	Count	419	371	790
			17,4%	10,8%	13,5%
	Agree or strongly agree	Count	1664	2827	4491
			69,0%	82,4%	76,9%
Total		Count	2410	3430	5840
			100,0%	100,0%	100,0%

Table A 28: … initiates new projects. * Unit of non-scientific staff

			Unit of non-scientific staff				Total
			Administration	Technology and IT	Other services	Two or three units	
… initiates new projects.	Disagree or strongly disagree	Count	218	118	114	12	462
			18,3%	11,6%	12,0%	21,1%	14,4%
	Neither agree nor disagree	Count	234	183	149	7	573
			19,6%	18,0%	15,7%	12,3%	17,8%
	Agree or strongly agree	Count	741	715	688	38	2182
			62,1%	70,4%	72,3%	66,7%	67,8%
Total		Count	1193	1016	951	57	3217
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 29: … experiments with new ways of doing things. * Unit of non-scientific staff

			Unit of non-scientific staff				Total
			Administration	Technology and IT	Other services	Two or three units	
… experiments with new ways of doing things.	Disagree or strongly disagree	Count	289	179	178	12	658
			24,7%	17,8%	19,0%	22,2%	20,8%
	Neither agree nor disagree	Count	274	243	206	13	736
			23,5%	24,1%	22,0%	24,1%	23,2%
	Agree or strongly agree	Count	605	586	552	29	1772
			51,8%	58,1%	59,0%	53,7%	56,0%
Total		Count	1168	1008	936	54	3166
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 30: Change-orientation of a leader * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	Change-orientation of a leader	Not at all or slightly	Count	13	10	23
				9,8%	2,3%	4,1%
		Moderately	Count	24	40	64
				18,0%	9,3%	11,3%
		Very or completely	Count	96	381	477
				72,2%	88,4%	84,6%
	Total		Count	133	431	564
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	Change-orientation of a leader	Not at all or slightly	Count	45	71	116
				12,0%	5,3%	6,7%
		Moderately	Count	70	242	312
				18,7%	18,0%	18,1%
		Very or completely	Count	259	1033	1292
				69,3%	76,7%	75,1%
	Total		Count	374	1346	1720
				100,0%	100,0%	100,0%
more than 4 years	Change-orientation of a leader	Not at all or slightly	Count	272	128	400
				14,0%	7,7%	11,1%
		Moderately	Count	480	326	806
				24,8%	19,6%	22,4%
		Very or completely	Count	1186	1207	2393
				61,2%	72,7%	66,5%
	Total		Count	1938	1661	3599
				100,0%	100,0%	100,0%
Total	Change-orientation of a leader	Not at all or slightly	Count	330	209	539
				13,5%	6,1%	9,2%
		Moderately	Count	574	608	1182
				23,5%	17,7%	20,1%
		Very or completely	Count	1541	2621	4162
				63,0%	76,2%	70,7%
	Total		Count	2445	3438	5883
				100,0%	100,0%	100,0%

Table A 31: Change-orientation of a leader * Simplified Position of scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	Change-orientation of a leader	Not at all or slightly	Count	0	3	2	5	10
				0,0%	1,5%	1,4%	11,4%	2,5%
		Moderately	Count	1	15	20	2	38
				8,3%	7,3%	13,7%	4,5%	9,3%

		Very or completely	Count	11	187	124	37	359
				91,7%	91,2%	84,9%	84,1%	88,2%
	Total		Count	12	205	146	44	407
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	Change-orientation of a leader	Not at all or slightly	Count	4	49	34	2	89
				6,8%	5,9%	7,6%	1,9%	6,2%
		Moderately	Count	5	165	85	17	272
				8,5%	19,9%	19,1%	16,3%	18,9%
		Very or completely	Count	50	615	326	85	1076
				84,7%	74,2%	73,3%	81,7%	74,9%
	Total		Count	59	829	445	104	1437
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	Change-orientation of a leader	Not at all or slightly	Count	15	36	31	52	134
				5,4%	14,3%	6,3%	7,2%	7,7%
		Moderately	Count	35	52	106	146	339
				12,7%	20,7%	21,7%	20,1%	19,4%
		Very or completely	Count	226	163	352	529	1270
				81,9%	64,9%	72,0%	72,8%	72,9%
	Total		Count	276	251	489	727	1743
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Change-orientation of a leader	Not at all or slightly	Count	19	88	67	59	233
				5,5%	6,8%	6,2%	6,7%	6,5%
		Moderately	Count	41	232	211	165	649
				11,8%	18,1%	19,5%	18,9%	18,1%
		Very or completely	Count	287	965	802	651	2705
				82,7%	75,1%	74,3%	74,4%	75,4%
	Total		Count	347	1285	1080	875	3587
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 32: ...sees possibilities rather than problems * Simplified position of scientific staff * Working time

Simplified Position of scientific staff				How long have you been working for the Max Planck Society?			Total
				1 year and less	1 year and more, less than 4 years	more than 4 years	
Director, research group leader	… sees possibilities rather than problems.	Disagree or strongly disagree	Count	0	3	19	22
				0,0%	5,0%	6,9%	6,3%
		Neither agree nor disagree	Count	0	8	49	57
				0,0%	13,3%	17,7%	16,4%
		Agree or strongly agree	Count	11	49	209	269
				100,0%	81,7%	75,5%	77,3%
	Total		Count	11	60	277	348
				100,0%	100,0%	100,0%	100,0%
Doctoral candidate	… sees possibilities rather than problems.	Disagree or strongly disagree	Count	7	76	39	122
				3,5%	9,3%	15,7%	9,7%
		Neither agree nor disagree	Count	14	107	46	167
				7,0%	13,1%	18,5%	13,2%
			Count	180	632	163	975

		Agree or strongly agree		89,6%	77,5%	65,7%	77,1%
	Total		Count	201	815	248	1264
				100,0%	100,0%	100,0%	100,0%
Postdoc	… sees possibilities rather than problems.	Disagree or strongly disagree	Count	11	47	33	91
				7,6%	10,7%	6,8%	8,5%
		Neither agree nor disagree	Count	14	60	92	166
				9,7%	13,6%	18,9%	15,5%
		Agree or strongly agree	Count	120	333	361	814
				82,8%	75,7%	74,3%	76,0%
	Total		Count	145	440	486	1071
				100,0%	100,0%	100,0%	100,0%
Other research associates employed	… sees possibilities rather than problems.	Disagree or strongly disagree	Count	1	6	66	73
				2,3%	5,8%	9,2%	8,5%
		Neither agree nor disagree	Count	8	13	110	131
				18,6%	12,6%	15,4%	15,2%
		Agree or strongly agree	Count	34	84	540	658
				79,1%	81,6%	75,4%	76,3%
	Total		Count	43	103	716	862
				100,0%	100,0%	100,0%	100,0%
Total	… sees possibilities rather than problems.	Disagree or strongly disagree	Count	19	132	157	308
				4,8%	9,3%	9,1%	8,7%
		Neither agree nor disagree	Count	36	188	297	521
				9,0%	13,3%	17,2%	14,7%
		Agree or strongly agree	Count	345	1098	1273	2716
				86,3%	77,4%	73,7%	76,6%
	Total		Count	400	1418	1727	3545
				100,0%	100,0%	100,0%	100,0%

Table A 33: Structure-orientation of a leader * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Structure-orientation of a leader	Not at all or slightly	Count	470	681	1151
			18,9%	19,8%	19,4%
	Moderately	Count	860	1433	2293
			34,7%	41,6%	38,7%
	Very or completely	Count	1151	1332	2483
			46,4%	38,7%	41,9%
Total		Count	2481	3446	5927
			100,0%	100,0%	100,0%

Table A 34: … is very rigid or exacting about plans being followed.* Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
… is very rigid or exacting about plans being followed.	Disagree or strongly disagree	Count	610	1134	1744
			25,4%	33,4%	30,1%
	Neither agree nor disagree	Count	688	1193	1881
			28,7%	35,2%	32,5%
	Agree or strongly agree	Count	1100	1066	2166
			45,9%	31,4%	37,4%
Total		Count	2398	3393	5791
			100,0%	100,0%	100,0%

Table A 35: … gives clear instructions. * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
… gives clear instructions.	Disagree or strongly disagree	Count	638	854	1492
			25,6%	24,8%	25,1%
	Neither agree nor disagree	Count	577	948	1525
			23,1%	27,5%	25,7%
	Agree or strongly agree	Count	1278	1640	2918
			51,3%	47,6%	49,2%
Total		Count	2493	3442	5935
			100,0%	100,0%	100,0%

Table A 36: … plans carefully. * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
… plans carefully.	Disagree or strongly disagree	Count	42	293	217	168	720
			12,1%	23,2%	20,3%	19,4%	20,3%
	Neither agree nor disagree	Count	69	309	239	168	785
			19,9%	24,5%	22,4%	19,4%	22,2%
	Agree or strongly agree	Count	236	660	613	529	2038
			68,0%	52,3%	57,3%	61,2%	57,5%
Total		Count	347	1262	1069	865	3543
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 37: Structure-orientation of a leader * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	Structure-orientation of a leader	Not at all or slightly	Count	19	49	68
				13,8%	11,4%	12,0%
		Moderately	Count	46	168	214
				33,3%	39,3%	37,8%
		Very or completely	Count	73	211	284
				52,9%	49,3%	50,2%
	Total		Count	138	428	566
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	Structure-orientation of a leader	Not at all or slightly	Count	49	271	320
				12,9%	20,3%	18,6%
		Moderately	Count	124	589	713
				32,7%	44,1%	41,6%
		Very or completely	Count	206	477	683
				54,4%	35,7%	39,8%
	Total		Count	379	1337	1716
				100,0%	100,0%	100,0%
more than 4 years	Structure-orientation of a leader	Not at all or slightly	Count	396	358	754
				20,4%	21,5%	20,9%
		Moderately	Count	681	670	1351
				35,1%	40,3%	37,5%
		Very or completely	Count	863	634	1497
				44,5%	38,1%	41,6%
	Total		Count	1940	1662	3602
				100,0%	100,0%	100,0%
Total	Structure-orientation of a leader	Not at all or slightly	Count	464	678	1142
				18,9%	19,8%	19,4%
		Moderately	Count	851	1427	2278
				34,6%	41,6%	38,7%
		Very or completely	Count	1142	1322	2464
				46,5%	38,6%	41,9%
	Total		Count	2457	3427	5884
				100,0%	100,0%	100,0%

Table A 38: ... Structure orientation of a leader * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	Structure-orientation of a leader	Not at all or slightly	Count	3	23	22	6	54
				25,0%	11,4%	15,2%	13,6%	13,4%
		Moderately	Count	1	88	58	11	158
				8,3%	43,6%	40,0%	25,0%	39,2%
		Very or completely	Count	8	91	65	27	191
				66,7%	45,0%	44,8%	61,4%	47,4%
	Total		Count	12	202	145	44	403
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	Structure-orientation of a leader	Not at all or slightly	Count	4	194	71	15	284
				6,6%	23,6%	16,1%	14,4%	19,9%
		Moderately	Count	30	352	198	45	625
				49,2%	42,8%	44,9%	43,3%	43,7%
		Very or completely	Count	27	277	172	44	520
				44,3%	33,7%	39,0%	42,3%	36,4%
	Total		Count	61	823	441	104	1429
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	Structure-orientation of a leader	Not at all or slightly	Count	37	82	117	148	384
				13,2%	32,8%	24,1%	20,3%	22,0%
		Moderately	Count	118	94	196	288	696
				42,1%	37,6%	40,4%	39,5%	39,9%
		Very or completely	Count	125	74	172	293	664
				44,6%	29,6%	35,5%	40,2%	38,1%
	Total		Count	280	250	485	729	1744
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Structure-orientation of a leader	Not at all or slightly	Count	44	299	210	169	722
				12,5%	23,5%	19,6%	19,3%	20,2%
		Moderately	Count	149	534	452	344	1479
				42,2%	41,9%	42,2%	39,2%	41,4%
		Very or completely	Count	160	442	409	364	1375
				45,3%	34,7%	38,2%	41,5%	38,5%
	Total		Count	353	1275	1071	877	3576
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 39: Structure-orientation of a leader * Nationality * Scientific or non scientific staff

Scientific or non-scientific staff with employment contract				Nationality				Total
				German	Other EU country	Non-EU country	Two nationalities	
Non-scientific staff	Structure-orientation of a leader	Not at all or slightly	Count	400	6	11	1	418
				18,9%	18,8%	15,9%	5,3%	18,7%
		Moderately	Count	731	13	29	8	781
				34,5%	40,6%	42,0%	42,1%	34,9%
		Very or completely	Count	990	13	29	10	1042
				46,7%	40,6%	42,0%	52,6%	46,5%
	Total		Count	2121	32	69	19	2241
				100,0%	100,0%	100,0%	100,0%	100,0%
Scientific staff	Structure-orientation of a leader	Not at all or slightly	Count	410	111	126	11	658
				22,3%	15,0%	19,2%	18,0%	20,0%
		Moderately	Count	748	280	297	30	1355
				40,8%	37,8%	45,3%	49,2%	41,1%
		Very or completely	Count	677	350	233	20	1280
				36,9%	47,2%	35,5%	32,8%	38,9%
	Total		Count	1835	741	656	61	3293
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Structure-orientation of a leader	Not at all or slightly	Count	810	117	137	12	1076
				20,5%	15,1%	18,9%	15,0%	19,4%
		Moderately	Count	1479	293	326	38	2136
				37,4%	37,9%	45,0%	47,5%	38,6%
		Very or completely	Count	1667	363	262	30	2322
				42,1%	47,0%	36,1%	37,5%	42,0%
	Total		Count	3956	773	725	80	5534
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 40: Support of a leader as a mentor * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Support of a leader as a mentor	Not at all or slightly	Count	858	774	1632
			39,7%	24,0%	30,3%
	Moderately	Count	545	856	1401
			25,2%	26,6%	26,0%
	Very or completely	Count	757	1594	2351
			35,0%	49,4%	43,7%
Total		Count	2160	3224	5384
			100,0%	100,0%	100,0%

Table A 41: Support of a leader as a mentor * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Support of a leader as a mentor	Not at all or slightly	Count	73	252	259	217	801
			21,9%	20,8%	25,0%	27,6%	23,8%
	Moderately	Count	73	348	288	225	934
			21,9%	28,8%	27,8%	28,7%	27,7%
	Very or completely	Count	188	610	490	343	1631
			56,3%	50,4%	47,3%	43,7%	48,5%
Total		Count	334	1210	1037	785	3366
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 42: Support of a leader as a mentor * Scientific or non-scientific staff * Gender

Scientific or non-scientific staff				Please indicate your gender.			Total
				Female	Male	No answer / Other gender	
Non-scientific staff	Support of a leader as a mentor	Not at all or slightly	Count	428	318	112	858
				41,3%	36,9%	42,9%	39,7%
		Moderately	Count	260	218	67	545
				25,1%	25,3%	25,7%	25,2%
		Very or completely	Count	349	326	82	757
				33,7%	37,8%	31,4%	35,0%
	Total		Count	1037	862	261	2160
				100,0%	100,0%	100,0%	100,0%
Scientific staff	Support of a leader as a mentor	Not at all or slightly	Count	322	400	52	774
				28,8%	21,1%	24,9%	24,0%
		Moderately	Count	293	499	64	856
				26,2%	26,3%	30,6%	26,6%
		Very or completely	Count	504	997	93	1594
				45,0%	52,6%	44,5%	49,4%
	Total		Count	1119	1896	209	3224
				100,0%	100,0%	100,0%	100,0%
Total	Support of a leader as a mentor	Not at all or slightly	Count	750	718	164	1632
				34,8%	26,0%	34,9%	30,3%
		Moderately	Count	553	717	131	1401
				25,6%	26,0%	27,9%	26,0%
		Very or completely	Count	853	1323	175	2351
				39,6%	48,0%	37,2%	43,7%
	Total		Count	2156	2758	470	5384
				100,0%	100,0%	100,0%	100,0%

Table A 43: ... uses their influence to advance my career. * Scientific or non-scientific staff * Gender

Scientific or non-scientific staff				Please indicate your gender.			Total
				Female	Male	No answer / Other gender	
Non-scientific staff	... uses their influence to advance my career.	Not at all or slightly	Count	491	382	126	999
				47,8%	44,5%	49,4%	46,7%
		Moderately	Count	243	196	56	495
				23,6%	22,8%	22,0%	23,1%
		Very or completely	Count	294	280	73	647
				28,6%	32,6%	28,6%	30,2%
	Total		Count	1028	858	255	2141
				100,0%	100,0%	100,0%	100,0%
Scientific staff	... uses their influence to advance my career.	Not at all or slightly	Count	401	550	72	1023
				36,3%	29,5%	35,6%	32,3%
		Moderately	Count	282	482	58	822
				25,5%	25,9%	28,7%	25,9%
		Very or completely	Count	423	831	72	1326
				38,2%	44,6%	35,6%	41,8%
	Total		Count	1106	1863	202	3171
				100,0%	100,0%	100,0%	100,0%
Total	... uses their influence to advance my career.	Not at all or slightly	Count	892	932	198	2022
				41,8%	34,3%	43,3%	38,1%
		Moderately	Count	525	678	114	1317
				24,6%	24,9%	24,9%	24,8%
		Very or completely	Count	717	1111	145	1973
				33,6%	40,8%	31,7%	37,1%
	Total		Count	2134	2721	457	5312
				100,0%	100,0%	100,0%	100,0%

Table A 44: ... brings me into contact with people who can positively influence my career. * Scientific or non-scientific staff * Gender

Scientific or non-scientific staff				Please indicate your gender.			Total
				Female	Male	No answer / Other gender	
Non-scientific staff	... brings me into contact with people who can positively influence my career.	Not at all or slightly	Count	517	398	123	1038
				53,7%	50,1%	52,6%	52,1%
		Moderately	Count	201	182	52	435
				20,9%	22,9%	22,2%	21,8%
		Very or completely	Count	244	215	59	518
				25,4%	27,0%	25,2%	26,0%
	Total		Count	962	795	234	1991
				100,0%	100,0%	100,0%	100,0%
Scientific staff	... brings me into contact with people who can positively influence my career.	Not at all or slightly	Count	380	536	67	983
				34,4%	28,3%	33,3%	30,7%
		Moderately	Count	250	421	47	718
				22,6%	22,3%	23,4%	22,5%
			Count	474	935	87	1496

		Very or completely		42,9%	49,4%	43,3%	46,8%
	Total		Count	1104	1892	201	3197
				100,0%	100,0%	100,0%	100,0%
Total	... brings me into contact with people who can positively influence my career.	Not at all or slightly	Count	897	934	190	2021
				43,4%	34,8%	43,7%	39,0%
		Moderately	Count	451	603	99	1153
				21,8%	22,4%	22,8%	22,2%
		Very or completely	Count	718	1150	146	2014
				34,8%	42,8%	33,6%	38,8%
	Total		Count	2066	2687	435	5188
				100,0%	100,0%	100,0%	100,0%

Table A 45: Support of a leader as a mentor * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	Support of a leader as a mentor	Not at all or slightly	Count	30	41	71
				29,1%	11,2%	15,1%
		Moderately	Count	20	77	97
				19,4%	21,0%	20,6%
		Very or completely	Count	53	249	302
				51,5%	67,8%	64,3%
	Total		Count	103	367	470
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	Support of a leader as a mentor	Not at all or slightly	Count	107	280	387
				32,0%	22,0%	24,1%
		Moderately	Count	84	346	430
				25,1%	27,1%	26,7%
		Very or completely	Count	143	649	792
				42,8%	50,9%	49,2%
	Total		Count	334	1275	1609
				100,0%	100,0%	100,0%
more than 4 years	Support of a leader as a mentor	Not at all or slightly	Count	712	447	1159
				41,7%	28,6%	35,4%
		Moderately	Count	438	429	867
				25,6%	27,4%	26,5%
		Very or completely	Count	559	688	1247
				32,7%	44,0%	38,1%
	Total		Count	1709	1564	3273
				100,0%	100,0%	100,0%
Total	Support of a leader as a mentor	Not at all or slightly	Count	849	768	1617
				39,6%	24,0%	30,2%
		Moderately	Count	542	852	1394
				25,3%	26,6%	26,0%
		Very or completely	Count	755	1586	2341
				35,2%	49,5%	43,7%
	Total		Count	2146	3206	5352
				100,0%	100,0%	100,0%

Table A 46: Support of a leader as a mentor * Simplified position of scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	Support of a leader as a mentor	Not at all or slightly	Count	1	9	19	10	39
				10,0%	5,2%	15,6%	27,0%	11,4%
		Moderately	Count	2	42	30	7	81
				20,0%	24,4%	24,6%	18,9%	23,8%
		Very or completely	Count	7	121	73	20	221
				70,0%	70,3%	59,8%	54,1%	64,8%
	Total		Count	10	172	122	37	341
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	Support of a leader as a mentor	Not at all or slightly	Count	12	174	107	18	311
				20,0%	22,0%	25,1%	18,8%	22,7%
		Moderately	Count	15	224	113	28	380
				25,0%	28,4%	26,5%	29,2%	27,7%
		Very or completely	Count	33	392	206	50	681
				55,0%	49,6%	48,4%	52,1%	49,6%
	Total		Count	60	790	426	96	1372
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	Support of a leader as a mentor	Not at all or slightly	Count	59	69	132	187	447
				22,4%	28,2%	27,2%	28,8%	27,2%
		Moderately	Count	56	81	144	190	471
				21,3%	33,1%	29,7%	29,3%	28,7%
		Very or completely	Count	148	95	209	272	724
				56,3%	38,8%	43,1%	41,9%	44,1%
	Total		Count	263	245	485	649	1642
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Support of a leader as a mentor	Not at all or slightly	Count	72	252	258	215	797
				21,6%	20,9%	25,0%	27,5%	23,8%
		Moderately	Count	73	347	287	225	932
				21,9%	28,7%	27,8%	28,8%	27,8%
		Very or completely	Count	188	608	488	342	1626
				56,5%	50,4%	47,2%	43,7%	48,5%
	Total		Count	333	1207	1033	782	3355
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 47: Support of a leader as a mentor * Scientific or non scientific staff * Nationality

Scientific or non-scientific staff				Nationality				Total
				German	Other EU country	Non-EU country	Two nationalities	
Non-scientific staff	Support of a leader as a mentor	Not at all or slightly	Count	726	10	26	6	768
				39,4%	34,5%	44,1%	31,6%	39,4%
		Moderately	Count	469	4	15	5	493
				25,4%	13,8%	25,4%	26,3%	25,3%
		Very or completely	Count	648	15	18	8	689
				35,2%	51,7%	30,5%	42,1%	35,3%

	Total		Count	1843	29	59	19	1950
				100,0%	100,0%	100,0%	100,0%	100,0%
Scientific staff	Support of a leader as a mentor	Not at all or slightly	Count	398	173	152	18	741
				23,5%	24,3%	24,6%	29,5%	24,0%
		Moderately	Count	475	156	171	12	814
				28,0%	21,9%	27,6%	19,7%	26,4%
		Very or completely	Count	822	384	296	31	1533
				48,5%	53,9%	47,8%	50,8%	49,6%
	Total		Count	1695	713	619	61	3088
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Support of a leader as a mentor	Not at all or slightly	Count	1124	183	178	24	1509
				31,8%	24,7%	26,3%	30,0%	30,0%
		Moderately	Count	944	160	186	17	1307
				26,7%	21,6%	27,4%	21,3%	25,9%
		Very or completely	Count	1470	399	314	39	2222
				41,5%	53,8%	46,3%	48,8%	44,1%
	Total		Count	3538	742	678	80	5038
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 48: ... supports me in planning my career. * Simplified Position of scientific staff * Nationality

Nationality				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
German	... supports me in planning my career.	Not at all or slightly	Count	53	208	132	212	605
				27,3%	32,6%	32,8%	37,5%	33,6%
		Moderately	Count	39	154	95	150	438
				20,1%	24,1%	23,6%	26,5%	24,3%
		Very or completely	Count	102	277	175	203	757
				52,6%	43,3%	43,5%	35,9%	42,1%
	Total		Count	194	639	402	565	1800
				100,0%	100,0%	100,0%	100,0%	100,0%
Other EU country	... supports me in planning my career.	Not at all or slightly	Count	5	66	78	23	172
				9,4%	25,5%	25,2%	42,6%	25,5%
		Moderately	Count	11	68	55	11	145
				20,8%	26,3%	17,8%	20,4%	21,5%
		Very or completely	Count	37	125	176	20	358
				69,8%	48,3%	57,0%	37,0%	53,0%
	Total		Count	53	259	309	54	675
				100,0%	100,0%	100,0%	100,0%	100,0%
Non-EU country	... supports me in planning my career.	Not at all or slightly	Count	23	73	81	27	204
				31,5%	35,4%	27,9%	25,7%	30,3%
		Moderately	Count	9	46	76	28	159
				12,3%	22,3%	26,2%	26,7%	23,6%
		Very or completely	Count	41	87	133	50	311
				56,2%	42,2%	45,9%	47,6%	46,1%
	Total		Count	73	206	290	105	674

				100,0%	100,0%	100,0%	100,0%	100,0%
Two nationalities	... supports me in planning my career.	Not at all or slightly	Count	3	6	9	4	22
				30,0%	27,3%	52,9%	23,5%	33,3%
		Moderately	Count	2	8	5	2	17
				20,0%	36,4%	29,4%	11,8%	25,8%
		Very or completely	Count	5	8	3	11	27
				50,0%	36,4%	17,6%	64,7%	40,9%
	Total		Count	10	22	17	17	66
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	... supports me in planning my career.	Not at all or slightly	Count	84	353	300	266	1003
				25,5%	31,3%	29,5%	35,9%	31,2%
		Moderately	Count	61	276	231	191	759
				18,5%	24,5%	22,7%	25,8%	23,6%
		Very or completely	Count	185	497	487	284	1453
				56,1%	44,1%	47,8%	38,3%	45,2%
	Total		Count	330	1126	1018	741	3215
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 49: Support of a leader as a mentor * Section

			Section					Total
			Biology and medicine	Chemistry, physics and technology	Humanities and social sciences	Other	Two sections	
Support of a leader as a mentor	Not at all or slightly	Count	786	837	330	215	34	2202
			34,0%	27,6%	30,9%	35,8%	29,6%	30,9%
	Moderately	Count	631	762	297	158	24	1872
			27,3%	25,1%	27,8%	26,3%	20,9%	26,3%
	Very or completely	Count	897	1432	442	228	57	3056
			38,8%	47,2%	41,3%	37,9%	49,6%	42,9%
Total		Count	2314	3031	1069	601	115	7130
			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table A 50: Personal conversation with superior * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	1125	2252	3377
			49,3%	72,5%	62,7%
	No	Count	1156	853	2009
			50,7%	27,5%	37,3%
Total		Count	2281	3105	5386
			100,0%	100,0%	100,0%

Table A 51: Personal conversation with superior * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	226	884	744	511	2365
			73,6%	76,1%	75,5%	63,2%	72,5%
	No	Count	81	278	242	298	899
			26,4%	23,9%	24,5%	36,8%	27,5%
Total		Count	307	1162	986	809	3264
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 52: Personal conversation with superior * Unit of non-scientific staff

			Unit of non-scientific staff				Total
			Administration	Technology and IT	Other services	Two or three units	
In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	670	507	414	27	1618
			58,7%	54,2%	46,0%	50,9%	53,4%
	No	Count	471	429	486	26	1412
			41,3%	45,8%	54,0%	49,1%	46,6%
Total		Count	1141	936	900	53	3030
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 53: Personal conversation with superior * Scientific or non scientific staff * Gender

Scientific or non-scientific staff with employment contract				Please indicate your gender.			Total
				Female	Male	No answer / Other gender	
Non-scientific staff	In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	529	457	139	1125
				46,3%	53,0%	50,5%	49,3%
		No	Count	614	406	136	1156
				53,7%	47,0%	49,5%	50,7%
		Total	Count	1143	863	275	2281
				100,0%	100,0%	100,0%	100,0%
Scientific staff	In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	748	1344	160	2252
				69,0%	74,1%	76,9%	72,5%
		No	Count	336	469	48	853
				31,0%	25,9%	23,1%	27,5%
		Total	Count	1084	1813	208	3105
				100,0%	100,0%	100,0%	100,0%
Total	In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc	Yes	Count	1277	1801	299	3377
				57,3%	67,3%	61,9%	62,7%
		No	Count	950	875	184	2009

	status review) about your work and future goals?			42,7%	32,7%	38,1%	37,3%
	Total		Count	2227	2676	483	5386
				100,0%	100,0%	100,0%	100,0%

Table A 54: Personal conversation with superior * Scientific or non scientific staff * Nationality

Scientific or non-scientific staff with employment contract				Nationality				Total
				German	Other EU country	Non-EU country	Two nationalities	
Non-scientific staff	In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	939	20	33	8	1000
				48,3%	64,5%	54,1%	47,1%	48,7%
		No	Count	1005	11	28	9	1053
				51,7%	35,5%	45,9%	52,9%	51,3%
	Total		Count	1944	31	61	17	2053
				100,0%	100,0%	100,0%	100,0%	100,0%
Scientific staff	In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	1100	544	462	40	2146
				65,9%	83,1%	78,3%	76,9%	72,4%
		No	Count	569	111	128	12	820
				34,1%	16,9%	21,7%	23,1%	27,6%
	Total		Count	1669	655	590	52	2966
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	2039	564	495	48	3146
				56,4%	82,2%	76,0%	69,6%	62,7%
		No	Count	1574	122	156	21	1873
				43,6%	17,8%	24,0%	30,4%	37,3%
	Total		Count	3613	686	651	69	5019
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 55: Personal conversation with superior * Working Time

			How long have you been working for the Max Planck Society?			Total
			1 year and less	1 year and more, less than 4 years	more than 4 years	
In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?	Yes	Count	433	1525	2565	4523
			68,2%	72,2%	58,4%	63,4%
	No	Count	202	586	1825	2613
			31,8%	27,8%	41,6%	36,6%
Total		Count	635	2111	4390	7136
			100,0%	100,0%	100,0%	100,0%

Table A 56: Vision of a group, its clearness and relevance * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Vision of a group, its clearness and relevance	Not at all or slightly	Count	96	96	192
			2,2%	4,1%	2,9%
	Moderately	Count	649	536	1185
			15,0%	22,9%	17,8%
	Very or completely	Count	3590	1709	5299
			82,8%	73,0%	79,4%
Total		Count	4335	2341	6676
			100,0%	100,0%	100,0%

Table A 57: Task orientation of a group * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Task orientation of a group	Not at all or slightly	Count	505	468	973
			12,3%	21,7%	15,5%
	Moderately	Count	1038	737	1775
			25,2%	34,2%	28,3%
		Count	2568	953	3521

Total	Very or completely		62,5%	44,2%	56,2%
		Count	4111	2158	6269
			100,0%	100,0%	100,0%

Table A 58: Participation safety of a group * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Participation safety of a group	Disagree or strongly disagree	Count	287	322	609
			6,6%	13,5%	9,0%
	Neither agree nor disagree	Count	623	502	1125
			14,3%	21,1%	16,7%
	Agree or strongly agree	Count	3455	1555	5010
			79,2%	65,4%	74,3%
Total		Count	4365	2379	6744
			100,0%	100,0%	100,0%

Table A 59: Support of innovation of a group * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Support of innovation of a group	Disagree or strongly disagree	Count	434	477	911
			10,4%	21,4%	14,2%
	Neither agree nor disagree	Count	938	633	1571
			22,4%	28,5%	24,5%
	Agree or strongly agree	Count	2812	1114	3926
			67,2%	50,1%	61,3%
Total		Count	4184	2224	6408
			100,0%	100,0%	100,0%

Table A 60: Employee-orientation of a leader * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Employee-orientation of a leader	Not at all or slightly	Count	200	277	477
			4,1%	9,9%	6,2%
	Moderately	Count	532	566	1098
			10,8%	20,2%	14,2%
	Very or completely	Count	4188	1959	6147
			85,1%	69,9%	79,6%
Total		Count	4920	2802	7722
			100,0%	100,0%	100,0%

Table A 61: Change-orientation of a leader * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Change-orientation of a leader	Not at all or slightly	Count	291	464	755
			6,0%	17,1%	10,0%
	Moderately	Count	808	789	1597
			16,7%	29,1%	21,1%
	Very or completely	Count	3748	1462	5210
			77,3%	53,8%	68,9%
Total		Count	4847	2715	7562
			100,0%	100,0%	100,0%

Table A 62: Structure-orientation of a leader * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Structure-orientation of a leader	Not at all or slightly	Count	723	759	1482
			15,0%	27,9%	19,6%
	Moderately	Count	1832	1072	2904
			37,9%	39,4%	38,4%
	Very or completely	Count	2280	891	3171
			47,2%	32,7%	42,0%
Total		Count	4835	2722	7557
			100,0%	100,0%	100,0%

Table A 63: Support of a leader as a mentor * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Support of a leader as a mentor	Not at all or slightly	Count	956	1248	2204
			21,3%	50,4%	31,7%
	Moderately	Count	1132	669	1801
			25,2%	27,0%	25,9%
	Very or completely	Count	2398	557	2955
			53,5%	22,5%	42,5%
Total		Count	4486	2474	6960
			100,0%	100,0%	100,0%

Table A 64: Organizational commitment towards the institute/facility * Personal conversation with superior

			In 2018, did you have a personal conversation with your superior (i.e. a one-on-one meeting, e.g. an annual employee interview or postdoc status review) about your work and future goals?		Total
			Yes	No	
Organizational commitment towards the institute/facility of a respondent	Disagree or strongly disagree	Count	130	122	252
			4,2%	6,0%	4,9%
	Neither agree nor disagree	Count	351	297	648
			11,4%	14,6%	12,7%
	Agree or strongly agree	Count	2597	1616	4213
			84,4%	79,4%	82,4%
Total		Count	3078	2035	5113
			100,0%	100,0%	100,0%

Table A 65: I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility.

		Frequency	Percent
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility.	Disagree or strongly disagree	511	5,9%
	Neither agree nor disagree	845	9,7%
	Agree or strongly agree	7326	84,4%
	Total	8682	100,0%

Table A 66: Proud oft he institute/facility

		Frequency	Percent
I am proud to tell others that I am part of my institute or facility.	Disagree or strongly disagree	641	7,4%
	Neither agree nor disagree	1435	16,6%
	Agree or strongly agree	6594	76,1%
	Total	8670	100,0%

Table A 67: Accepting any changes

		Frequency	Percent
I would accept almost any changes in my job or duties just to be able to continue working for my institute or facility.	Disagree or strongly disagree	4659	54,5%
	Neither agree nor disagree	1858	21,7%
	Agree or strongly agree	2039	23,8%
	Total	8556	100,0%

Table A 68: Great deal of effort * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	10	125	74	30	239
			2,4%	9,7%	6,8%	3,4%	6,5%
	Neither agree nor disagree	Count	18	199	151	57	425
			4,4%	15,4%	13,9%	6,4%	11,6%
	Agree or strongly agree	Count	381	966	863	802	3012
			93,2%	74,9%	79,3%	90,2%	81,9%
Total		Count	409	1290	1088	889	3676
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 69: Accepting any changes * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
I would accept almost any changes in my job or duties just to be able to continue working for my institute or facility.	Disagree or strongly disagree	Count	225	838	643	469	2175
			56,0%	65,1%	59,6%	53,1%	59,6%
	Neither agree nor disagree	Count	96	259	207	221	783
			23,9%	20,1%	19,2%	25,0%	21,5%
	Agree or strongly agree	Count	81	190	228	193	692
			20,1%	14,8%	21,2%	21,9%	19,0%
Total		Count	402	1287	1078	883	3650
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 70: Great deal of effort * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	132	225	357
			5,2%	6,4%	5,9%
	Neither agree nor disagree	Count	221	407	628
			8,7%	11,5%	10,4%
	Agree or strongly agree	Count	2174	2897	5071
			86,0%	82,1%	83,7%
Total		Count	2527	3529	6056
			100,0%	100,0%	100,0%

Table A 71: Proud of institute/facility * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
I am proud to tell others that I am part of my institute or facility.	Disagree or strongly disagree	Count	212	232	444
			8,4%	6,6%	7,3%
	Neither agree nor disagree	Count	449	535	984
			17,8%	15,1%	16,3%
	Agree or strongly agree	Count	1855	2765	4620
			73,7%	78,3%	76,4%
Total		Count	2516	3532	6048
			100,0%	100,0%	100,0%

Table A 72: Accepting any changes * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
I would accept almost any changes in my job or duties just to be able to continue working for my institute or facility.	Disagree or strongly disagree	Count	1240	2031	3271
			50,2%	58,1%	54,8%
	Neither agree nor disagree	Count	541	771	1312
			21,9%	22,0%	22,0%
	Agree or strongly agree	Count	687	696	1383
			27,8%	19,9%	23,2%
Total		Count	2468	3498	5966
			100,0%	100,0%	100,0%

Table A 73: Best of all organizations * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
I consider my institute or facility to be the best out of all possible organizations for which to work.	Disagree or strongly disagree	Count	684	883	1567
			29,4%	25,7%	27,2%
	Neither agree nor disagree	Count	726	969	1695
			31,2%	28,2%	29,4%
	Agree or strongly agree	Count	917	1582	2499
			39,4%	46,1%	43,4%
Total		Count	2327	3434	5761
			100,0%	100,0%	100,0%

Table A 74: Institute/facility motivates * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
My institute or facility motivates and inspires me to do my very best work.	Disagree or strongly disagree	Count	524	541	1065
			21,4%	15,4%	17,9%
	Neither agree nor disagree	Count	636	762	1398
			26,0%	21,7%	23,5%
	Agree or strongly agree	Count	1289	2202	3491
			52,6%	62,8%	58,6%
Total		Count	2449	3505	5954
			100,0%	100,0%	100,0%

Table A 75: Great deal of effort * Age Range

			Please indicate your age range.				Total
			15 - 29	30 - 44	45 - 59	60 and older	
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	153	197	82	15	447
			9,2%	6,4%	3,6%	3,3%	6,0%
	Neither agree nor disagree	Count	235	340	132	22	729
			14,1%	11,1%	5,7%	4,8%	9,7%
	Agree or strongly agree	Count	1280	2538	2095	423	6336
			76,7%	82,5%	90,7%	92,0%	84,3%
Total		Count	1668	3075	2309	460	7512
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 76: Accepting any changes * Age Range

			Please indicate your age range.				Total
			15 - 29	30 - 44	45 - 59	60 and older	
I would accept almost any changes in my job or duties just to be able to continue working for my institute or facility.	Disagree or strongly disagree	Count	1006	1779	1115	203	4103
			60,6%	58,1%	49,6%	46,3%	55,4%
	Neither agree nor disagree	Count	333	641	510	113	1597
			20,1%	20,9%	22,7%	25,8%	21,6%
	Agree or strongly agree	Count	320	642	621	122	1705
			19,3%	21,0%	27,6%	27,9%	23,0%
Total		Count	1659	3062	2246	438	7405
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 77: Great deal of effort * Temporary/permanent contract

			Do you currently have a temporary or permanent employment contract with the Max Planck Society?		Total
			Temporary	Permanent	
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	224	172	396
			7,0%	4,3%	5,5%
	Neither agree nor disagree	Count	423	277	700
			13,3%	6,9%	9,7%
	Agree or strongly agree	Count	2542	3583	6125
			79,7%	88,9%	84,8%
Total		Count	3189	4032	7221
			100,0%	100,0%	100,0%

Table A 78: Great deal of effort * Children

			Do you have children?		Total
			No	Yes	
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	304	159	463
			7,0%	4,7%	6,0%
	Neither agree nor disagree	Count	519	242	761
			11,9%	7,1%	9,8%
	Agree or strongly agree	Count	3525	2999	6524
			81,1%	88,2%	84,2%
Total		Count	4348	3400	7748
			100,0%	100,0%	100,0%

Table A 79: Great deal of effort * Simplified position of scientific staff * Working time

How long have you been working for the Max Planck Society?				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
1 year and less	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	0	10	10	5	25
				0,0%	4,9%	6,8%	11,6%	6,1%
		Neither agree nor disagree	Count	1	25	17	3	46
				6,7%	12,2%	11,6%	7,0%	11,2%
		Agree or strongly agree	Count	14	170	119	35	338
				93,3%	82,9%	81,5%	81,4%	82,6%
	Total		Count	15	205	146	43	409
				100,0%	100,0%	100,0%	100,0%	100,0%
1 year and more, less than 4 years	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	3	84	39	7	133
				4,2%	10,1%	8,7%	6,7%	9,2%
		Neither agree nor disagree	Count	6	135	74	10	225
				8,5%	16,3%	16,6%	9,5%	15,5%
		Agree or strongly agree	Count	62	611	333	88	1094
				87,3%	73,6%	74,7%	83,8%	75,3%
	Total		Count	71	830	446	105	1452
				100,0%	100,0%	100,0%	100,0%	100,0%
more than 4 years	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	7	31	25	18	81
				2,2%	12,3%	5,1%	2,5%	4,5%
		Neither agree nor disagree	Count	11	39	60	44	154
				3,4%	15,5%	12,2%	6,0%	8,6%
		Agree or strongly agree	Count	303	182	407	672	1564
				94,4%	72,2%	82,7%	91,6%	86,9%
	Total		Count	321	252	492	734	1799
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	10	125	74	30	239
				2,5%	9,7%	6,8%	3,4%	6,5%
		Neither agree nor disagree	Count	18	199	151	57	425
				4,4%	15,5%	13,9%	6,5%	11,6%
		Agree or strongly agree	Count	379	963	859	795	2996
				93,1%	74,8%	79,2%	90,1%	81,9%
	Total		Count	407	1287	1084	882	3660
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 80: Great deal of effort * Scientific or non-scientific staff * Working time

How long have you been working for the Max Planck Society?				Scientific or non-scientific staff		Total
				Non-scientific staff	Scientific staff	
1 year and less	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	6	23	29
				4,3%	5,3%	5,1%
		Neither agree nor disagree	Count	9	51	60
				6,5%	11,7%	10,5%
		Agree or strongly agree	Count	124	361	485
				89,2%	83,0%	84,5%
	Total		Count	139	435	574
				100,0%	100,0%	100,0%
1 year and more, less than 4 years	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	20	126	146
				5,2%	9,3%	8,4%
		Neither agree nor disagree	Count	41	208	249
				10,7%	15,3%	14,3%
		Agree or strongly agree	Count	323	1022	1345
				84,1%	75,4%	77,3%
	Total		Count	384	1356	1740
				100,0%	100,0%	100,0%
more than 4 years	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	106	76	182
				5,3%	4,4%	4,9%
		Neither agree nor disagree	Count	168	147	315
				8,5%	8,6%	8,5%
		Agree or strongly agree	Count	1709	1492	3201
				86,2%	87,0%	86,6%
	Total		Count	1983	1715	3698
				100,0%	100,0%	100,0%
Total	I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	132	225	357
				5,3%	6,4%	5,9%
		Neither agree nor disagree	Count	218	406	624
				8,7%	11,6%	10,4%
		Agree or strongly agree	Count	2156	2875	5031
				86,0%	82,0%	83,7%
	Total		Count	2506	3506	6012
				100,0%	100,0%	100,0%

Table A 81: Private life suffers from work * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
It has been difficult for me to fulfill my family/private responsibilities because of the amount of time I spend on my job.	Never/Once or twice	Count	1947	1847	3794
			77,1%	52,6%	62,8%
	Several times a month, week or daily	Count	577	1666	2243
			22,9%	47,4%	37,2%
Total		Count	2524	3513	6037
			100,0%	100,0%	100,0%

Table A 82: Work suffers from private life * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
I have found it difficult to concentrate on my work because of my family/private responsibilities.	Never/Once or twice	Count	2342	2811	5153
			93,6%	80,5%	86,0%
	Several times a month, week or daily	Count	159	679	838
			6,4%	19,5%	14,0%
Total		Count	2501	3490	5991
			100,0%	100,0%	100,0%

Table A 83: Private life suffers from work * Age range

			Please indicate your age range.				Total
			15 - 29	30 - 44	45 - 59	60 and older	
It has been difficult for me to fulfill my family/private responsibilities because of the amount of time I spend on my job.	Never/Once or twice	Count	959	1731	1650	390	4730
			57,8%	56,3%	71,4%	87,4%	63,1%
	Several times a month, week or daily	Count	701	1345	660	56	2762
			42,2%	43,7%	28,6%	12,6%	36,9%
Total		Count	1660	3076	2310	446	7492
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 84: Private life suffers from work * children

			Do you have children?		Total
			No	Yes	
It has been difficult for me to fulfill my family/private responsibilities because of the amount of time I spend on my job.	Never/Once or twice	Count	2641	2276	4917
			60,8%	66,9%	63,5%
	Several times a month, week or daily	Count	1702	1126	2828
			39,2%	33,1%	36,5%
Total		Count	4343	3402	7745
			100,0%	100,0%	100,0%

Table A 85: Private life suffers from work * children<18 combined with children

			No children	Children < 18 years	Total
It has been difficult for me to fulfill my family/private responsibilities because of the amount of time I spend on my job.	Never/Once or twice	Count	2641	1357	3998
			60,7%	60,9%	66,8%
	Several times a month, week or daily	Count	1702	871	2573
			39,3%	39,1%	33,2%
Total		Count	4343	2228	6571
			100,0%	100,0%	100,0%

Table A 86: Work suffers from private life * children <18 combined with children

			No children	Children < 18 years	Total
I have found it difficult to concentrate on my work because of my family/private responsibilities.	Never/Once or twice	Count	3775	1736	5511
			87,8%	78,2%	84,5%
	Several times a month, week or daily	Count	524	485	1009
			12,2%	21,8%	15,5%
Total		Count	4299	2221	6520
			100,0%	100,0%	100,0%

Table A 87: Private life suffers from work * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
It has been difficult for me to fulfill my family/ private responsibilities because of the amount of time I spend on my job.	Never/Once or twice	Count	179	600	557	576	1912
			44,9%	46,4%	51,3%	64,4%	52,1%
	Several times a month, week or daily	Count	220	692	528	318	1758
			55,1%	53,6%	48,7%	35,6%	47,9%
Total		Count	399	1292	1085	894	3670
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 88: Work suffers from private life * Simplified Position of scientific staff

			Simplified Position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
I have found it difficult to concentrate on my work because of my family/private responsibilities.	Never/Once or twice	Count	315	1018	808	781	2922
			78,4%	79,4%	75,4%	88,2%	80,3%
	Several times a month, week or daily	Count	87	264	263	104	718
			21,6%	20,6%	24,6%	11,8%	19,7%
Total		Count	402	1282	1071	885	3640
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 89: Do you have children? * Please indicate your age range. * Scientific or non-scientific staff with employment contract

Scientific or non-scientific staff with employment contract				Please indicate your age range.				Total
				15 - 29	30 - 44	45 - 59	60 and older	
Non-scientific staff	Do you have children?	No	Count	216	360	335	66	977
				93.1%	49.4%	32.7%	34.6%	44.9%
		Yes	Count	16	369	691	125	1201
				6.9%	50.6%	67.3%	65.4%	55.1%
	Total		Count	232	729	1026	191	2178
				100.0%	100.0%	100.0%	100.0%	100.0%
Scientific staff	Do you have children?	No	Count	1066	906	153	35	2160
				97.6%	62.7%	27.3%	26.1%	66.9%
		Yes	Count	26	538	408	99	1071
				2.4%	37.3%	72.7%	73.9%	33.1%
	Total		Count	1092	1444	561	134	3231
				100.0%	100.0%	100.0%	100.0%	100.0%
Total	Do you have children?	No	Count	1282	1266	488	101	3137
				96.8%	58.3%	30.7%	31.1%	58.0%
		Yes	Count	42	907	1099	224	2272
				3.2%	41.7%	69.3%	68.9%	42.0%
	Total		Count	1324	2173	1587	325	5409
				100.0%	100.0%	100.0%	100.0%	100.0%

Table A 90: Responsibility children disadvantage * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	742	624	1366
			73,5%	62,8%	68,2%
	Neither agree nor disagree	Count	120	124	244
			11,9%	12,5%	12,2%
	Agree or strongly agree	Count	148	246	394
			14,7%	24,7%	19,7%
Total		Count	1010	994	2004
			100,0%	100,0%	100,0%

Table A 91: Responsibility children disavantage * Gender

			Please indicate your gender.			Total
			Female	Male	No answer / Other gender	
My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	703	971	161	1835
			58,9%	74,4%	69,1%	67,2%
	Neither agree nor disagree	Count	164	142	26	332
			13,7%	10,9%	11,2%	12,2%
	Agree or strongly agree	Count	327	192	46	565
			27,4%	14,7%	19,7%	20,7%
Total		Count	1194	1305	233	2732
			100,0%	100,0%	100,0%	100,0%

Table A 92: Responsibility children disavantage * Gender * Scientific or non-scientific staff

Scientific or non-scientific staff with employment contract				Please indicate your gender.			Total
				Female	Male	No answer / Other gender	
Non-scientific staff	My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	337	314	91	742
				65,1%	83,7%	77,8%	73,5%
		Neither agree nor disagree	Count	82	29	9	120
				15,8%	7,7%	7,7%	11,9%
		Agree or strongly agree	Count	99	32	17	148
				19,1%	8,5%	14,5%	14,7%
	Total		Count	518	375	117	1010
				100,0%	100,0%	100,0%	100,0%
Scientific staff	My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	138	456	30	624
				47,8%	70,0%	55,6%	62,8%
		Neither agree nor disagree	Count	33	81	10	124
				11,4%	12,4%	18,5%	12,5%
		Agree or strongly agree	Count	118	114	14	246
				40,8%	17,5%	25,9%	24,7%
	Total		Count	289	651	54	994
				100,0%	100,0%	100,0%	100,0%
Total	My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	475	770	121	1366
				58,9%	75,0%	70,8%	68,2%
		Neither agree nor disagree	Count	115	110	19	244
				14,3%	10,7%	11,1%	12,2%
		Agree or strongly agree	Count	217	146	31	394
				26,9%	14,2%	18,1%	19,7%
	Total		Count	807	1026	171	2004
				100,0%	100,0%	100,0%	100,0%

Table A 93: Less parental leave to avoid disadvantages * Scientific or non-scientific staff * Gender

Scientific or non-scientific staff with employment contract				Please indicate your gender.		Total
				Female	Male	
Non-scientific staff	To avoid putting myself at a professional disadvantage, I took less parental leave than I would have wanted.	Disagree or strongly disagree	Count	195	104	299
				73,6%	72,7%	73,3%
		Neither agree nor disagree	Count	18	15	33
				6,8%	10,5%	8,1%
		Agree or strongly agree	Count	52	24	76
				19,6%	16,8%	18,6%
	Total		Count	265	143	408
				100,0%	100,0%	100,0%
Scientific staff	To avoid putting myself at a professional disadvantage, I took less parental leave than I would have wanted.	Disagree or strongly disagree	Count	78	105	183
				44,3%	52,0%	48,4%
		Neither agree nor disagree	Count	18	24	42
				10,2%	11,9%	11,1%
			Count	80	73	153

		Agree or strongly agree		45,5%	36,1%	40,5%
	Total		Count	176	202	378
				100,0%	100,0%	100,0%
Total	To avoid putting myself at a professional disadvantage, I took less parental leave than I would have wanted.	Disagree or strongly disagree	Count	273	209	482
				61,9%	60,6%	61,3%
		Neither agree nor disagree	Count	36	39	75
				8,2%	11,3%	9,5%
		Agree or strongly agree	Count	132	97	229
				29,9%	28,1%	29,1%
	Total		Count	441	345	786
				100,0%	100,0%	100,0%

Table A 94: Disadvantages because responsibilities for children * Simplified position scientific staff * Gender * Nationality

Nationality				Simplified Position of scientific staff (PhDs employed and funded and IMPRS, Postdocs employed and funded)				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
German	My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	14	6	22	67	109
				51,9%	33,3%	41,5%	57,3%	50,7%
		Neither agree nor disagree	Count	2	6	8	12	28
				7,4%	33,3%	15,1%	10,3%	13,0%
		Agree or strongly agree	Count	11	6	23	38	78
				40,7%	33,3%	43,4%	32,5%	36,3%
	Total		Count	27	18	53	117	215
				100,0%	100,0%	100,0%	100,0%	100,0%
Other EU country	My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	5	1	8	2	16
				41,7%	14,3%	27,6%	28,6%	29,1%
		Neither agree nor disagree	Count	2	2	2	1	7
				16,7%	28,6%	6,9%	14,3%	12,7%
		Agree or strongly agree	Count	5	4	19	4	32
				41,7%	57,1%	65,5%	57,1%	58,2%
	Total		Count	12	7	29	7	55
				100,0%	100,0%	100,0%	100,0%	100,0%
Non-EU country	My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree	Count	10	3	7	10	30
				83,3%	50,0%	28,0%	50,0%	47,6%
		Neither agree nor disagree	Count	1	0	1	2	4
				8,3%	0,0%	4,0%	10,0%	6,3%
		Agree or strongly agree	Count	1	3	17	8	29
				8,3%	50,0%	68,0%	40,0%	46,0%
	Total		Count	12	6	25	20	63
				100,0%	100,0%	100,0%	100,0%	100,0%
Total			Count	29	10	37	79	155

My responsibilities towards my children have put me at a disadvantage in my career at my institute or facility.	Disagree or strongly disagree		56,9%	32,3%	34,6%	54,9%	46,5%
	Neither agree nor disagree	Count	5	8	11	15	39
			9,8%	25,8%	10,3%	10,4%	11,7%
	Agree or strongly agree	Count	17	13	59	50	139
			33,3%	41,9%	55,1%	34,7%	41,7%
Total		Count	51	31	107	144	333
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 95: Equal Opportunities

		Frequency	Percent
Which of the following statements is most likely to apply to your institute or facility?	The careers of women are promoted more than those of men.	1066	16,3%
	The careers of women are promoted less than those of men.	1245	19,1%
	The careers of women and men are promoted equally.	4210	64,6%
	Total	6521	100,0%

Table A 96: Equal Opportunities * Gender

			Please indicate your gender.			Total
			Female	Male	No answer / Other gender	
Which of the following statements is most likely to apply to your institute or facility?	The careers of women are promoted more than those of men.	Count	163	817	86	1066
			5,9%	25,8%	15,1%	16,3%
	The careers of women are promoted less than those of men.	Count	851	290	104	1245
			30,6%	9,1%	18,3%	19,1%
	The careers of women and men are promoted equally.	Count	1767	2065	378	4210
			63,5%	65,1%	66,5%	64,6%
Total		Count	2781	3172	568	6521
			100,0%	100,0%	100,0%	100,0%

Table A 97: Equal Opportunities * Gender * Scientific or non-scientific staff

Scientific or non-scientific staff with employment contract				Please indicate your gender.			Total
				Female	Male	No answer / Other gender	
Non-scientific staff	Which of the following statements is most likely to apply to your institute or facility?	The careers of women are promoted more than those of men.	Count	42	147	26	215
				4,5%	19,7%	12,2%	11,4%
		The careers of women are promoted less than those of men.	Count	275	66	39	380
				29,7%	8,8%	18,3%	20,1%
		The careers of women and men are promoted equally.	Count	608	535	148	1291
				65,7%	71,5%	69,5%	68,5%
	Total		Count	925	748	213	1886
				100,0%	100,0%	100,0%	100,0%
Scientific staff	Which of the following statements is most likely to apply to your institute or facility?	The careers of women are promoted more than those of men.	Count	71	509	47	627
				7,2%	28,5%	24,1%	21,1%
		The careers of women are	Count	314	167	32	513

		promoted less than those of men.		31,7%	9,3%	16,4%	17,2%
		The careers of women and men are promoted equally.	Count	605	1113	116	1834
				61,1%	62,2%	59,5%	61,7%
	Total		Count	990	1789	195	2974
				100,0%	100,0%	100,0%	100,0%
Total	Which of the following statements is most likely to apply to your institute or facility?	The careers of women are promoted more than those of men.	Count	113	656	73	842
				5,9%	25,9%	17,9%	17,3%
		The careers of women are promoted less than those of men.	Count	589	233	71	893
				30,8%	9,2%	17,4%	18,4%
		The careers of women and men are promoted equally.	Count	1213	1648	264	3125
				63,3%	65,0%	64,7%	64,3%
	Total		Count	1915	2537	408	4860
				100,0%	100,0%	100,0%	100,0%

Table A 98: Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?

		Frequency	Percent
Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	7577	89,9%
	Occasionally, monthly, weekly, or daily	852	10,1%
	Total	8429	100,0%

Table A 99: Have you been subjected to bullying at your current workplace at the Max Planck Society beyond the last 12 months?

		Frequency	Percent
Valid	Never	6849	82,5%
	Occasionally, monthly, weekly, or daily	1454	17,5%
	Total	8303	100,0%

Table A 100: Subjected to bullying during last 12 months * Scientific or non-scientific staff

			Scientific or non-scientific staff		Total
			Non-scientific staff	Scientific staff	
Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	2201	3260	5461
			88,1%	92,5%	90,7%
	Occassionally, monthly, weekly, or daily	Count	296	264	560
			11,9%	7,5%	9,3%
Total		Count	2497	3524	6021
			100,0%	100,0%	100,0%

Table A 101: Subjected to bullying beyond last 12 months * Scientific or non-scientific staff

			Scientific or non-scientific staff with employment contract		Total
			Non-scientific staff	Scientific staff	
Looking back beyond the last 12 months, have you ever been bullied at your workplace at the Max Planck Society?	Never	Count	1900	3038	4938
			77,0%	87,2%	83,0%
	Occassionally, monthly, weekly, or daily	Count	567	444	1011
			23,0%	12,8%	17,0%
Total		Count	2467	3482	5949
			100,0%	100,0%	100,0%

Table A 102: Subjected to bullying during last 12 months * Gender

			Please indicate your gender.		Total
			Female	Male	
Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	3144	3530	6674
			88,0%	92,3%	90,2%
	Occassionally, monthly, weekly, or daily	Count	428	295	723
			12,0%	7,7%	9,8%
Total		Count	3572	3825	7397
			100,0%	100,0%	100,0%

Table A 103: Subjected to bullying during last 12 months * Scientific or non-scientific staff * Nationality

Scientific or non-scientific staff with employment contract				Nationality			Total
				German	Other EU country	Non-EU country	
Non-scientific staff	Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	1870	31	64	1965
				87,7%	88,6%	95,5%	88,0%
		Occassionally, monthly, weekly, or daily	Count	262	4	3	269
				12,3%	11,4%	4,5%	12,0%
		Total	Count	2132	35	67	2234
				100,0%	100,0%	100,0%	100,0%
Scientific staff	Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	1776	664	616	3056
				93,7%	88,9%	93,1%	92,5%
		Occassionally, monthly, weekly, or daily	Count	119	83	46	248
				6,3%	11,1%	6,9%	7,5%
		Total	Count	1895	747	662	3304
				100,0%	100,0%	100,0%	100,0%
Total	Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	3646	695	680	5021
				90,5%	88,9%	93,3%	90,7%
		Occassionally, monthly, weekly, or daily	Count	381	87	49	517
				9,5%	11,1%	6,7%	9,3%
		Total	Count	4027	782	729	5538
				100,0%	100,0%	100,0%	100,0%

Table A 104: Subjected to bullying during last 12 months * Age Range

			Please indicate your age range.				Total
			15 - 29	30 - 44	45 - 59	60 and older	
Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	1559	2784	2008	392	6743
			93,4%	90,5%	87,4%	89,1%	90,1%
	Occassionally, monthly, weekly, or daily	Count	110	291	290	48	739
			6,6%	9,5%	12,6%	10,9%	9,9%
Total		Count	1669	3075	2298	440	7482
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 105: Subjected to bullying during last 12 months * Section

			Section				Total
			Biology and medicine	Chemistry, physics and technology	Humanities and social sciences	Other	
Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Never	Count	2302	3121	1084	595	7102
			88,5%	92,4%	87,9%	89,6%	90,2%
	Occassionally, monthly, weekly, or daily	Count	300	257	149	69	775
			11,5%	7,6%	12,1%	10,4%	9,8%
Total		Count	2602	3378	1233	664	7877
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 106: Over what period of time were you or have you been exposed to the negative behavior described above?

		Frequency	Percent
Over what period of time were you or have you been exposed to the negative behavior described above?	Less than 12 months	315	33,2%
	13 months and more	488	60,8%
	Total	803	100%

Table A 107: Subjected to bullying during last 12 months * Absent from work because of mobbing

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?	Total
			Occassionally, monthly, weekly, or daily	
During the last 12 months, have you been absent from work because you were bullied?	Never	Count	575	575
			70,4%	70,4%
	Occassionally, monthly, weekly, or daily	Count	242	242
			29,6%	29,6%
Total		Count	817	817
			100,0%	100,0%

Table A 108: Group objectives understood by its members * Subjected to bullying during last 12 months

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?		Total
			Never	Occassionally, monthly, weekly, or daily	
To what extent do you think your group's objectives are clearly understood by other members of the group?	Not at all or slightly	Count	340	144	484
			5,3%	20,0%	6,8%
	Moderately	Count	1535	263	1798
			24,0%	36,6%	25,2%
	Very or completely	Count	4533	312	4845
			70,7%	43,4%	68,0%
Total		Count	6408	719	7127
			100,0%	100,0%	100,0%

Table A 109: Group identifies/adresses own flaws * Subjected to bullying during last 12 months

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?		Total
			Never	Occassionally, monthly, weekly, or daily	
Does the group try to identify and address its own flaws and shortcomings, so as to become more effective in what it does?	Not at all or slightly	Count	991	322	1313
			15,8%	44,5%	18,7%
	Moderately	Count	1685	178	1863
			26,8%	24,6%	26,6%
	Very or completely	Count	3615	224	3839
			57,5%	30,9%	54,7%
Total		Count	6291	724	7015
			100,0%	100,0%	100,0%

Table A 110: People work together to develop new ideas * Subjected to bullying during last 12 months

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?		Total
			Never	Occassionally, monthly, weekly, or daily	
People in the group work together to develop and implement new ideas.	Disagree or strongly disagree	Count	884	335	1219
			13,8%	45,8%	17,0%
	Neither agree nor disagree	Count	1150	151	1301
			17,9%	20,6%	18,2%
	Agree or strongly agree	Count	4385	246	4631
			68,3%	33,6%	64,8%
Total		Count	6419	732	7151
			100,0%	100,0%	100,0%

Table A 111: Great deal of effort * Subjected to bullying during last 12 months

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?		Total
			Never	Occassionally, monthly, weekly, or daily	
I am willing to put in a great deal of effort beyond what is necessary, in order to contribute to the success of my institute or facility	Disagree or strongly disagree	Count	397	80	477
			5,3%	9,6%	5,8%
	Neither agree nor disagree	Count	703	95	798
			9,5%	11,4%	9,7%
	Agree or strongly agree	Count	6327	658	6985
			85,2%	79,0%	84,6%
Total		Count	7427	833	8260
			100,0%	100,0%	100,0%

Table A 112: Proud of the institute/facility * Subjected to bullying during last 12 months

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?		Total
			Never	Occassionally, monthly, weekly, or daily	
I am proud to tell others that I am part of my institute or facility.	Disagree or strongly disagree	Count	417	175	592
			5,6%	21,1%	7,2%
	Neither agree nor disagree	Count	1158	198	1356
			15,6%	23,8%	16,4%
	Agree or strongly agree	Count	5856	458	6314
			78,8%	55,1%	76,4%
Total		Count	7431	831	8262
			100,0%	100,0%	100,0%

Table A 113: Motivation to best work * Subjected to bullying during the last 12 months

			Have you been subjected to bullying at your current workplace at the Max Planck Society during the last 12 months?		Total
			Never	Occassionally, monthly, weekly, or daily	
My institute or facility motivates and inspires me to do my very best work.	Disagree or strongly disagree	Count	1136	338	1474
			15,6%	41,0%	18,1%
	Neither agree nor disagree	Count	1703	201	1904
			23,3%	24,4%	23,4%
	Agree or strongly agree	Count	4460	285	4745
			61,1%	34,6%	58,4%
Total		Count	7299	824	8123
			100,0%	100,0%	100,0%

Table A 114: Work related bullying

		Frequency	Percent
Valid	Never	1613	18,8%
	Occasionally,monthly, weekly, or daily	6989	81,3%
	Total	8602	100,0%

Table A 115: Someone witholding information, which affects your performance

		Frequency	Percent
Valid	Never	3288	39,4%
	Occasionally, monthly, weekly, or daily	5060	60,6%
	Total	8348	100,0%

Table A 116: Being ordered to do work below your level of competence

		Frequency	Percent
Valid	Never	4005	48,5%
	Occasionally, monthly, weekly, or daily	4251	51,5%
	Total	8256	100,0%

Table A 117: Hayving your opinions ignored

		Frequency	Percent
Valid	Never	4345	51,9%
	Occasionally, monthly, weekly, or daily	4027	48,1%
	Total	8372	100,0%

Table A 118: Unmanageable workload

		Frequency	Percent
Valid	Never	5797	69,6%
	Occasionally, monthly, weekly, or daily	2533	30,4%
	Total	8330	100,0%

Table A 119: Unreasonable deadlines

		Frequency	Percent
Valid	Never	5903	70,7%
	Occasionally, monthly, weekly, or daily	2441	29,3%
	Total	8344	100,0%

Table A 120: Ignored or excluded

		Frequency	Percent
Valid	Never	5579	67,3%
	Occasionally, monthly, weekly, or daily	2707	32,7%
	Total	8286	100,0%

Table A 121: Gossip/rumors spreaded by others

		Frequency	Percent
Valid	Never	5223	68,2%
	Occasionally, monthly, weekly, or daily	2436	31,8%
	Total	7659	100,0%

Table A 122: Humiliated/ridiculed in connection with work

		Frequency	Percent
Valid	Never	6636	78,9%
	Occasionally, monthly, weekly, or daily	1779	21,1%
	Total	8415	100,0%

Table A 123: Ignored or excluded * Scientific or non-scientific * Nationality

Scientific or non-scientific staff with employment contract				Nationality			Total
				German	Other EU country	Non-EU country	
Non-scientific staff	Being ignored or excluded	Never	Count	1446	16	46	1508
				69,2%	47,1%	69,7%	68,8%
		Occasionally, monthly, weekly or daily	Count	645	18	20	683
				30,8%	52,9%	30,3%	31,2%
	Total		Count	2091	34	66	2191
				100,0%	100,0%	100,0%	100,0%
Scientific staff	Being ignored or excluded	Never	Count	1337	402	413	2152
				71,9%	54,8%	62,8%	66,2%
		Occasionally, monthly, weekly or daily	Count	523	331	245	1099
				28,1%	45,2%	37,2%	33,8%
	Total		Count	1860	733	658	3251
				100,0%	100,0%	100,0%	100,0%
Total	Being ignored or excluded	Never	Count	2783	418	459	3660
				70,4%	54,5%	63,4%	67,3%
		Occasionally, monthly, weekly or daily	Count	1168	349	265	1782
				29,6%	45,5%	36,6%	32,7%
	Total		Count	3951	767	724	5442
				100,0%	100,0%	100,0%	100,0%

Table A 124: Being shouted at or being the target of spontaneous anger

		Frequency	Percent
Valid	Never	6864	81,5%
	Occasionally, monthly, weekly, or daily	1563	18,5%
	Total	8427	100,0%

Table A 125: Intimidating behaviour

		Frequency	Percent
Valid	Never	8001	94,8%
	Occasionally, monthly, weekly, or daily	438	5,2%
	Total	8439	100,0%

Table A 126: Threats of violence/abuse, or actual abuse

		Frequency	Percent
Valid	Never	8368	99,2%
	Occasionally, monthly, weekly, or daily	66	,8%
	Total	8434	100,0%

Table A 127: Cluster 4&5 * Gender

			Cluster		Total
			Cluster 1-3	Cluster 4&5	
Please indicate your gender.	Female	Count	2482	285	2767
			46,1%	51,1%	46,6%
	Male	Count	2897	273	3170
			53,9%	48,9%	53,4%
Total		Count	5379	558	5937
			100,0%	100,0%	100,0%

Table A 128: Cluster 4&5 * Nationality

			Cluster		Total
			Cluster 1-3	Cluster 4&5	
Nationality	German	Count	3933	399	4332
			72,9%	69,9%	72,6%
	Other EU country	Count	700	101	801
			13,0%	17,7%	13,4%
	Non-EU country	Count	759	71	830
			14,1%	12,4%	13,9%
Total		Count	5392	571	5963
			100,0%	100,0%	100,0%

Table A 129: Cluster 4&5 * Scientific or non-scientific staff

			Cluster		Total
			Cluster 1-3	Cluster 4&5	
Scientific or non-scientific staff	Non-scientific staff	Count	1657	204	1861
			38,0%	44,5%	38,6%
	Scientific staff	Count	2709	254	2963
			62,0%	55,5%	61,4%
Total		Count	4366	458	4824
			100,0%	100,0%	100,0%

Table A 130: Cluster 4&5 * Unit of non-scientific staff

			Cluster		Total
			Cluster 1-3	Cluster 4&5	
Unit of non-scientific staff	Administration	Count	832	96	928
			37,1%	35,3%	36,9%
	Technology and IT	Count	737	78	815
			32,8%	28,7%	32,4%
	Other services	Count	639	91	730
			28,5%	33,5%	29,0%
	Two or three units	Count	37	7	44
			1,6%	2,6%	1,7%
Total		Count	2245	272	2517
			100,0%	100,0%	100,0%

Table A 131: Cluster 4&5 * Section

			Cluster 4&5		Total
			Cluster 1-3	Cluster 4&5	
Section	Biology and medicine	Count	1804	253	2057
			31,3%	41,5%	32,3%
	Chemistry, physics and technology	Count	2523	196	2719
			43,8%	32,2%	42,7%
	Humanities and social sciences	Count	893	92	985
			15,5%	15,1%	15,5%
	Other	Count	456	51	507
			7,9%	8,4%	8,0%
	Two sections	Count	85	17	102
			1,5%	2,8%	1,6%
Total		Count	5761	609	6370
			100,0%	100,0%	100,0%

Table A 132: Sexual Discriminiation * Gender * Age Range

Scientific or non-scientific staff with employment contract				Please indicate your age range.				Total
				15 - 29	30 - 44	45 - 59	60 and older	
Non-scientific staff	Experience of sexual discrimination within last 12 months	Never	Count	130	403	572	92	1197
				93,5%	94,8%	96,9%	98,9%	96,0%
		Occassionally, monthly, weekly, or daily	Count	9	22	18	1	50
				6,5%	5,2%	3,1%	1,1%	4,0%
	Total		Count	139	425	590	93	1247
				100,0%	100,0%	100,0%	100,0%	100,0%
Scientific staff	Experience of sexual discrimination within last 12 months	Never	Count	428	475	162	31	1096
				91,8%	90,3%	93,6%	100,0%	91,6%
		Occassionally, monthly, weekly, or daily	Count	38	51	11	0	100
				8,2%	9,7%	6,4%	0,0%	8,4%
	Total		Count	466	526	173	31	1196
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	Experience of sexual discrimination within last 12 months	Never	Count	558	878	734	123	2293
				92,2%	92,3%	96,2%	99,2%	93,9%
		Occassionally, monthly, weekly, or daily	Count	47	73	29	1	150
				7,8%	7,7%	3,8%	,8%	6,1%
	Total		Count	605	951	763	124	2443
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 133: Sexual Discriminiation * Gender * Scientific or non-scientific staff

Please indicate your gender.				Scientific or non-scientific staff with employment contract		Total
				Non-scientific staff	Scientific staff	
Female	Experience of sexual discrimination within last 12 months	Never	Count	1209	1100	2309
				95,9%	91,6%	93,8%
		Occassionally, monthly, weekly, or daily	Count	52	101	153
				4,1%	8,4%	6,2%
	Total		Count	1261	1201	2462
				100,0%	100,0%	100,0%
Male	Experience of sexual discrimination within last 12 months	Never	Count	931	2051	2982
				97,8%	98,3%	98,1%
		Occassionally, monthly, weekly, or daily	Count	21	36	57
				2,2%	1,7%	1,9%
	Total		Count	952	2087	3039
				100,0%	100,0%	100,0%
Total	Experience of sexual discrimination within last 12 months	Never	Count	2140	3151	5291
				96,7%	95,8%	96,2%
		Occassionally, monthly, weekly, or daily	Count	73	137	210
				3,3%	4,2%	3,8%
	Total		Count	2213	3288	5501
				100,0%	100,0%	100,0%

Table A 134: Sexual Discriminiation * Gender * Nationality

Scientific or non-scientific staff with employment contract				Nationality			Total
				German	Other EU country	Non-EU country	
Non-scientific staff	Experience of sexual discrimination within last 12 months	Never	Count	1139	19	34	1192
				95,9%	90,5%	100,0%	95,9%
		Occassionally, monthly, weekly, or daily	Count	49	2	0	51
				4,1%	9,5%	0,0%	4,1%
	Total		Count	1188	21	34	1243
				100,0%	100,0%	100,0%	100,0%
Scientific staff	Experience of sexual discrimination within last 12 months	Never	Count	582	263	235	1080
				92,8%	92,0%	89,7%	91,9%
		Occassionally, monthly, weekly, or daily	Count	45	23	27	95
				7,2%	8,0%	10,3%	8,1%
	Total		Count	627	286	262	1175
				100,0%	100,0%	100,0%	100,0%
Total	Experience of sexual discrimination within last 12 months	Never	Count	1721	282	269	2272
				94,8%	91,9%	90,9%	94,0%
		Occassionally, monthly, weekly, or daily	Count	94	25	27	146
				5,2%	8,1%	9,1%	6,0%
	Total		Count	1815	307	296	2418
				100,0%	100,0%	100,0%	100,0%

Table A 135: Sexual Discriminiation * Group members understand goals

			Experience of sexual discrimination within last 12 months		Total
			Never	Occassionally, monthly, weekly, or daily	
To what extent do you think your group's objectives are clearly understood by other members of the group?	Not at all or slightly	Count	430	43	473
			6,4%	15,0%	6,7%
	Moderately	Count	1669	122	1791
			24,7%	42,7%	25,5%
	Very or completely	Count	4649	121	4770
			68,9%	42,3%	67,8%
Total		Count	6748	286	7034
			100,0%	100,0%	100,0%

Table A 136: Sexual Discriminiation * Group adresses its own flaws

			Experience of sexual discrimination within last 12 months		Total
			Never	Occassionally, monthly, weekly, or daily	
Does the group try to identify and address its own flaws and shortcomings, so as to become more effective in what it does?	Not at all or slightly	Count	1179	124	1303
			17,8%	43,4%	18,8%
	Moderately	Count	1780	64	1844
			26,8%	22,4%	26,6%
	Very or completely	Count	3680	98	3778
			55,4%	34,3%	54,6%
Total		Count	6639	286	6925
			100,0%	100,0%	100,0%

Table A 137: Sexual Discriminiation * Group members work together on implementing new ideas

			Experience of sexual discrimination within last 12 months		Total
			Never	Occassionally, monthly, weekly, or daily	
People in the group work together to develop and implement new ideas.	Disagree or strongly disagree	Count	1118	105	1223
			16,5%	36,6%	17,3%
	Neither agree nor disagree	Count	1222	63	1285
			18,1%	22,0%	18,2%
	Agree or strongly agree	Count	4428	119	4547
			65,4%	41,5%	64,5%
Total		Count	6768	287	7055
			100,0%	100,0%	100,0%

Table A 138: ... made personally offensive sexist remarks * Gender * Nationality

Scientific or non-scientific staff with employment contract				Nationality			Total
				German	Other EU country	Non-EU country	
Non-scientific staff	... made personally offensive sexist remarks	Never	Count	1139	19	33	1191
				95,1%	90,5%	97,1%	95,1%
		Occasionally, monthly, weekly or daily	Count	59	2	1	62
				4,9%	9,5%	2,9%	4,9%
	Total		Count	1198	21	34	1253
				100,0%	100,0%	100,0%	100,0%
Scientific staff	... made personally offensive sexist remarks	Never	Count	563	228	220	1011
				88,9%	78,1%	83,0%	85,0%
		Occasionally, monthly, weekly or daily	Count	70	64	45	179
				11,1%	21,9%	17,0%	15,0%
	Total		Count	633	292	265	1190
				100,0%	100,0%	100,0%	100,0%
Total	... made personally offensive sexist remarks	Never	Count	1702	247	253	2202
				93,0%	78,9%	84,6%	90,1%
		Occasionally, monthly, weekly or daily	Count	129	66	46	241
				7,0%	21,1%	15,4%	9,9%
	Total		Count	1831	313	299	2443
				100,0%	100,0%	100,0%	100,0%

Table A 139: ...treated you differently because of your gender? * Simplified position of scientific staff

			Simplified position of scientific staff				Total
			Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
...treated you differently because of your gender?	Never	Count	289	962	834	729	2814
			73,7%	75,2%	77,6%	82,5%	77,5%
	Occasionally, monthly, weekly or daily	Count	103	318	241	155	817
			26,3%	24,8%	22,4%	17,6%	22,5%
Total		Count	392	1280	1075	884	3631
			100,0%	100,0%	100,0%	100,0%	100,0%

Table A 140: ...treated you differently because of your gender? * Simplified position of scientific staff * Gender

Please indicate your gender.				Simplified Position of scientific staff				Total
				Director, research group leader	Doctoral candidate	Postdoc	Other research associates employed	
Female	...treated you differently because of your gender?	Never	Count	47	287	238	211	783
				40,9%	56,1%	57,9%	70,6%	58,6%
		Occassionally, monthly,	Count	68	225	173	88	554
				59,1%	43,9%	42,1%	29,4%	41,4%

		weekly, or daily						
	Total		Count	115	512	411	299	1337
				100,0%	100,0%	100,0%	100,0%	100,0%
Male	...treated you differently because of your gender?	Never	Count	232	607	550	484	1873
				88,2%	88,9%	91,7%	90,3%	90,0%
		Occassionally, monthly, weekly, or daily	Count	31	76	50	52	209
				11,8%	11,1%	8,3%	9,7%	10,0%
	Total		Count	263	683	600	536	2082
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	...treated you differently because of your gender?	Never	Count	279	894	788	695	2656
				73,8%	74,8%	77,9%	83,2%	77,7%
		Occassionally, monthly, weekly, or daily	Count	99	301	223	140	763
				26,2%	25,2%	22,1%	16,8%	22,3%
	Total		Count	378	1195	1011	835	3419
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 141: ... made offensive remarks about your appearance, body, or sexual activities? * Gender* Age Range

Please indicate your gender.				Please indicate your age range.				Total
				15 - 29	30 - 44	45 - 59	60 and older	
Female	... made offensive remarks abput your appearance, body, or sexual activities?	Never	Count	716	1312	1134	177	3339
				90,1%	91,6%	96,3%	94,7%	93,0%
		Occassionally, monthly, weekly, or daily	Count	79	120	44	10	253
				9,9%	8,4%	3,7%	5,3%	7,0%
	Total		Count	795	1432	1178	187	3592
				100,0%	100,0%	100,0%	100,0%	100,0%
Male	... made offensive remarks abput your appearance, body, or sexual activities?	Never	Count	806	1499	1064	260	3629
				94,6%	94,9%	96,9%	99,2%	95,7%
		Occassionally, monthly, weekly, or daily	Count	46	80	34	2	162
				5,4%	5,1%	3,1%	,8%	4,3%
	Total		Count	852	1579	1098	262	3791
				100,0%	100,0%	100,0%	100,0%	100,0%
Total	... made offensive remarks abput your appearance, body, or sexual activities?	Never	Count	1522	2811	2198	437	6968
				92,4%	93,4%	96,6%	97,3%	94,4%
		Occassionally, monthly, weekly, or daily	Count	125	200	78	12	415
				7,6%	6,6%	3,4%	2,7%	5,6%
	Total		Count	1647	3011	2276	449	7383
				100,0%	100,0%	100,0%	100,0%	100,0%

Table A 142: Unwanted sexual attention * Gender

			Please indicate your gender.		Total
			Female	Male	
Unwanted sexual attention	Never	Count	3374	3698	7072
			92,6%	96,8%	94,7%
	Occasionally, monthly, weekly, or daily	Count	268	123	391
			7,4%	3,2%	5,3%
Total		Count	3642	3821	7463
			100,0%	100,0%	100,0%

Table A 143: Cluster 1-2 & 3 * Age Range

			Cluster		Total
			Cluster 1&2	Cluster 3	
Please indicate your age range.	15 - 29	Count	1587	44	1631
			22,4%	34,6%	22,6%
	30 - 44	Count	2905	65	2970
			40,9%	51,2%	41,1%
	45 - 59	Count	2174	17	2191
			30,6%	13,4%	30,3%
	60 and older	Count	432	1	433
			6,1%	,8%	6,0%
Total		Count	7098	127	7225
			100,0%	100,0%	100,0%

Table A 144: Cluster 1-3 * Gender

			Cluster model			Total
			1	2	3	
Please indicate your gender.	Female	Count	2678	686	87	3451
			44,2%	71,5%	68,5%	48,3%
	Male	Count	3379	273	40	3692
			55,8%	28,5%	31,5%	51,7%
Total		Count	6057	959	127	7143
			100,0%	100,0%	100,0%	100,0%

Table A 145: Cluster 1-3 * Nationality

			Cluster model			Total
			1	2	3	
Nationality	German	Count	4577	677	79	5333
			75,1%	69,4%	63,2%	74,2%
	Other EU country	Count	746	156	26	928
			12,2%	16,0%	20,8%	12,9%
	Non-EU country	Count	769	142	20	931
			12,6%	14,6%	16,0%	12,9%
Total		Count	6092	975	125	7192
			100,0%	100,0%	100,0%	100,0%

Table A 146: Cluster 1-3 * Scientific or non-scientific staff

			Cluster model			Total
			1	2	3	
Scientific or non-scientific staff with employment contract	Non-scientific staff	Count	2101	286	26	2413
			42,4%	37,3%	25,0%	41,4%
	Scientific staff	Count	2852	480	78	3410
			57,6%	62,7%	75,0%	58,6%
Total		Count	4953	766	104	5823
			100,0%	100,0%	100,0%	100,0%

Table A 147: Cluster 1-3 * Simplified position of scientific staff

			Cluster model			Total
			1	2	3	
Simplified Position of scientific staff	Director, research group leader	Count	326	52	5	383
			11,1%	9,9%	6,3%	10,8%
	Doctoral candidate	Count	1011	203	39	1253
			34,3%	38,7%	49,4%	35,3%
	Postdoc	Count	852	173	28	1053
			28,9%	33,0%	35,4%	29,7%
	Other research associates employed	Count	757	96	7	860
			25,7%	18,3%	8,9%	24,2%
Total		Count	2946	524	79	3549
			100,0%	100,0%	100,0%	100,0%

Table A 148: Cluster * Working Relationship

			Cluster model			Total
			1	2	3	
Working relationship	Employment contract	Count	5989	901	116	7006
			91,1%	86,8%	85,9%	90,4%
	Scholarship/funding contract	Count	347	77	16	440
			5,3%	7,4%	11,9%	5,7%
	Guest scientist	Count	101	20	2	123
			1,5%	1,9%	1,5%	1,6%
	Other	Count	75	18	0	93
			1,1%	1,7%	0,0%	1,2%
	Two working relationships	Count	63	22	1	86
			1,0%	2,1%	,7%	1,1%
Total		Count	6575	1038	135	7748
			100,0%	100,0%	100,0%	100,0%

Table A 149: Cluster 1-3 * Unit of non-scientific staff

			Cluster model			Total
			1	2	3	
Unit of non-scientific staff	Administration	Count	1038	132	17	1187
			36,8%	36,7%	42,5%	36,8%
	Technology and IT	Count	922	78	7	1007
			32,7%	21,7%	17,5%	31,2%
	Other services	Count	815	143	16	974
			28,9%	39,7%	40,0%	30,2%
	Two or three units	Count	48	7	0	55
			1,7%	1,9%	0,0%	1,7%
Total		Count	2823	360	40	3223
			100,0%	100,0%	100,0%	100,0%