

»WORK CULTURE AND WORK ATMOSPHERE AT THE MAX PLANCK SOCIETY«

Abridged report

As of 21 June 2019

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Executive Summary

The following abridged report is based on an online survey of all employees and researchers of the Max Planck Society, as commissioned by the president of the organization and accordingly carried out by Fraunhofer IAO in February/March 2019.

Generally positive evaluation of group atmosphere and leadership culture

The findings of the survey reveal a high level of organizational commitment; in other words, people working at the Max Planck Society display a high degree of personal commitment, and within their respective work units are bound by a strong shared vision and collegiality. In the clear majority of cases, people judge their superiors to be employee-oriented and change-oriented. Scientific personnel indicate that they feel motivated and inspired by their institute or facility to perform to the best of their ability significantly more often than non-scientific staff (79.7% versus 74.9%).

A noticeably larger percentage of directors and research group leaders (55.2%), doctoral candidates (53.6%) and postdoctoral researchers (48.6%) judge their work to have had a negative impact on their private lives at least several times a month, than other research associates (35.6%). The statement that the respondent took less parental leave than they would have wanted so as to avoid putting themselves at a professional disadvantage, was confirmed by 51.6% of scientific personnel.

Average number of self-ascribed cases of bullying and sexual discrimination

Never before has a cutting-edge research organization launched such a comprehensive investigation of its own work culture, with a particular focus on bullying and sexual discrimination. Accordingly, the survey's findings are not readily comparable. Still, to the extent that comparisons can be drawn, e.g. with the findings of international studies focusing primarily on universities, self-ascribed cases of bullying over the 12 months preceding the survey (10.2%) can be seen to fall within average range. The percentage of self-ascribed cases of sexual discrimination (3.9%) is below average. In general, bullying and sexual discrimination are seldom reported and people tend to have little confidence in the effectiveness of existing procedures. This applies to the Max Planck Society as well.

It is notable that directors and junior research group leaders were the ones who most frequently indicated that they had experienced sexist behavior (26.3%, in contrast to 22.5% of postdoctoral researchers and 24.8% of doctoral candidates).

Bullying as a group problem, sexual discrimination as a bilateral problem

Bullying tends to occur as a group phenomenon with the participation of several „bullies“, usually including the affected party's immediate superior and/or fellow group members. In contrast to this, sexual discrimination is – broadly speaking – a bilateral problem, in which working relationships seem to play a minor role.

Work culture with room for improvement

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%), that the respondent is assigned tasks below their level of competence (51.5%), and that their opinions are ignored (48.1%). Moreover, nearly one third of respondents complained of an unmanageable workload (30.4%) and unreasonable deadlines (29.3%). Non-scientific employees are noticeably more likely to feel impeded in their work, whereas a larger percentage of scientific personnel experiences pressure not to claim that to which they are rightfully entitled (e.g. holidays or parental leave).

Nonetheless, there is no group of people that can be singled out as more affected than any other. Rather, especially in terms of work atmosphere, several vulnerable groups can be identified, such as non-scientific staff, women, or people aged 45-59. These groups could moreover be combined into more narrowly defined clusters, for instance with respect to the clear interplay between bullying and the combination of factors such as age and workplace gender ratio.

Background to the survey

Reason for the study

To obtain a meaningful picture of the work culture and work atmosphere at the Max Planck Society, an organization-wide survey was carried out from 13 February to 13 March 2019. In parallel with this survey, forty qualitative interviews were conducted with people who had experienced bullying or sexual discrimination, as well as with randomly selected Max Planck employees at various stages of their respective careers, who could accordingly provide insight into the conditions and circumstances specific to each of these career stages.

The findings presented herein, along with pending in-depth analyses, are intended to serve the Max Planck Society in developing practical recommendations and measures for building a performance-oriented and simultaneously appreciative work culture and atmosphere at its institutes and facilities.

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 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.
- The very good ratio of sample size to survey population in comparison with other macro studies (such as the EU's Gendercrime report on bullying) makes for a high degree of representativeness.
- This study is unique in focusing on work culture and work atmosphere in the field of cutting-edge research, whereas the majority of existing studies focus on the field of academic teaching.
- It is very rare that all people working at an organization are asked to participate in a study – 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**.

Findings that are not readily comparable

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 **average range**, as measured against studies conducted at universities. The prevalence of self-ascribed experiences of **sexual harassment**, on the other hand, is **below average**.

A representative survey of Czech university employees rendered a value of 7.9% for the self-ascribed status of „bullied“, which falls slightly below the corresponding value in the Max Planck Society survey (Zabrodska et al. 2013). A British survey of 14,000 higher education professionals revealed a value of 21% at the elite institutions Cambridge University, Oxford University and University College London, which is significantly higher than at the Max Planck Society (UCU 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 2009).

A report published last year in the American National Academies of Sciences, Engineering, and Medicine assigns a value of approximately 20% to the self-ascribed status of female employees as „sexually harassed“, which is markedly higher than the corresponding value at the Max Planck Society (National Academies of Sciences, Engineering, and Medicine 2018: 28).

A recent survey among students at ETH Zürich revealed 12% of respondents to have experienced „belittlement, social exclusion, refusal of information, being given insulting assignments, or unfair criticism“. At the Max Planck Society, 44% of all respondents had experienced at least one of the above types of behavior during the 12 months preceding the survey.¹ 3% of respondents in the ETH Zürich survey indicated having experienced „importunate behavior, unwanted suggestive remarks, inappropriate or pestering looks, or being tempted with benefits in return for sexual compliance“(VSETH 2019). At the Max Planck Society, 12% of respondents confirmed having experienced at least one of these types of behavior.² However, given the differences between these two surveys in terms of questioning technique and target group, their findings are not fully comparable.

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 very comprehensive research design was chosen. Experiences of bullying and sexual discrimination were assessed in detail and by means of a variety of approaches, and measured against the current gold standard. In addition, respondents were queried about a comprehensive range of surrounding factors, such as their immediate superior’s leadership style and the workplace gender ratio, and numerous structural data such as age, gender, section affiliation, position, etc.

¹ Whereas the ETH survey gathered data on “belittlement, social exclusion, refusal of information, being given insulting assignments, or unfair criticism” in aggregate and with respect to respondents’ entire course of study, the Max Planck survey looked at individual types of behavior, with reference to the 12 months preceding the survey. The following behavioral items were used in the comparative calculation: (1) Being humiliated or ridiculed in connection with your work. (2) Being ignored or excluded. (3) Having insulting or offensive remarks made about your person, your views, or your private life. (4) Unfair repeated reminders of your errors or mistakes.

² The following behavioral items were used in the comparative calculation: (1) ... made personally offensive sexist remarks? (2) ... made offensive remarks about your appearance, body, or sexual activities? (3) ... made unwanted attempts to establish a romantic or sexual relationship with you? (4) ... touched you in a way that made you feel uncomfortable? (5) ... implied that you would be promoted faster or given better treatment or be otherwise rewarded if you engage in sexual behavior?

Representativeness

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, fully completed questionnaires from 38% of all employees remain (figure 1). 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 e-mails to all its employees and researchers.



Figure 1: All employees and researchers of the Max Planck Society, all survey participants, and the ultimately evaluable data sets, in absolute figures.

Highly representative data

Thanks to the high participation rate among employees, a high quality data set was obtained. 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 data quality, an even more important factor than participation rate is 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 are underrepresented.

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

Employee group	Staff Statistics (31.12.2018)	Survey (14.03.2019)
Women	43.2%	40.5%
Employees with non-German citizenship	35.5%	23.2%
Employment contract holders	88.2%	82.8%
Scholarship/funding contract holders	3.4%	5.8%
Guest scientists	8.3%	1.9%
Directors and research group leaders	2.8%	4.7%
Postdoctoral researchers	11.6%	12.8%
Doctoral candidates (excl. IMPRS)	16.0%	15.1%
Non-scientific staff	36.0%	42.1%

Below, all answers given by the various status groups (directors and group leaders, postdoctoral researchers, doctoral candidates and other research associates) are evaluated in terms of clear deviations from the average of all respondents. The same procedure is followed with respect to age, gender and the distinction between scientific and non-scientific staff. Conspicuous deviations are pointed out in the main text. The graphs for the most part depict the distribution of answers among all respondents, albeit in some cases broken down into scientific and non-scientific staff, or by gender.

There is in part a strong interdependence between individual group characteristics (for instance between age and hierarchical position). Further analyses entail processes that take this interdependence into account and allow for the analysis of groups defined by aggregate characteristics.

Findings

Work culture and work atmosphere

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, quality orientation and support in the development of innovations. Furthermore, respondents were asked to assess the extent to which their immediate 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.

People working at the Max Planck Society have a strong shared vision

Most respondents report a well-developed shared understanding of common objectives in their respective groups (figure 2). 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 93.4%, as opposed to 74.7% and 76.0%, respectively).

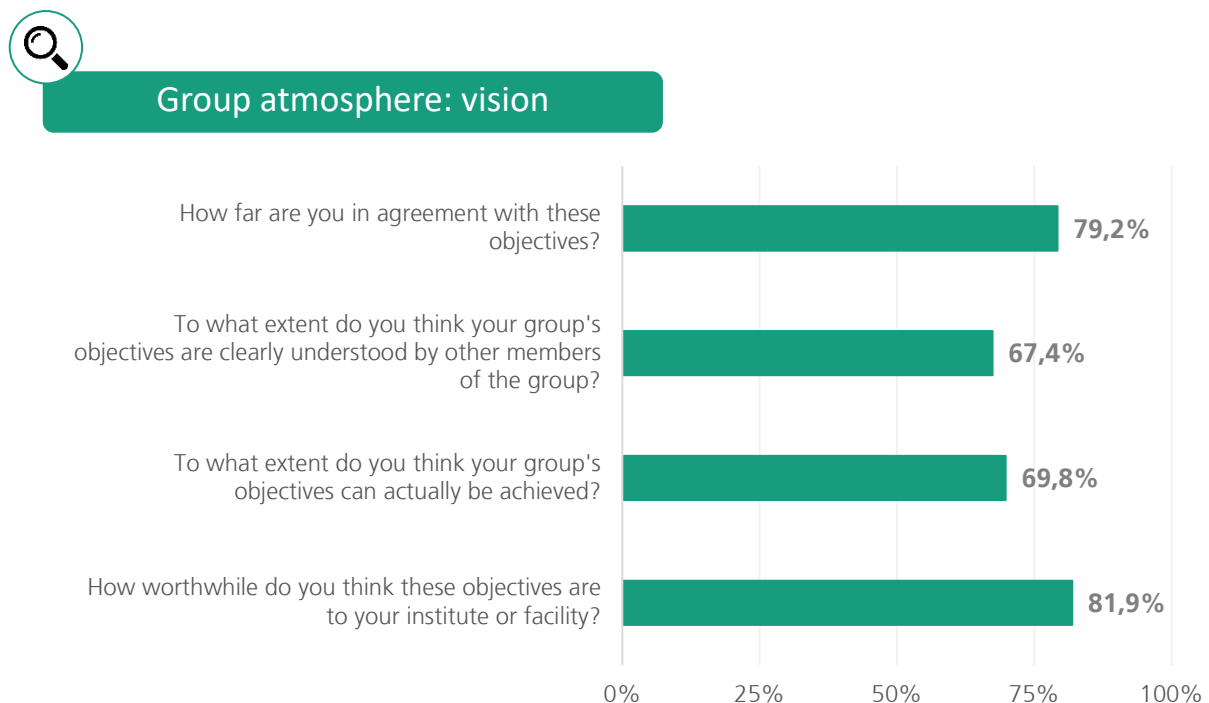


Figure 2: Response behavior of Max Planck Society employees and researchers with respect to questions about their respective groups' shared vision

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.) = 7,837; n(min.) = 7,457.

Women and non-scientific staff experience less collegiality

In general, respondents gave very positive assessments of the collegiality in their respective groups (figure 3). Nonetheless, female employees and researchers indicated significantly less frequently than men that group members feel understood and accepted by one another (72.0% versus 77.4%), that there are real attempts to share information throughout the group (66.4% versus 69.8%), and that everyone's opinion is listened to, even if it is unpopular (70.1% versus 76.0%). Similarly, non-scientific employees confirm less frequently than scientific employees that group members feel understood and accepted by one another (71.3% versus 77.3%), and that there are real attempts to share information throughout the group (64.4% versus 69.9%).



Group atmosphere: participative safety

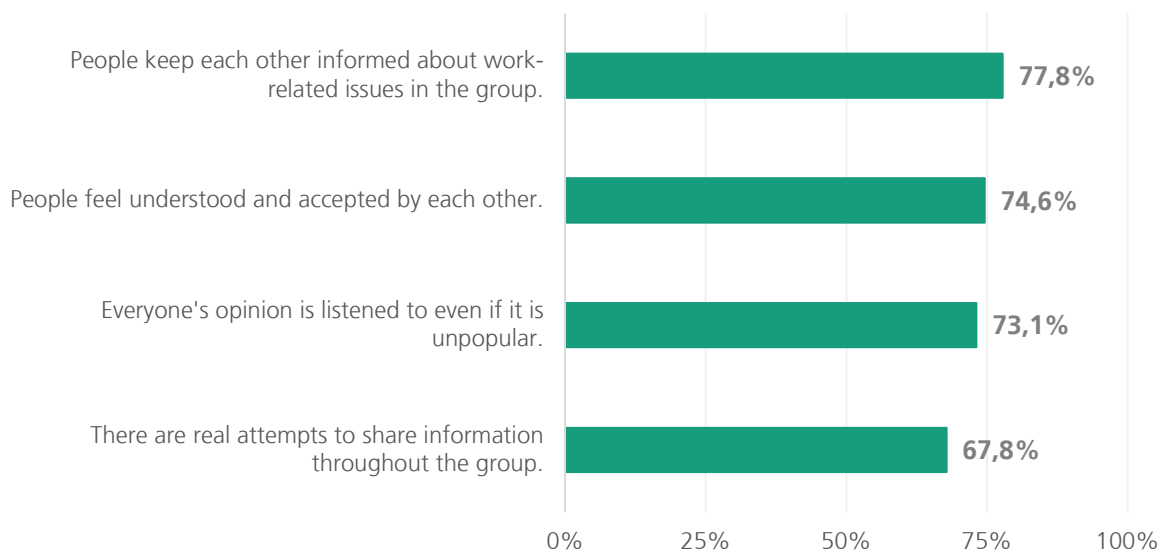


Figure 3: Response behavior of Max Planck Society employees and researchers with respect to questions about collegiality within their respective groups.

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.

The percentages represent the proportion of respondents who answered the relevant questions with „Very“ or „Completely“.

n(max.) = 7,825; n(min.) = 7,710.

With age comes a more critical view of superiors

A clear majority of respondents judged their immediate superiors to be employee-oriented. Non-scientific staff members are a little more critical in this respect and less likely to confirm that their superiors respect their subordinates (figure 4).

Older employees also tend to become more critical in this regard. Among the youngest group of respondents, i.e. those aged 15 to 29 (apprentices and trainees at the Max Planck Society were included in the survey), agreement with all relevant statements is around ten percentage points higher than among respondents aged 45 to 59.



Leadership style: employee-orientation

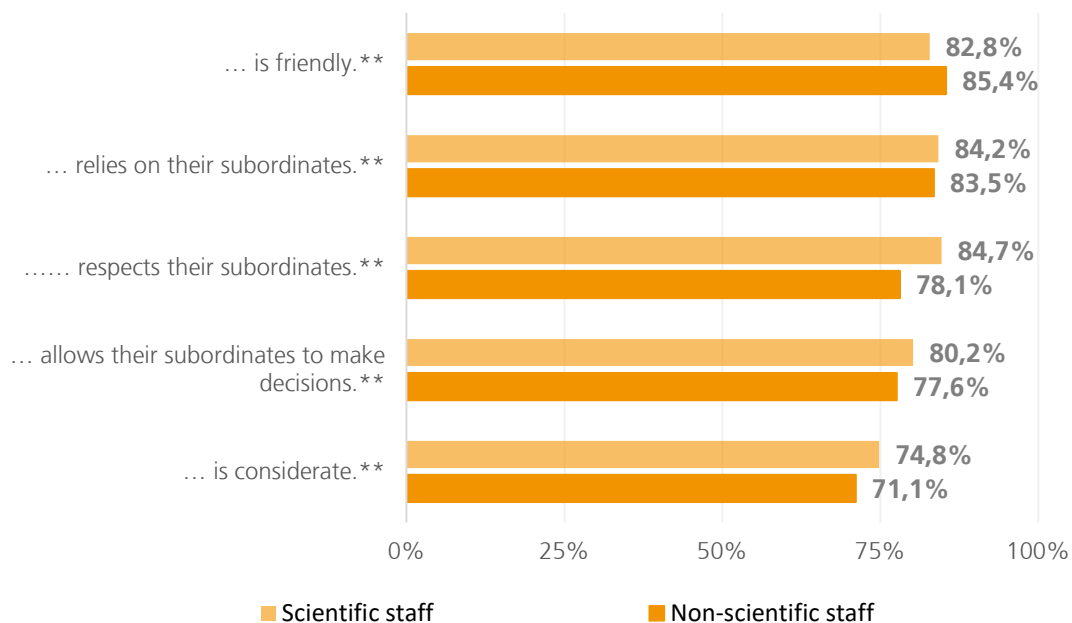


Figure 4: Response behavior of Max Planck Society employees and researchers with respect to questions about the employee orientation of their immediate superior, broken down into non-scientific and scientific staff.

The respondent's "immediate superior" is defined as the person who regularly gives them instructions, e.g. their principal investigator, group leader or head of department.

The percentages represent the proportion of respondents who answered the relevant questions with „Very“ or „Completely“.

n(max.) = 6,013; n(min.) = 5,978; *P ≤ 0.05, **P ≤ 0.01.

Superiors are deemed highly change-oriented

Statements describing superiors as change-oriented were largely met with agreement (figure 5). A marked difference could be observed between non-scientific and scientific personnel. The average percentage of individual statements agreed to is 76.2% among scientists and researchers, and 62.9% among non-scientific employees. When examined in more detail, the findings reveal that people working in administration are significantly less likely to say that their superiors initiate new projects and experiment with new ways of doing things, than those working in technology and IT, or other services (... initiates new projects: 62.1% administration, 70.4% IT, 72.3% other; ... experiments with new ways of doing things: 51.8% administration, 58.1% IT, 59.0% other).



Leadership style: change-orientation

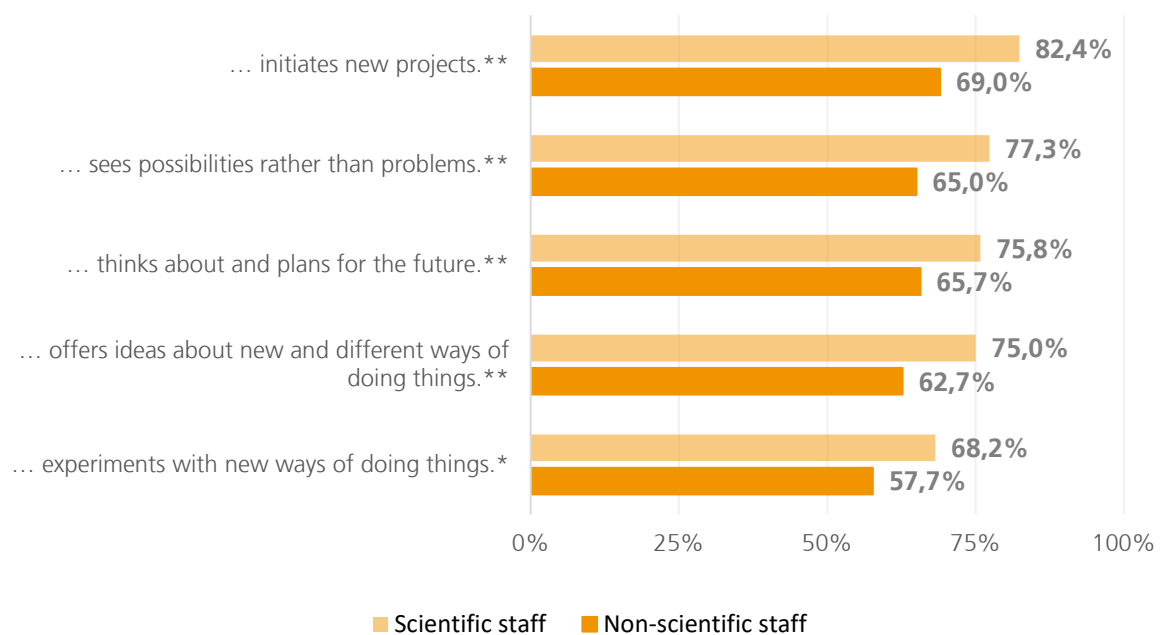


Figure 5: Response behavior of Max Planck Society employees and researchers with respect to questions about the change orientation of their immediate superior, broken down into non-scientific and scientific staff.

The respondent's "immediate superior" is defined as the person who regularly gives them instructions, e.g. their principal investigator, group leader or head of department.

The percentages represent the proportion of respondents who answered the relevant questions with „Very" or „Completely".

n(max.) = 5,922; n(min.) = 5,749; *P ≤ 0.05, **P ≤ 0.01.

Women are significantly less likely to feel supported in their careers

In an organization whose objectives include scientific training, career development with the help of one's immediate 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, 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 tended to be met with only cautious agreement (figure 6). Differences in responses can in part be explained by the different career paths of non-scientific and scientific personnel (average agreement of 35.0% versus 49.4%). 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.

Female scientists and researchers were significantly less likely to agree with statements regarding career development (an average of 45.0%, versus 52.6% among men). In particular, women were far less likely to agree that their superior uses their influence to advance the respondent's career (38.3% versus 44.6% among men), and that they bring their subordinate into contact with people who can positively influence their career (43% versus 49.5% among men).



Leadership style: mentoring



Figure 6: Response behavior of Max Planck Society employees and researchers with respect to questions about the extent to which their immediate superior supports their career development, broken down into non-scientific and scientific staff.

The respondent's "immediate superior" is defined as the person who regularly gives them instructions, e.g. their principal investigator, group leader or head of department.

The percentages represent the proportion of respondents who answered the relevant questions with „Very" or „Completely“.

n(max.) = 4,759; n(min.) = 5,630; *P ≤ 0.05, **P ≤ 0.01.

Outstanding organizational commitment

People working at the Max Planck Society display a remarkable level of commitment to their respective institutes and facilities (figure 7). Respondents agreed particularly strongly with statements concerning personal willingness to do their best for their institute or facility, and pride in their institute or facility. On the other hand, the most typically rejected statement was that the respondent would accept almost any changes in their job or duties just to be able to continue working for their institute or facility.

Non-scientific employees indicated somewhat more frequently that they praise their employer when talking with friends (84.2% versus 79.7%), and are slightly more prepared to accept changes in their jobs or duties, so as to be able to keep working at their respective institutes or facilities (46.0% versus 38.6%). Scientific

personnel, however, more frequently indicated that their respective institutes or facilities motivate and inspire them to do their very best work (79.7% versus 74.9%).

The highest level of commitment is displayed by directors and research group leaders (an average of 90%), followed by other research associates (86.1%), postdoctoral researchers (82.9%), and doctoral candidates (78.8%), with basis for employment (employment contract or scholarship) playing only a marginal role in respondents' response behavior.



Organizational commitment

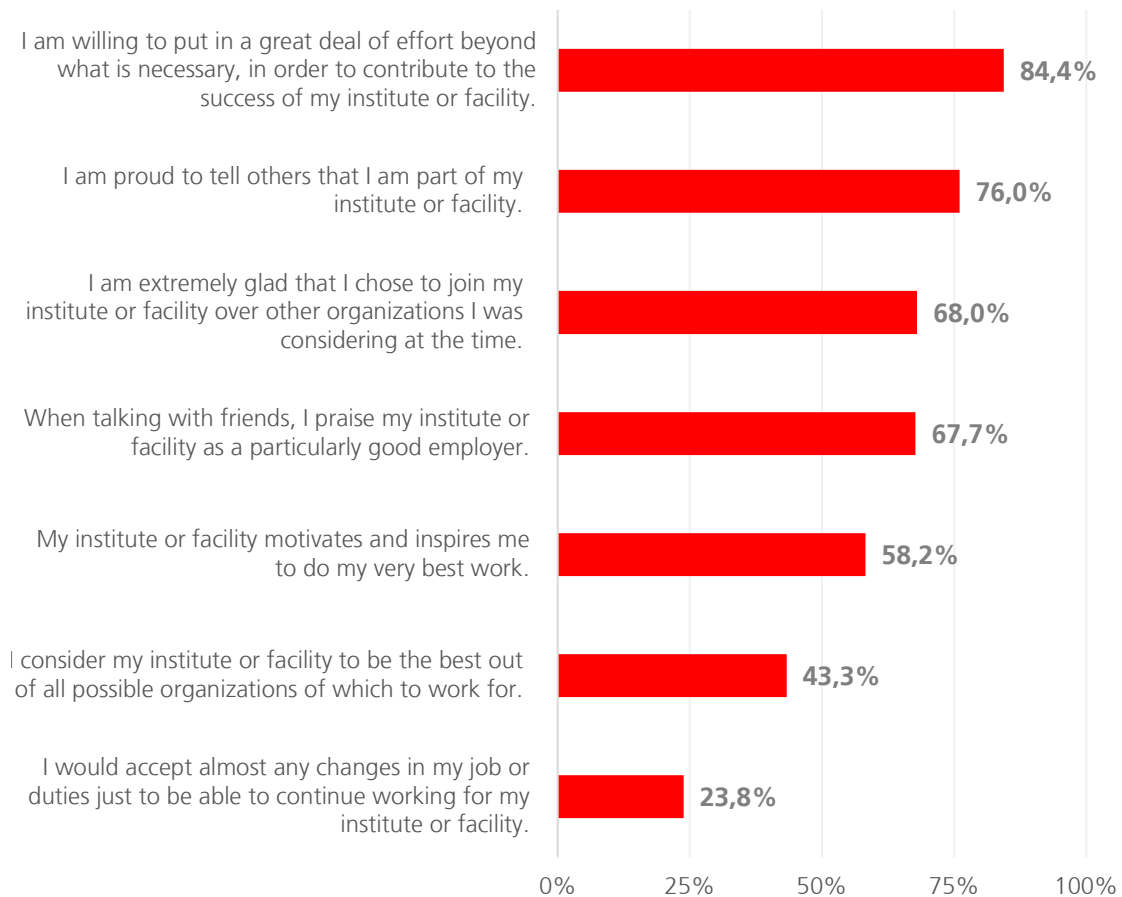


Figure 7: Response behavior of Max Planck Society employees and researchers with respect to questions about their level of commitment towards their institute or facility.

The percentages represent the proportion of respondents who answered the relevant questions with „Agree“ or „Strongly agree“.

n(max.) = 8,685; n(min.) = 8,232.

The private life of one in two scientific employees regularly suffers due to work

More than one third of respondents indicated that their private lives suffered because of work at least a few times per month. One tenth indicated the opposite, namely that their work suffered because of private factors (figure 8). Furthermore, women generally answered no differently than men, and conflicts between work and private life could be seen to decrease as people get older.

With respect to all items, scientific personnel were seen to be more likely to indicate problems with maintaining a healthy work-life balance than non-scientific staff. Nearly one out of every two scientific employees (47.4%) indicated that in the 12 months preceding the survey, their private lives had suffered because of work at least a few times per month, as opposed to 22.9% of non-scientific employees.

Directors and research team leaders (55.2%), doctoral candidates (53.6%) and postdoctoral researchers (48.6%) indicated that their private lives suffered because of work at least several times per month with noticeably more frequency than other research associates (35.6%).

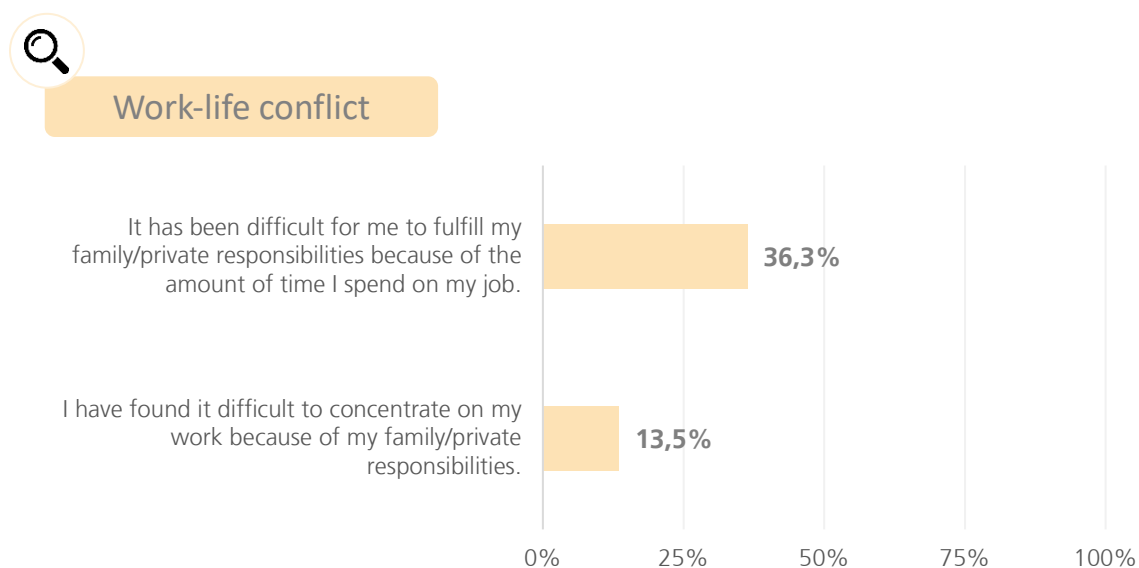


Figure 8: Response behavior of Max Planck Society employees and researchers with respect to questions about conflicts between work and private life.

The percentages represent the proportion of respondents who answered the relevant questions with „Several times a month“, „Several times a week“ or „Daily“.

n(max.) = 8,169; n(min.) = 8,099.

Starting a family is supported, but still difficult to balance with a career

The majority of Max Planck Society employees and researchers who have children felt supported by their institute or facility during their or their partner's pregnancy (figure 9). Women report a slightly higher level of support in this regard than men (61.8% versus 57.3%). At the same time, a decidedly higher number of women indicate that their pregnancy (+10.9 percentage points), children (+13.7 percentage points) or parental leave (+13.1 percentage points) has put them at a disadvantage in their respective careers.

Scientific personnel indicated substantially more frequently than non-scientific staff that they had found themselves at a professional disadvantage as a result of pregnancy, taking parental leave, or having children. In particular, the statement that the respondent took less parental leave than they would have wanted, so as to avoid putting themselves at a professional disadvantage, was confirmed by 51.6% of scientific employees.

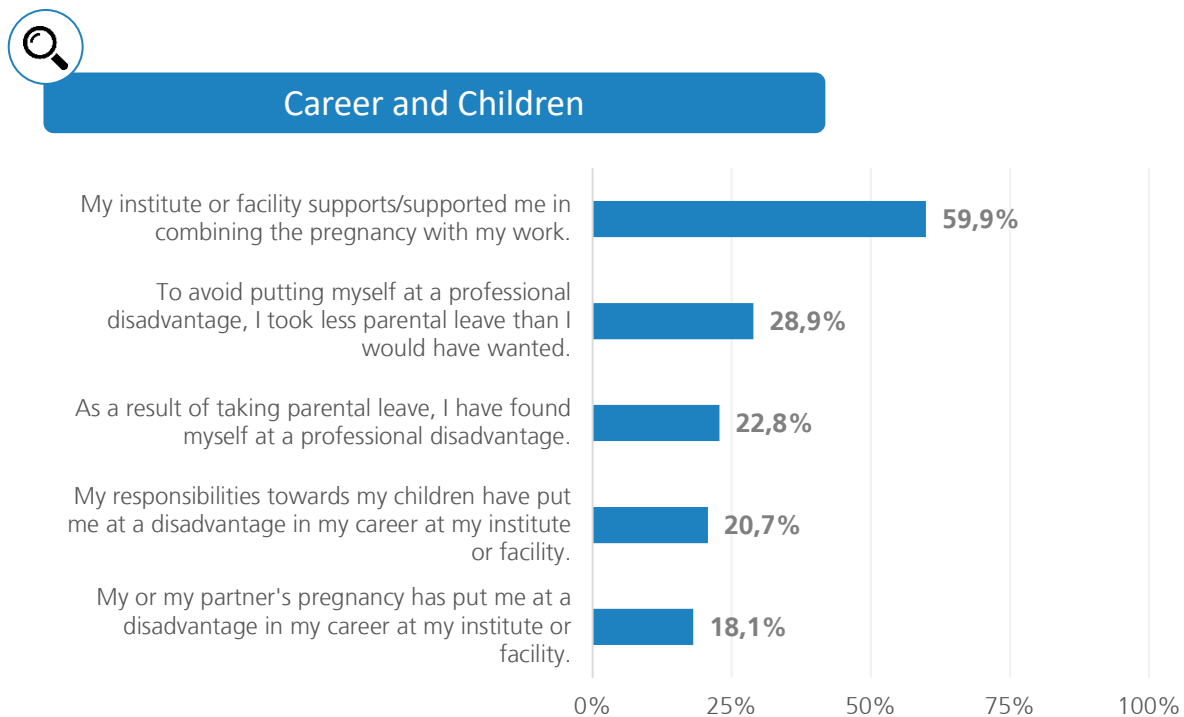


Figure 9: Response behavior of Max Planck Society employees and researchers with respect to questions about problems with balancing children and career.

The percentages represent the proportion of respondents who answered the relevant questions with „Agree“ or „Strongly agree“.

n(max.) = 2,732; n(min.) = 1,186.

Pressure to perform and bullying

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 centres 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 comparable studies, respondents were supplied with a definition of bullying when asked the above question:

“Bullying” here denotes repeated and persistent negative behavior directed towards 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 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. 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..

It should be noted that this study does not support any conclusions about the prevalence of bullying and sexual discrimination in terms of legal offenses (e.g. violations of people’s legal right to privacy). 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. It is recommended 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.

One in ten employees was subjected to bullying during the preceding 12 months

One in ten people (10.2%) working at the Max Planck Society have in their own view been subjected to bullying during the 12 months preceding the survey. When the time period is extended to beyond 12 months, that number rises to 17.5%. Below, the findings are broken down into the responses of non-scientific and scientific staff, as this reveals certain clear differences.

Non-scientific employees are far more likely to be subjected to bullying

As can be seen in figure 10, 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. Over a longer period, the probability of having been bullied becomes as much as 75% higher than in the case of scientific staff.

Significant differences can likewise be observed between men and women (7.7% versus 12.0%), and between scientists and researchers from Germany and from other EU countries (6.2% versus 11.1%). No significant differences were found between scientific employees with different positions (such as doctoral candidates, group leaders, etc.).

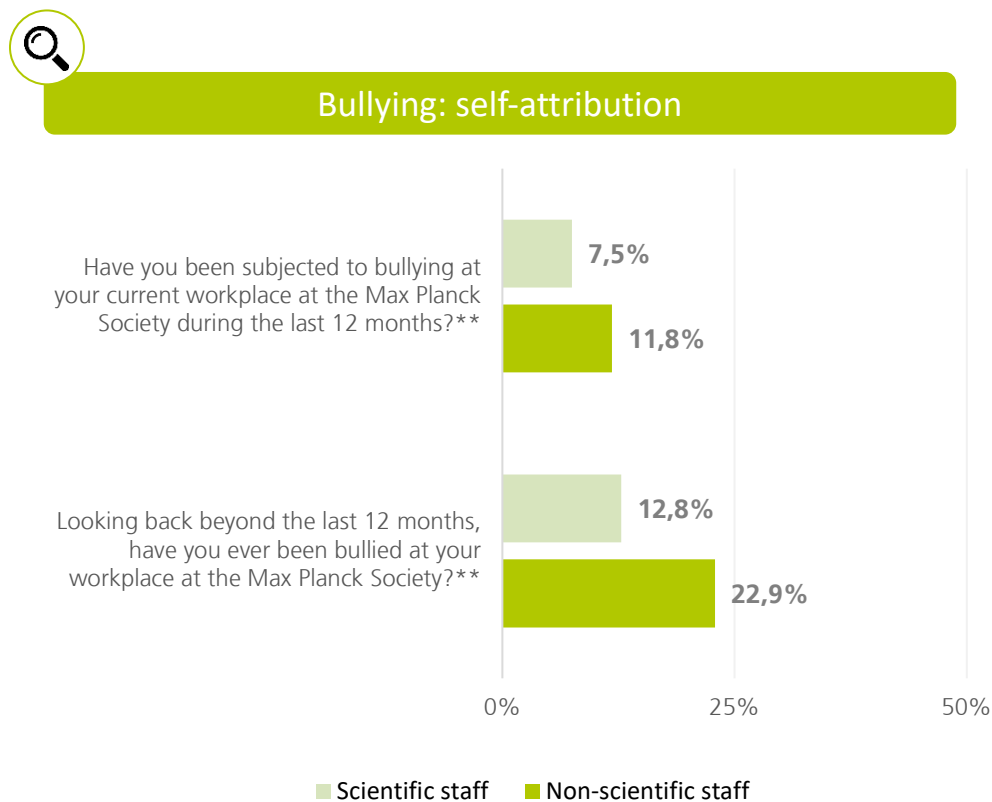


Figure 10: Response behavior of Max Planck Society employees and researchers with respect to questions about self-ascribed experiences of bullying, broken down into non-scientific and scientific staff.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 6,021; n(min.) = 5,949; *P ≤ 0.05, **P ≤ 0.01.

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%) 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%), that the respondent is assigned tasks below their level of competence (51.5%), and that their opinions are ignored (48.1%). Moreover, nearly one third of respondents complained of an unmanageable workload (30.4%) and unreasonable deadlines (29.3%).

As can be seen in figure 11, there are clear differences between scientific and non-scientific staff in this regard. Whereas scientists and researchers are significantly more frequently put under pressure not to claim benefits to which they are rightfully entitled, non-scientific employees more frequently feel impeded in their work.



Work-related behavior

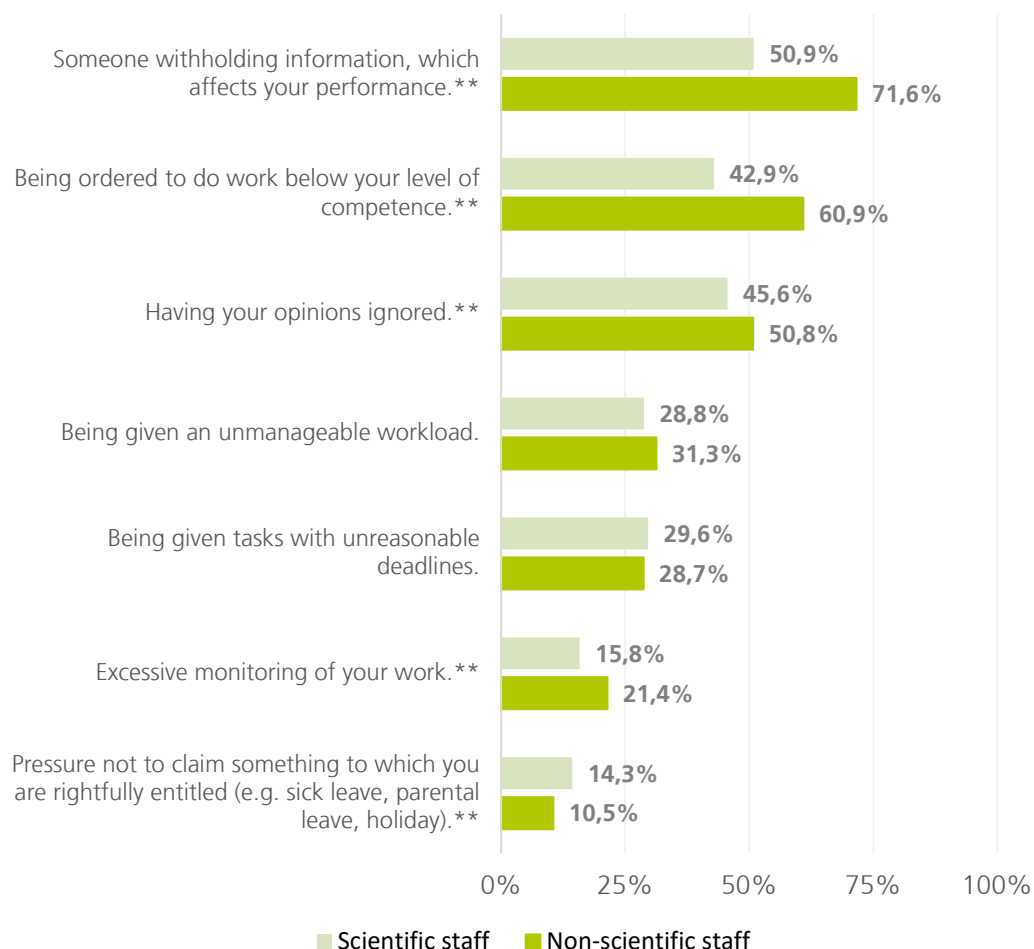


Figure 11: Response behavior of Max Planck Society employees and researchers with respect to questions about work-related behavior they have experienced at their workplace, broken down into non-scientific and scientific staff.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 6,002; n(min.) = 5,889; *P ≤ 0.05, **P ≤ 0.01.

A large proportion of non-German scientists and researchers feel ignored or excluded

Figure 12 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. 32.6% 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. Moreover, one in five respondents (21.5%) 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 12).

The feeling of being ignored or excluded is more prevalent among scientists and researchers than among non-scientists, and is 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 37.3% among citizens of non-EU countries.



Person-related behavior

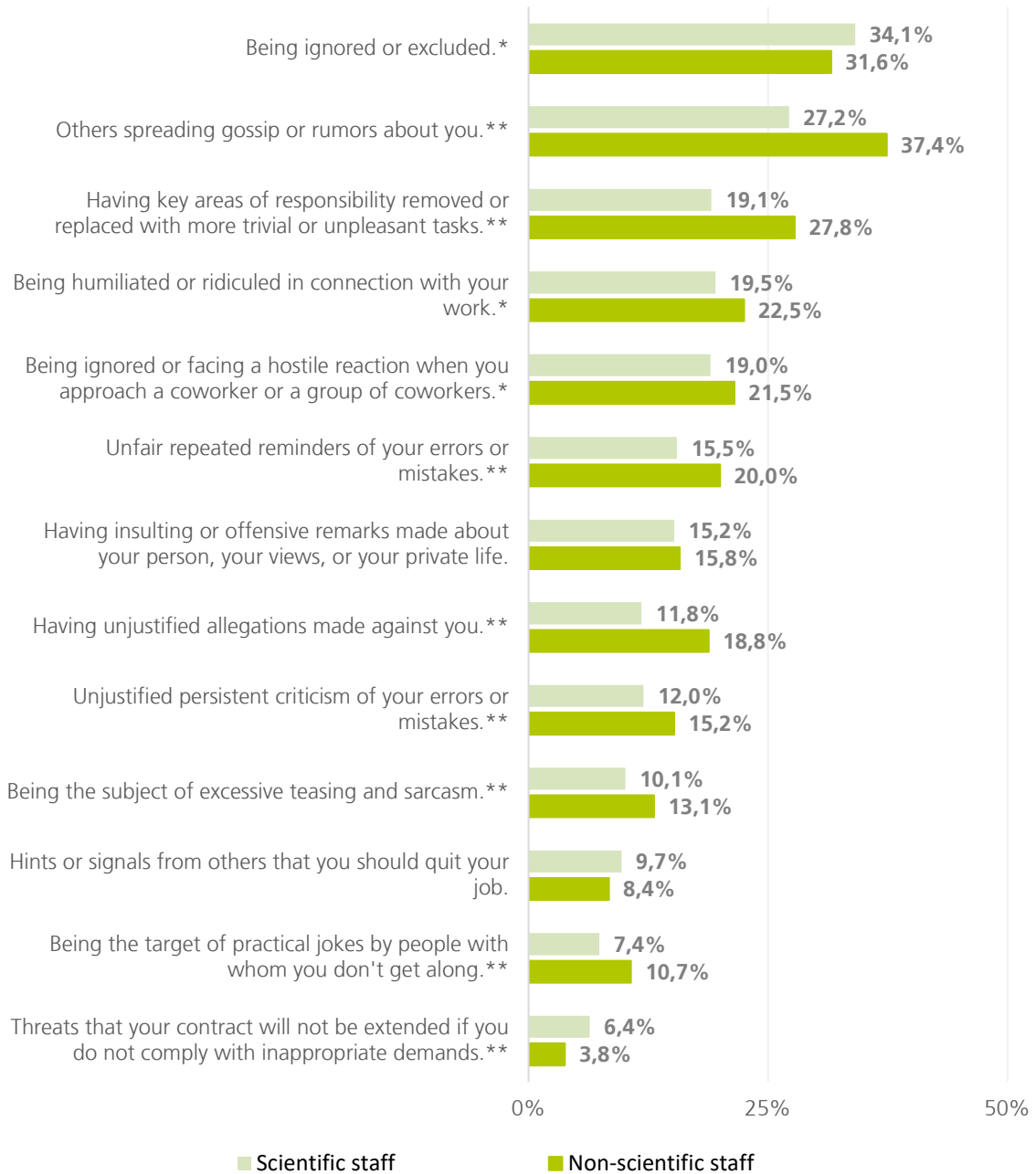


Figure 12: Response behavior of Max Planck Society employees and researchers with respect to questions about personally directed behavior they have experienced at their workplace, broken down into non-scientific and scientific staff.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 6,013; n(min.) = 4,546; *P ≤ 0.05, **P ≤ 0.01.

One in five employees has been shouted at or targeted by spontaneous anger

Figure 13 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 significant differences were found in this regard between scientific and non-scientific staff. 18.6% of all respondents 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. One in twenty employees (5.3%) has at least occasionally encountered physically intimidating behavior, and 0.9% of respondents report having experienced threats of violence or physical abuse, or actual abuse.

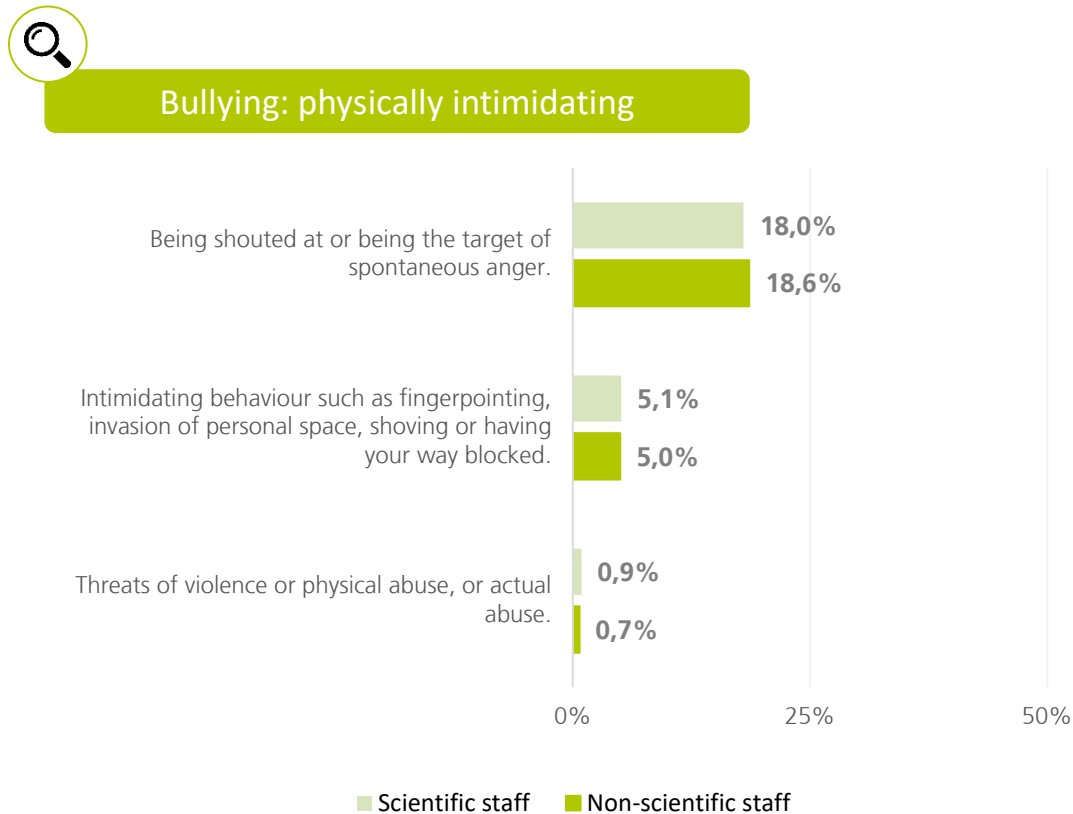


Figure 13: Response behavior of Max Planck Society employees and researchers with respect to questions about physically intimidating behavior they have experienced at their workplace, broken down into non-scientific and scientific staff.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 6,035; n(min.) = 6,021; *P ≤ 0.05, **P ≤ 0.01.

Sexual discrimination

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.

Female scientific personnel aged 15-29 and 30-44 most likely to experience discrimination

Of all respondents, 3.9% stated that they had felt sexually harassed or discriminated against by their colleagues 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 (see figure 14), which is why the findings are also broken by gender below.¹ The most frequently affected groups are female scientific personnel aged 15-29 (including the small number of trainees who constitute the youngest age group within the Max Planck Society) and 30-44. 8.2% of the former (15-29) and 9.7% of the latter (30-44) indicated having experienced sexual harassment or discrimination.



Sexual harassment and/or discrimination: self-attribution

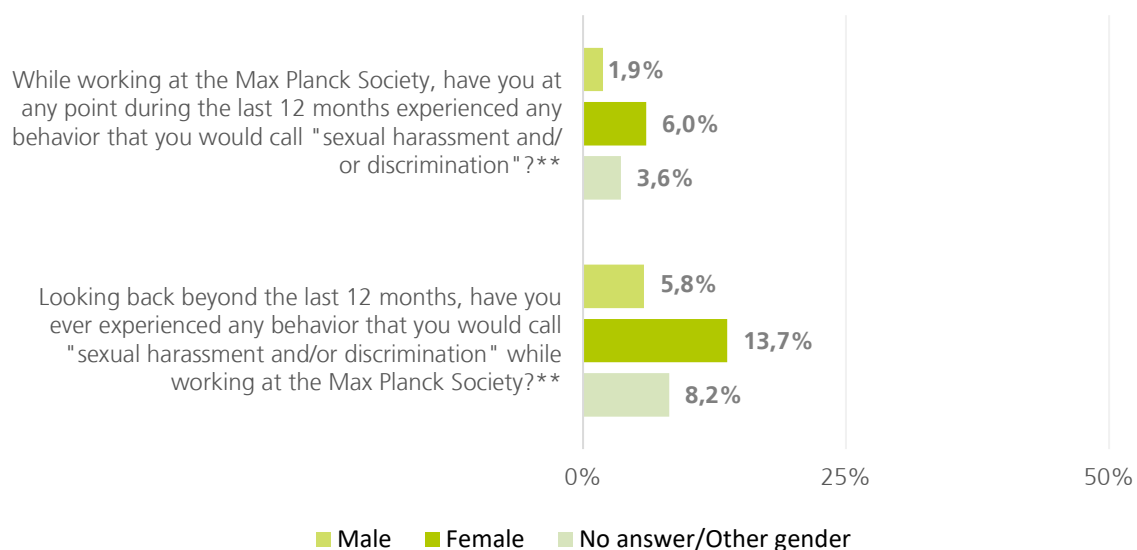


Figure 14: Response behavior of Max Planck Society employees and researchers with respect to questions about self-ascribed experiences of sexual harassment and/or discrimination, broken down by gender.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 8183; n(min.) = 8,038; *P ≤ 0.05, **P ≤ 0.01.

¹ A third category, namely "No answer/Other gender", is also included here. To protect respondents' personal data and privacy, "Other gender" was not registered as a separate category from "No answer". As the resulting combined category is not clearly interpretable, it is omitted in the following remarks.

Clear 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%. Among female scientists and researchers who stated that they had been sexually harassed or discriminated against, a significantly larger number are citizens of non-EU countries (10.4%) than other EU-countries (8.0%) or Germany (7.2%).

Female scientists and researchers more often subjected to personally offensive sexist remarks

Sexist behavior comprises all conduct in which one person treats another in such a way as to convey explicit antipathy towards 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 15). When it comes to being treated in a degrading or condescending manner because of one’s gender, the difference between men and women is particularly pronounced, although men have also been targeted by personally offensive sexist remarks to a significant extent (figure 15).

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).



Sexist behavior

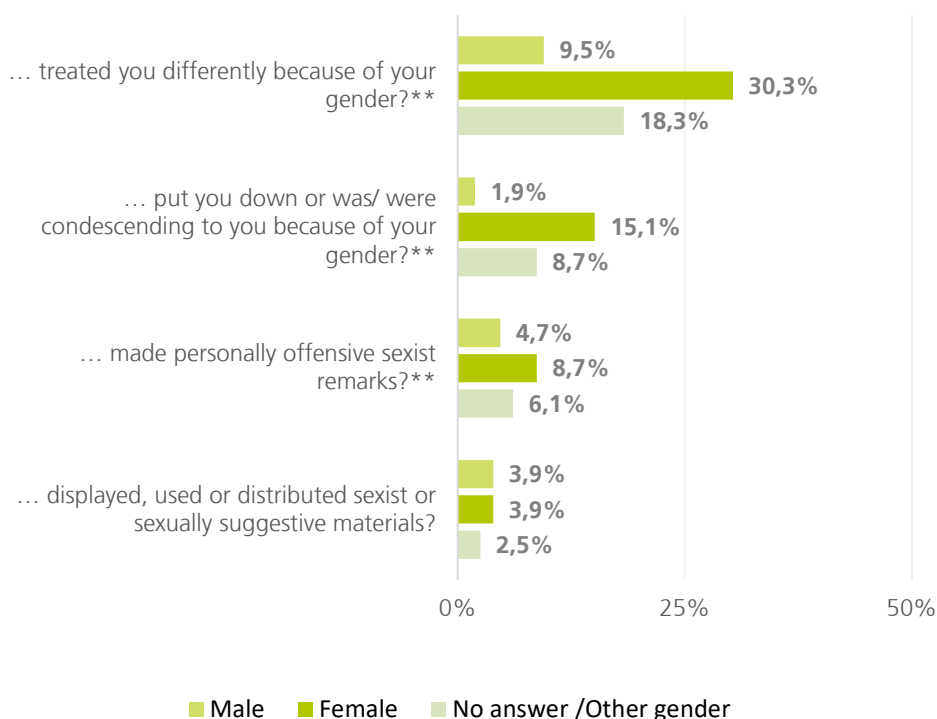


Figure 15: Response behavior of Max Planck Society employees and researchers with respect to questions about experiences of sexist behavior, broken down by gender.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 8,212; n(min.) = 8,113; *P ≤ 0.05, **P ≤ 0.01.

People in leadership positions most likely to experience 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, 22.5% of postdoctoral researchers and 17.6% of other research associates. When only women in scientific leadership positions are taken into account, the number rises to 59.1%, as opposed to 11.5% among men.

Noticeably more women than men receive offensive comments on their appearance

Figure 16 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 especially women in the younger age groups are subjected (11.2% in the age group 15-29).



Rude or offensive behavior

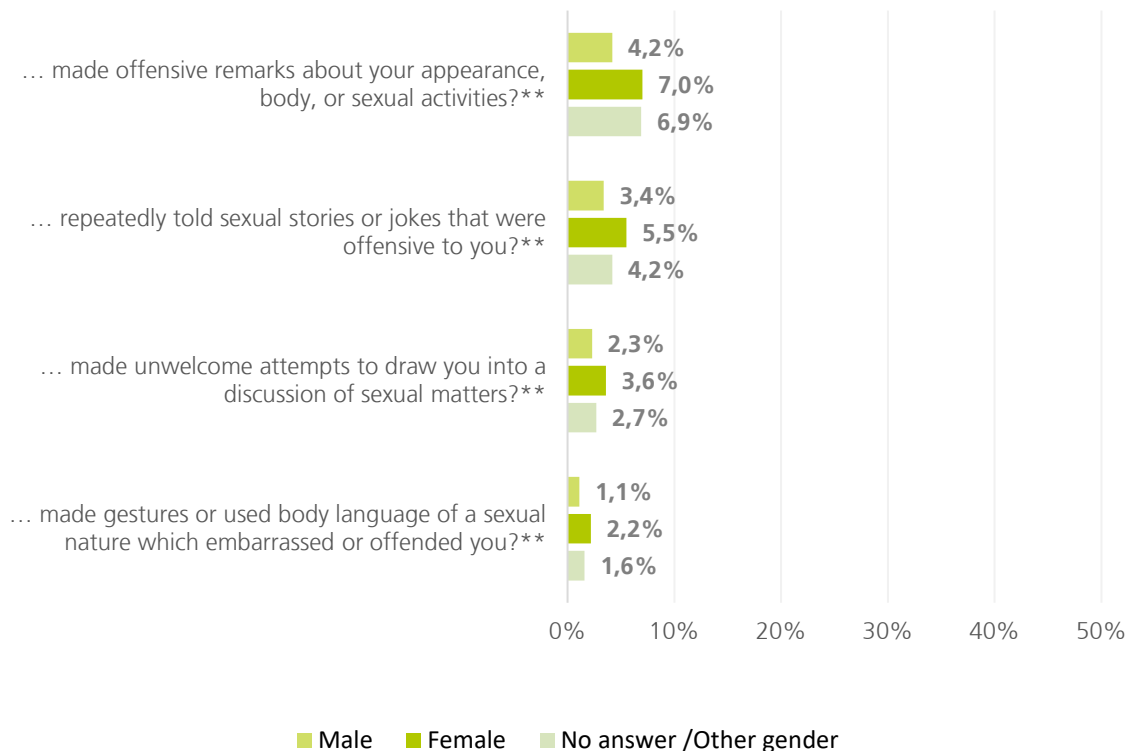


Figure 16: Response behavior of Max Planck Society employees and researchers with respect to questions about experiences of crude or offensive behavior, broken down by gender.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 8,216; n(min.) = 8,207; *P ≤ 0.05, **P ≤ 0.01.

Unwanted physical contact as most common form of unwanted attention

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 17). Altogether 7.4% of female respondents reported having experienced at least one of the types of behavior in figure 17 – more than twice the corresponding number of 3.3% among men.



Unwanted sexual attention

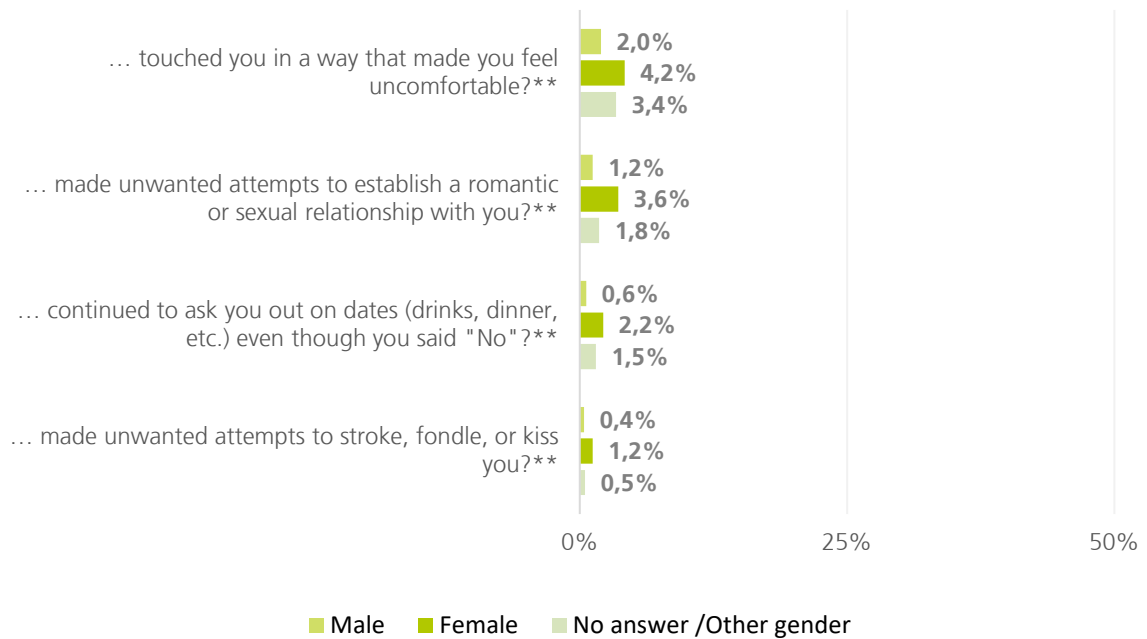


Figure 17: Response behavior of Max Planck Society employees and researchers with respect to questions about experiences of unwanted sexual attention, broken down by gender.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 8,213; n(min.) = 8,204; *P ≤ 0.05, **P ≤ 0.01.

Single cases of sexual pressure noted

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 some form of sexual pressure (figure 18).



Sexual coercion

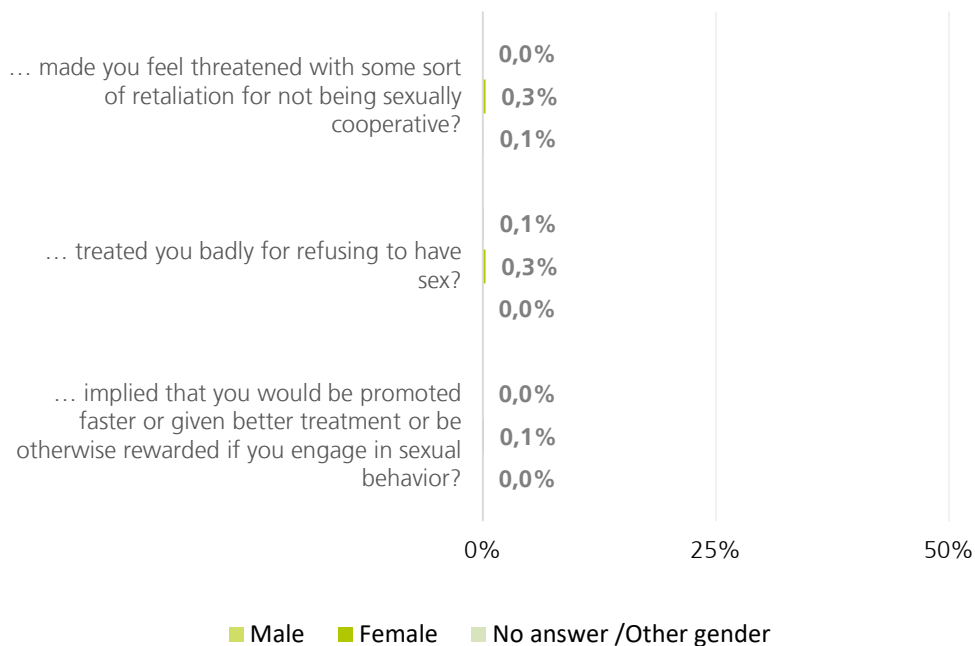


Figure 18: Response behavior of Max Planck Society employees and researchers with respect to questions about experiences of unwanted sexual pressure, broken down by gender.

The percentages represent the proportion of respondents who answered the relevant questions with „Occasionally“, „Monthly“, „Weekly“ or „Daily“.

n(max.) = 8,214; n(min.) = 8,202; *P ≤ 0.05, **P ≤ 0.01.

Conflict procedures

Improvement of the 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. Examples include the designation of the two members of an external law firm as persons of trust, 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.

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 of the Max Planck Society and its individual institutes..

Only a minority of occurrences 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 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%).

Half of those affected do not consider the conflict resolution mechanisms effective

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 2, those affected by bullying are considerably 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.

Reporting bullying carries a greater risk of negative consequences

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 2, 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 2: People who indicated having experienced bullying/sexual discrimination in the 12 months preceding the survey, who had reported it and indicated dissatisfaction with the results, regarding their reasons for being dissatisfied

Multiple selection possible.
n(max.) = 212; n(min.) = 23.

Consequences of a report	Bullying	Sexual discrimination
The report had no negative consequences.	41.5%	69.6%
The report had negative consequences for the cooperation with my colleagues*.	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%

Bullying as a group problem, sexual discrimination as a bilateral problem

As can be inferred from the data in table 3, bullying tends to be a group phenomenon, which in two thirds of all cases involves at least two other persons who act as „bullies“. Table 4 shows that these people usually include the affected party’s immediate superior and/or fellow group members. In comparison to this, sexual discrimination is – broadly speaking – a bilateral problem, which in three quarters of all cases involves a maximum of two other people. Table 4 suggests that, unlike in the case of bullying, working relationships play a minor role in sexual discrimination.

Table 3: People who indicated having experienced bullying/discrimination in the 12 months preceding the survey, regarding the number of other people involved

Multiple selection possible.
n(max.) = 831; n(min.) = 284.

Number of people involved	Bullying	Sexual discrimination
1	33.7%	51.8%
2	25.4%	23.2%
3	20.3%	10.2%
4	7.6%	1.4%
5	4.7%	1.8%
More than 5	8.3%	11.6%

Table 4: People who indicated having experienced bullying/sexual discrimination in the 12 months preceding the survey, regarding their working relationship with the person or people involved

Multiple selection possible.
n(max.) = 852; n(min.) = 323.

Relationship to the people	Bullying	Sexual discrimination
Immediate superior	46.2%	26.3%
Other superior	29.3%	26.0%
Fellow group member	42.1%	28.2%
Other colleague	28.2%	39.6%

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