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SHORT ANALYSIS

Manifestations of power abuse in academia and how to prevent them

Title	Manifestations of power abuse in academia and how to prevent them
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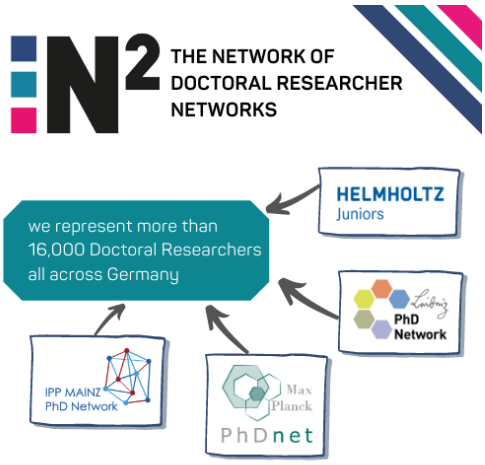
Manifestations of power abuse in academia and how to prevent them



This article results from a cooperation within N², a network of the Helmholtz Juniors, Leibniz PhD Network and Max Planck PhDnet. The International PhD Program Mainz (IPP) is an associated member of N². Representing more than 16.000 doctoral researchers, it is the biggest network of doctoral researchers in Germany. The N² member networks regularly conduct surveys and, individually or in the framework of N², represent issues concerning the doctoral researchers of their networks towards the respective research organizations as well as to the public.

In recent years, evidence of cases of power abuse in academia have been made public in various news reports about poor leadership, bullying and even sexual harassment of employees by superiors at universities (Boytchev, 2020; Hartocollis, 2018; Schenkel, 2018) and non-university research organisations in Germany and abroad (Devlin & Marsh, 2018; Weber, 2018). In addition, surveys amongst employees (especially doctoral researchers) at these institutions has revealed alarming numbers of instances of (witnessing) bullying[1], discrimination or sexual harassment by a superior (e.g., Arcudi et al., 2019; Beadle et al., 2020; Olsthoorn et al., 2020; Peukert et al., 2020; Regler et al., 2019; Schraudner et al., 2019).

These numbers and reports suggest that the basis for these incidents is inherent in the structures of the academic system. The academic system, not only in Germany, is set up very hierarchically – people with an established career (e.g., a professor, a research group leader, or a director of a research institute) sit at the top, while early career researchers, continuing their education and advancing their career, are at the lower end of the hierarchy.

In this article we outline the manifestations of power hierarchy and dependencies in the academic system from the point of view of doctoral researchers (DRs) – based on findings from surveys on the situation of DRs at non-university research organisations in Germany, as well as on our own experiences as DRs and elected representatives of the DRs in the Helmholtz Association, Leibniz Association, Max Planck Society and IPP Mainz, respectively. Moreover, we give recommendations on how to navigate and prevent instances of power abuse and summarize which measures have already been taken by research institutions such as those with which N² member networks are affiliated.[2]

[1] In German reports of abusive behaviour at the workplace, the word „mobbing“ is often used for „bullying“.
[2] A detailed report on our results and observations can also be found in the contribution to the 2020 conference “Absender unbekannt. Anonyme Anschuldigungen in der Wissenschaft“ (Lasser et al., accepted).

Data collection on supervision and instances of Power Abuse in the 2019 N² harmonized survey

In 2019, the N² members conducted harmonized surveys in their networks. The individual survey reports (Beadle et al., 2020; Olsthoorn et al., 2020; Peukert et al., 2020) shed light on the relationship between supervision, working conditions, mental health and experiences of abusive behaviour. Supplemented by reports from other large national (Briedis et al., 2018; Schraudner et al., 2019) and international surveys (Wellcome Trust, 2020; Woolston, 2019), they serve as evidence for the status quo of the prevalence of power abuse in (German) academia, which we outline below.

Prevalence of conflict cases amongst early career researchers

According to our surveys 10-15% of DRs report to have been subjected to bullying by a superior at least once (Figure 1A). Only one third of those who have experienced bullying reported the incident to an official body (Figure 1B) and out of those, only about a quarter are satisfied with how the matter was resolved (Figure 1C). In other surveys (e.g., Schraudner et al., 2019), the respondents' two most important reasons for not reporting an incident are their concerns that there would be no consequences for the perpetrator and the fear that their career would be impeded. Indeed, significant numbers reported general negative consequences or specific negative consequences for their career after they made a report.

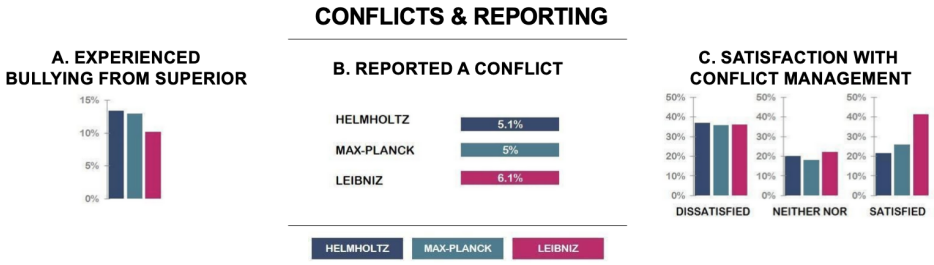


Figure 1: Experiences with bullying and conflict reporting.
A: Participants were asked "While working at your institute/center, have you at any point been subjected to bullying by a superior?". The graph shows the fraction over all respondents who have at least once experienced bullying by a superior.
B: Participants were asked "Did you ever report a conflict with a superior?". The graph shows the fraction over all respondents who answered "yes".
C: For those who answered yes in (B), participants were asked "Please indicate the level of satisfaction with the consequences of your report?". The answers were given on a scale from "very dissatisfied" to "very satisfied" and are grouped here (dissatisfied = very dissatisfied + dissatisfied, neither nor, satisfied = very satisfied + satisfied)

Numbers compiled from the individual survey reports by the respective networks that are part of N² (Beadle et al., 2020; Olsthoorn et al., 2020; Peukert et al., 2020). Graphic created by Theresa Kuhl, Helmholtz Zentrum München – German Research Centre for Environmental Health.

Amongst the DRs represented by N², about a quarter of DRs are dissatisfied with their supervision (Figure 2A) and about a third consider giving up their PhD "often" or "occasionally", a tendency that correlates with experiences of bullying (Figure 2B, see also Briedis et al, 2018). These findings

universally show that DRs perceive the strong and multiple dependencies between them and their supervisors as problematic, leading to dissatisfaction, mental health problems[3] and thoughts about quitting.

Figure 2: Satisfaction with supervision and aspects of academia.
A: Participants were asked "How satisfied are you with your PhD supervision in general?". The answers were given on a scale from "very dissatisfied" to "very satisfied" and are grouped here (dissatisfied = very dissatisfied + dissatisfied + rather dissatisfied, satisfied = very satisfied + satisfied + rather dissatisfied).
Numbers compiled from the individual survey reports by the respective networks that are part of N[2] (Beadle et al., 2020; Olsthoorn et al., 2020; Peukert et al., 2020). Graphic created by Theresa Kuhl, Helmholtz Zentrum München – German Research Centre for Environmental Health.

Multiple dependencies in academia

Why do conflicts between supervisors and DRs occur and how do they manifest?

Due to the academic hierarchy, power differentials between DRs and their superiors exist in different, often interconnected areas of academic life. In the majority of cases, the employer and scientific supervisor are the same person, who therefore has administrative power over future employment and contract extensions as well as over evaluation of scientific results. These professors, institute directors, research group leaders, or principal investigators (PIs) and their relationship to the DR have a direct impact on the DR's academic reputation and future successful navigation through the academic system (e.g., as co-authors on publications and grant applications, through grading of theses, or through recommendation letters). These various dependencies on the superior put the DR in a vulnerable position. They have a lot to lose and may therefore be unable or unwilling to defend themselves in cases of conflict. A closer look at these characteristics of power differentials reveals their potential as sources of conflicts and abusive behaviour – but also the opportunity to alleviate them through measures and systematic changes.

Power through scientific evaluation

Traditionally, in German universities and research institutions, the main supervisor of a dissertation is also the main evaluator of the project. This means that they have to assess the quality of a thesis which results from work they supervised themselves. This conflation between supervision and assessment often results in a conflict of interest that can take many forms.

[3] For a detailed report on the mental health crisis among doctoral researchers see our previous post on this blog (https://elephantinthelab.org/mental-health-crisis-doctoral-researchers/).

On the one hand, there are no incentives for superiors to truthfully evaluate the work they have supervised (sometimes on a daily basis): Senior researchers (such as PIs or professors) are often assessed on the number of DRs they graduate – an incentive to let people pass with low grades rather than failing them due to substandard work.

On the other hand and more commonly, supervisors can use the threat of a bad thesis evaluation to compel work from the DRs beyond what has been contractually agreed upon – for example when it comes to scientific publications. The duration required to publish in an academic journal varies greatly, depending on the journal and field. Although the researcher can assess the average time it takes from submission to acceptance for a specific journal, once the article is submitted, they no longer have control over how quickly the submission progresses through the peer review system (Huisman & Smits, 2017). In turn, this can delay the thesis completion by many months.

Figure 3: Employment situation and working hours of DRs in the N² member organizations. Numbers compiled from the individual survey reports by the respective networks that are part of N² (Beadle et al., 2020; Olsthoorn et al., 2020; Peukert et al., 2020). Graphic created by Theresa Kuhl, Helmholtz Zentrum München – German Research Centre for Environmental Health.

Power over type and length of employment

Researchers usually have a high intrinsic motivation to work extensively on their research, and this is exacerbated by the high pressure and competitive environment in academia (Woolston, 2019). However, pressure from supervisors is given as a main reason for long average working hours (see Figure 3A), work on weekends and a tendency not to take vacation time in academia. This pressure is intensified by the precarious employment situation of the majority of DRs.

Employment contracts for DRs are almost always time-limited: 98% of DRs working at universities or non-university research institutions have fixed-term contracts (BUWIN, 2021, p. 111); for postdocs or scientists without tenure under the age of 45 this number still ranges between 84-96% (BUWIN, 2021, p.112). Data reveals that a PhD in Germany takes between 3.5 and 7.1 years, depending on the subject (BUWIN, 2021, p. 138; Jaksztat et al., 2012; and see Figure 3B). However, our survey results show that many DRs receive a contract with a duration of less than 36 months (Figure 3C). These contract durations are not long enough to ensure the completion of a PhD within the first employment contract and make it very likely that DRs will need at least one contract extension to complete their degree. The situation is even more precarious for other early career researchers such as postdocs and junior group leaders. In 2017, half of all employment contracts were reported to be limited to less than one year (BUWIN, 2017, p.132),

even though research projects regularly take substantially longer to be completed. This situation seems to have improved slightly, with average contract durations of 28 months for postdocs (BUWIN, 2021, p. 116/117).

Decisions about further employment of DRs are often taken by a single person who has power over the research unit, institute or third-party funding on which the DR is employed. This means that DRs regularly depend on them to extend their contracts. While a permanent contract cannot be easily terminated as it usually requires justification and/or involvement of the works or staff council, employees with short-term contracts can be easily let go by simply not renewing their contract. In addition to increasing the researchers' financial vulnerability, these precarious employment conditions are especially threatening to international researchers from outside the European Union, who might lose their residence permit, which is directly tied to their working contract.

Power over reputation and knowledge transfer

Particularly at the beginning of an academic career, DRs are dependent on their superiors to share their knowledge and experience of the academic sphere with them, in order to be successful in academia. For example, the PI or professor is much more knowledgeable about appropriate funding agencies, appropriate venues for publications, conferences and the scientific network.

Researchers profit significantly when their supervisors introduce them into relevant academic circles and help them move through the bottleneck of academic hierarchy in general. This puts supervisors in a unique position of power, to foster or damage the reputation of the DRs. Less than half of the DRs report that they receive the support they need from their supervisors to further their career. This can manifest itself in supervisors allowing or preventing DRs from attending conferences and criticizing their graduates in front of other senior researchers and potential future employers. The most formal shape that this power differential takes is the letter of recommendation which is required for almost all applications to future academic and non-academic positions. Supervisors have no obligation to provide such a letter and if they do, they have no obligation to substantiate a negative assessment of the DR. Moreover, in most academic fields, supervisors have the power to decide about authorship contributions in academic publications. In many cases, at least one first or corresponding author publication is required to receive a doctorate and to successfully apply for a research position or grant after completion of the PhD. The pressure to "publish or perish" leaves DRs dependent on their supervisor to grant them this (first) authorship (Wu et al., 2019).

Lastly, it is much harder for international researchers (especially on short-term contracts) to familiarize themselves with the bureaucratic structures, workplace regulations and their own employment rights.

The vicious cycle of abusive behaviour in academia...

As outlined above, power differentials exist in many aspects of academia and DRs depend on their supervisors for their livelihood, reputation and future career. These systemic conditions lay the ground for ubiquitous potential conflicts. However, as incidents of abusive behaviour are rarely reported, the academic system is deprived of much-needed feedback from a majority of its members, hindering improvement. At worst, DRs might pass on their own experiences of bad and abusive supervision when they become postdocs or when it is their turn to supervise and lead a research group – the vicious cycle of bad scientific leadership and dependencies. This situation is damaging for the academic system as a whole, as it rewards conformism and alienates original thinkers and creative young minds from research. This way, the competitiveness of academia is reproduced time and time again, leaving researchers little room to pursue their original goal: to advance scientific progress (see also Dirnagl, 2021).

Therefore, we propose a variety of measures that have the potential not only to resolve but prevent conflicts related to power differentials and break the vicious cycle. The recommendations are based on a position paper on Power Abuse and Conflict Resolution published by our network (N^2, 2019). We would like to stress that some recommendations we describe here are already (being) implemented in research institutions, also through fruitful exchanges between the institutions and PhD representatives or networks (see Infobox).

Conflict Resolution & Prevention of Power Abuse

Measures implemented by the Helmholtz Association (HGF), the Max Planck Society (MPG) & the Leibniz Association (WGL).

Many research institutions and universities have implemented measures for prevention and resolution of conflict. In many instances, these measures were the result of a fruitful collaboration with the respective PhD networks. The following measures have been implemented in the organisations represented by N^2:

Supervision agreement and Thesis Advisory Committees

- 55-70% of DRs have a supervision agreement and/or a Thesis Advisory Committee (N^2 harmonized survey 2019).
- Supervision agreement composed by Leibniz PhD Network in 2020, already implemented in some WGL institutes (link).
- Supervision and employment guidelines on an institutional level are stated in doctoral guidelines (HGF, MPG, WGL)

Leadership trainings

- MPG started seminars and coaching for directors and research group leaders within the framework of the Planck Academy founded in 2020.
- The HGF has introduced the Helmholtz Leadership Academy.
- The WGL has established a lecture program on leadership (Führungskolleg).

Conflict reporting and resolution

- In order to deal with conflicts, institutes and centers of the HGF, MPG and WGL have local ombudspersons.
- The WGL introduced a central ombuds committee in 2020 (link).
- The HGF is currently establishing a central ombudsperson with the new good scientific practice guidelines.
- The MPG assigned an external law firm as an independent contact point in 2018, and in 2019 established an Internal Investigations Unit as a central reporting office that can initiate investigations.
- The WGL created the external Advice Center for Conflict Guidance and Prevention.

… and recommendations for how to break it

Supervision agreements

First of all, power differentials can be navigated and power abuse prevented if DRs and their supervisors sign and adhere to a supervision agreement, which clearly outlines roles, expectations and procedures from both sides. Such an agreement can go a long way in preventing a mismatch of expectations or misunderstandings right from the beginning of a project and side-stepping potential conflicts that could escalate. They also establish a level of accountability for the supervision provided, and also for the work expected from the DR.

Thesis Advisory Committees

Moreover, PhD supervision should be spread out to more than one person, ideally in the form of a Thesis Advisory Committee, which includes external, independent advisors who consult on the progress of the dissertation project. This is already common practice in the UK, but also in most institutes belonging to the Max Planck Society (see infobox).

At the same time, when it comes to thesis assessment, there should be a clear division between main supervisor and main referee. At the minimum, as suggested also by the Hochschulrektorenkonferenz (HRK, 2012), external reviewers should be included in the thesis evaluation and grading process.

Leadership and communication trainings

An additional measure which promises to alleviate the instances of power differentials outlined above, is to introduce leadership training for any senior researcher taking on supervision and/or leadership responsibility. This addresses the assumption that power abuse often does not happen out of spite but is rather an expression of the inability to effectively manage and lead a research group. With the latest incidents of power abuse (Boytchev, 2020; Devlin & Marsh, 2018; Hartocollis, 2018; Weber, 2018), it has become once more apparent that scientific excellence does not equal good leadership skills. Therefore, any researcher who is responsible for the supervision of DRs should take part in mandatory and regular leadership training in order to learn how best to guide the DRs and their other employees through the existing differentials in reputation, knowledge and employment status. At the same time, doctoral researchers and postdocs would benefit from training courses focusing on communication and cultural skills, empowerment for networking and career choices, and knowledge about navigating the academic system and its obstacles.

Confidential and independent conflict resolution

Whenever a conflict occurs, the victim should have the opportunity to make a confidential report of the incident with the expectation of a timely investigation. Therefore, it is important that the existing reporting structures are clearly outlined by the institution and regularly communicated to its members. Conflict resolution should involve a multi-staged investigation, as appropriate to

the level of escalation of the conflict. Such a process should start at local conflict resolution mechanisms (Ombudsperson, works council etc.) and include the possibility to involve investigation of the conflict case by an independent committee. All steps of the conflict resolution mechanism must be clearly documented and communicated to all parties involved. In all instances, when the victim feels it is necessary, their anonymity must be protected. The trust in these mechanisms is key to establish them as a feedback structure for researchers from all levels.

Protection through anonymity

From our own experience as representatives of DRs and through studying the data from our surveys, we know that a strong motivator for DRs not to report incidents of abusive behaviour is the fear of negative consequences for their careers. Thus, the possibility to anonymously contact people responsible for conflict resolution (such as an ombudsperson or gender equality officer) allows victims of power abuse to receive support without the fear of direct repercussions from their supervisor. Importantly, the identity of the person reporting a conflict needs to remain anonymous to the offender, even after the conclusion of the investigation, to protect the reputation and career of the victim.

Recently, anonymous accusations in the academic context have been discussed critically (e.g., Buchhorn & Freisinger, 2020). We acknowledge that allegations of power abuse can have a very damaging impact on the reputation and career of senior researchers as well. However, firstly, according to a recent report by the German “Ombudsman für die Wissenschaft” (Czesnick & Rixen, 2020), anonymous accusations only account for approximately 10% of all accusations. Secondly, assessing the substance of an accusation can be achieved without knowing the identity of the accuser. Lastly, anonymity extends to the potential offender as well, ensuring their opportunity to defend themselves and resolve the incident without damage to their reputation.

Overall, anonymity is an absolute necessity to alleviate the power differentials between DRs and senior researchers and encourage reporting of incidents and corrective action.

Taking into account the measures which have already been implemented (see Infobox), the developments are promising. As representatives of doctoral researchers, we regularly communicate our recommendations to various stakeholders of the academic system within our organizations and beyond and highly appreciate when they are taken seriously and when PhD representatives are invited to take part in the development of appropriate measures.

We recognize the importance of and the need to change the organizational culture surrounding power differentials in academia. While a system is hard to change, we believe that implementation of the measures outlined above will reduce the incidences of abusive behavior and enable the academic system to deal with conflicts that it currently cannot resolve in a satisfactory manner. Only through collaboration on all levels of the academic hierarchy can we

maintain a system that provides a healthy feedback culture, offers a supportive and sustainable working environment, and fosters excellent research.

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