



PhDnet

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PhDnet

# Perceptions of publication pressure in the Max Planck Society

The Max Planck Society represents a unique place for principal investigators, but its benefits are not necessarily reaped by the students, argue the Max Planck PhDnet Survey Group. Policy changes, however, could alleviate publication and other pressures for students.

The Max Planck Society (MPS) is founded on the philosophy that the reins of science should be placed in the hands of eminent researchers. Without needing to justify their research by the calculus of short term or applied outcomes, Max Planck directors are given the independence to pursue riskier and potentially more revolutionary scientific endeavours. Commonly referred to as the Harnack principle ([https://www.mpg.de/39596/MPG\\_Introduction.pdf](https://www.mpg.de/39596/MPG_Introduction.pdf)), the vision of the MPS is to create the ideal environment for cultivating scientific innovation.

Yet how is this environment perceived through the eyes of a PhD student? While directors are offered a unique level of security and independence to pursue riskier projects, the same is not necessarily true for students. How do challenges such as publication pressure affect PhD students in the MPS? And how can these challenges be overcome?

As representatives of the PhDnet (<https://www.phdnet.mpg.de/home>), the doctoral network of the MPS, we conducted a survey across the more than 80 Max Planck institutes to understand the diverse experiences of PhD students (PhDnet report: <https://doi.org/10.17617/2.3052826>). Overall, most students reported a positive experience, with 71% being satisfied or very satisfied. However, there is still considerable variability in the data, allowing us to identify important challenges, including those related to publication pressure.

While the MPS does not enforce publication requirements, PhD students are matriculated at an affiliated university, which commonly requires a minimum number of publications as a condition for awarding the degree (i.e., a cumulative dissertation). PhD positions in the MPS are funded for 3 years, yet only 58% of students in their third year or later have published at least one peer reviewed journal paper. Given that the average PhD takes 3.9 years in Germany ([https://www.bmbf.de/files/1\\_Bericht\\_an\\_die\\_GWK\\_2015.pdf](https://www.bmbf.de/files/1_Bericht_an_die_GWK_2015.pdf), p. 44),

there is substantial pressure to publish and complete the degree requirements before funding runs out. Without clear guidelines about the granting of extensions, some students are forced to live off of savings, family support, or unemployment money to finish their PhD. For international students, the consequences may be more dire, since residence permits are often tied to the length of the PhD contract. Indeed, PhDs think more often about giving up near the end of their funding period, with females considering quitting more often than males and students in the humanities more often than those in other sections. Taken together, financial pressure and uncertainty about legal residency are compounding factors tightly interwoven with publication pressure.

Aside from degree requirements, students may also experience publication pressure from their supervisors. In our survey, approximately half of PhD students reported that they were dependent on their supervisor or other senior researchers to decide when and where a paper would be submitted. Having results fall short of expectations and conflicts with one's supervisor were among the most common factors for students considering giving up their PhD, with many students feeling pressured to work overtime and worried about future career prospects.

To the credit of the MPS general administration, there is an ongoing and open dialog with the PhDnet, which has resulted in many welcomed improvements in recent years. For instance, the vast majority of PhD students have transitioned from a stipend-based income to being employed on a contract, conferring many benefits and financial security through German employment law, including unemployment insurance and healthcare. This alleviates some of the financial pressures faced by students, allowing them to focus on their scientific work and publications. Our data also suggests that contracts lead to higher satisfaction and more frequent contact with their supervisors.

Yet there are still opportunities for improvement. For instance, the MPS

already has two important guidelines that could address many challenges related to publication pressure. However, these guidelines are not currently enforced, with directors sometimes even unaware that they exist. The “Four Eyes” policy states that each student should be supervised by two independent supervisors. There are many advantages of having dual supervisors, but crucially, this policy reduces a student's dependency on a single supervisor's decisions regarding the direction and publication of their work. Additionally, the MPS defines the funding structure of the PhD as “3 + 1” years in their organizational handbook, specifying up to an additional year of extensions for students who have not yet submitted their thesis. However, there are no standard criteria by which extensions are granted, if at all. Clearer, enforceable guidelines regarding extensions could provide students with a modest level of security to pursue innovative and potentially riskier projects, rather than being pressured to publish quickly.

In summary, the Max Planck Society can be a fantastic place to do science and complete a PhD. It is founded on solid principles of scientific independence and emphasizes quality over incremental work. Yet there are also opportunities to reduce undue pressure from PhD students. Enforcing existing policies, such as the “Four Eyes” policy and the “3 + 1” year funding system, are important first steps to alleviate these pressures. Completing a PhD is always challenging, but a strong and productive relationship between students and the MPS administration can help ensure that students enjoy the benefits of this unique academic system. □

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**Competing interests**

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