

of cognition

Doctoral Candidate Handbook



Doctoral Candidate Handbook

Part IV - Doctoral Phase

A joint initiative between the
Max Planck Society and leading German Universities
together with
Fraunhofer-Gesellschaft, Helmholtz Association,
and University College London

Information given in this document is subject to change and without warranty

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3. Welcome to the doctoral phase of the MPSCog!

At the beginning of the doctoral phase, candidates concentrate on the research work for their doctoral thesis. Candidates are also required to attend two Cognition Academies per year, except for the last year with only one Academy. These Academies comprise presentations by the candidates, faculty, and guest speakers on their research topics, as well as soft-skill courses/workshops (Figure 1).



Figure 1. Overview of the three-year doctoral research phase.

3.1 First year of the doctoral phase (second year of the program)

The candidates settle into the labs and start their doctoral research projects. In order to secure the stable foundation for the thesis, a few administrative accomplishments must be fulfilled. We encourage the candidates to invest some time at the very start of the doctoral phase to discuss with their supervisors the expectations about the supervision, content of the project (*Project Proposal*, plan for three years) and university registration (*Promotionsordnung*, suitable doctoral degree). The most important landmarks of the transition to the doctoral phase are depicted on Figure 2.

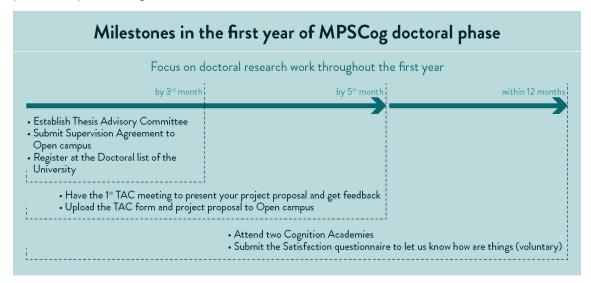


Figure 2. Milestones at the beginning of the doctoral phase.

Candidates are supposed to continue collecting all the data about their academic achievements and information about their progress within OpenCampus platform.

Please note: In OpenCampus, the doctoral phase is represented by the progress trees of Years 2-4 of the program.

The Supervision Agreement template and Project Proposal Instructions are, however, available already within the Year 1 progress tree (see Figure 3). This way, candidates can familiarize themselves with the documents already during the orientation year, before the access to OpenCampus Year 2 is granted.

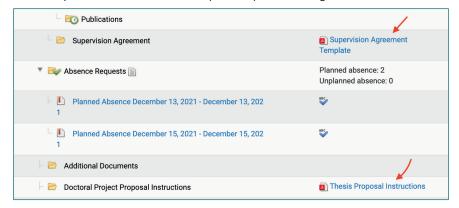


Figure 3. OpenCampus: Supervision Agreement template and Project Proposal instructions available within the progress tree of Year 1.

Within OpenCampus the progress trees of the doctoral phase (Years 2–4) work in a dependency way, where the approval by the coordination team is required before the next submission step can be done (see Figure 4). For example:

- The names of TAC members added by the candidate must get approved before the Supervision Agreement can be uploaded.
- Once the Supervision Agreement is approved, the TAC form is made available in the tree.
- Finally, the date and form for the TAC and the Project Proposal can be uploaded and approved.

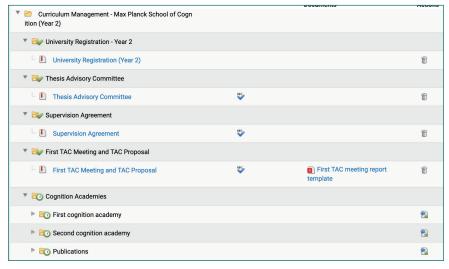


Figure 4. OpenCampus: Progress tree of Year 2 with multiple approval steps.

3.1.1 Thesis Advisory Committee (TAC)

We want to make sure that the doctoral projects are well supervised from the beginning. Therefore, candidates are requested to establish a Thesis Advisory Committee (TAC) right at the start of the doctoral phase (within the first three months).

The TAC supports the doctoral candidate throughout the doctoral phase, up to the preparations for the defense. The committee members must have expertise in the topic of the research project and meet (in person or online) at least once a year with the candidate. The objective of the meetings is to monitor the progress of the project, provide critical feedback and guidance, and ensure that a high-quality thesis is completed within the 3-year period.

Candidates are advised to discuss with their main supervisor the potential candidates for TAC members as early as possible. This can be done shortly after the onset of the doctoral phase. Once the TAC is formed, all parties need to sign the Supervision Agreement (see the template of the document on Open Campus).

Please note: The first supervisor must be an MPSCog Fellow.

Structure of the Thesis Advisory Committee (TAC)

The TAC consists of two to four members, selected by the doctoral candidate in consultation with the thesis supervisor. The candidates should list the names of TAC members within OpenCampus Year 2 (Figure 5).

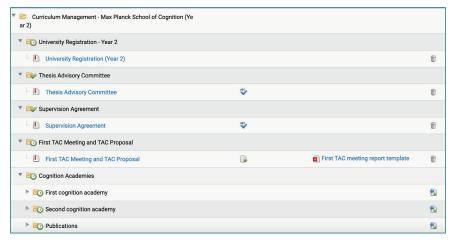


Figure 5. OpenCampus: List of Thesis Advisory Committee members within Year 2 tree.

- **Supervisor(s):** One main supervisor (MPSCog Fellow) is required but it is also possible to have one additional co-supervisor.
 - Role: Supervising the doctoral project with regard to its content and methods. Candidates carry out their research work in the supervisor's laboratory, and regularly discuss and present data to the supervisor and research group during lab meetings. The supervisor holds a professorship at a local university. The specific faculty to which the first supervisor is affiliated will grant the doctoral degree at the end of the doctoral phase.
- Advisor(s): One or ideally two advisors. At least one of the advisors should be independent from the supervisor,
 i.e. in a different department than the main supervisor and with no current scientific collaborations with the
 supervisor. Both advisors should be able to provide an objective assessment of the candidate's progress.
 - Role: Support the candidate by providing academic counseling for the doctoral project, as well as ensuring appropriate supervision of the candidate. They can be approached if there are problems regarding either the project or the supervision.

Please note: The independent TAC advisor may be in charge of chairing the TAC meeting, filling out the TAC assessment form and keeping track of time during the meeting.

Important: It is the candidate's responsibility to **invite** the TAC members, **schedule** TAC meetings, **collect** the signatures during or after the meeting, and **submit** the completed forms to the OpenCampus platform.

Supervision Agreement

As soon as the TAC is established, the candidates need to fill out and circulate the Supervision Agreement among the members of the TAC in order to collect their signatures (Figure 6).

It is important that the candidate as well as the supervisors read the document carefully before signing it. MPSCog Supervision Agreement is binding for the candidate and the TAC members. Some of the crucial content points that Supervision Agreement covers are:

- Definition of the time frame of the doctoral phase (three years)
- Listing the candidate's and supervisor's responsibilities and obligations
- Explanation of the role of all TAC members throughout the doctoral project
- Guidance in case of conflict management
- Reference to general and local Good Scientific Practice regulations in force in case of the specific doctoral project



Figure 6. Supervision Agreement template: Screenshot of the front page of the document

As mentioned above: the template of the document is available in the tree of Year 1. Once completed and signed it must be submitted in the Year 2 progress tree.

First TAC Meeting

Candidates need to schedule their first TAC meeting within the first five months of the doctoral project (probation time period).

The template of the first TAC form is available on OpenCampus/Year 2 after the submission and approval of the Supervision Agreement (Figure 7).

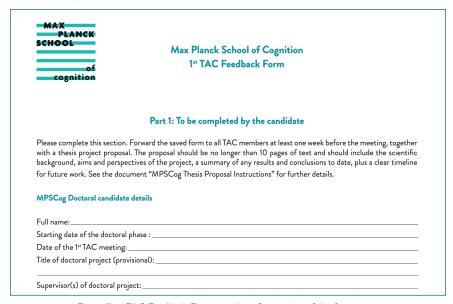


Figure 7. $1^{\rm st}$ TAC Feedback Form template: Screenshot of the front page.

Candidates need to submit the first TAC report (partially filled out) to the TAC members and the *project* proposal one week before the scheduled **TAC** meeting.

Format of TAC meetings

- 1. Candidate's project presentation addressing specific scientific problems (ca. 20 minutes)
- 2. Group discussion period (ca. 20 minutes)
- 3. Discussion period without the candidate (chairperson invites candidate to step out of the room)
 - Evaluation of the candidate's performance/formulation of recommendations
 - Completion of the "Evaluation of 1st TAC meeting/report" section below
 - Review of the candidate's training plan and recommendations/priorities
- 4. Chairperson presents views and recommendations to the candidate

- 5. Final discussion/signatures
- 6. End of the meeting

The purpose of the meeting is to present and discuss the *project proposal* with the TAC members. The TAC assesses the following criteria, which the chairperson will record on the TAC assessment form (in the absence of the candidate):

- Scope of the project
- Potential impact of the project
- · Potential risks involved in the project
- Evaluation of the candidate's technical aptitude
- · Overall assessment of the candidate's performance

3.1.2 Doctoral research project proposal

Right at the start of the doctoral phase, candidates need to develop a preliminary proposal of their three year doctoral research project. The proposal should be presented to and approved by the TAC members at the first meeting (within the **first five months** of the doctoral phase). The proposal needs to convince TAC members of the research idea(s)/question(s) and the methodological approach.

The project proposal (10 pages) should include:

- Background: Provide a brief overview of the general area of study within the research topic. Critically address relevant studies and identify potential gaps that need to be filled in.
- Research questions & hypothesis: Which questions guide the research? Why are they relevant, and how will they fill in some of the existent gaps?
- Methodology: Describe how the project will be executed: the methodology and the analysis to accomplish its
 goals. Discuss potential problems and how to overcome them.
- Tentative timeline: Present a schedule to complete the doctoral research work within three years. Important milestones need to be added to the timeline.
- Bibliography: Must include all publications that are mentioned throughout the proposal.

Please note: Candidates should discuss the expectations related to the *project proposal* and the workload involved in its preparation directly with their supervisor right at the start of the doctoral phase.

MPSCog Project Proposal instructions on how to write a project proposal are available on OpenCampus/Year 1. They are generic, thus must be adjusted to the nature of the specific research project and to the expectations of the supervisor.

Candidates need to submit a complete and fully signed first TAC form together with the *project proposal* to OpenCampus/Year 2 within **one week after** the meeting (Figure 8).

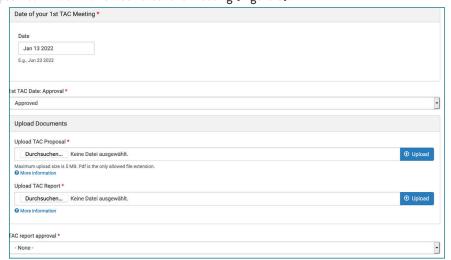


Figure 8. OpenCampus: First TAC meeting documentation in the Year 2 progress tree.

As soon as the date of the first TAC is approved by the coordination team, the TAC feedback form as well as the *Project Proposal* can be uploaded.

3.1.3 Satisfaction questionnaires - Voluntary reporting throughout the doctoral phase

MPSCog coordination team regularly monitors the supervision of the projects and the wellbeing of the doctoral candidates. As the program is still in its pilot phase, the modification of certain aspects to achieve better results is possible. Therefore, all candidates in the doctoral phase are strongly encouraged to share feedback about the overall satisfaction. The questionnaire is organized into seven sub-categories such as time frame and workload, supervision and networking, coordination team, among others (Figure 9).



Figure 9. OpenCampus: Satisfaction questionnaire in the doctoral phase.

Satisfaction questionnaires are made available within OpenCampus throughout the doctoral phase. They are listed within the progress trees of Year 2, Year 3 and Year 4 of the program (Figure 10). They are voluntary, confidential (can be viewed only by Natacha Mendes), and can be submitted throughout the respective year of the doctoral phase.



Figure 10. OpenCampus: Satisfaction questionnaire in Year 2 progress tree.

3.1.4 Enrollment as a doctoral candidate

In Germany, doctoral degrees are exclusively awarded by the universities and not by non-university research institutions (such as Max Planck Institutes).

At the start of the doctoral phase, it is necessary to enroll as a doctoral candidate at the university, where the main supervisor of the doctoral project holds a professorship. If this is not Universität Leipzig, please inform coordination team to de-register your preliminary enrollment as doctoral candidate with Universität Leipzig (during the orientation phase).

In order to be accepted for the doctoral defense in Germany, candidates need to fulfill specific requirements (e.g. number of publications, format of doctoral thesis, number of ECTS credits for conferences, journal clubs etc.) of the *Promotionsordnung* (doctoral degree regulations) of the respective faculty/university. These requirements may differ from university to university and can also be subjected to change over time.

Thus, candidates must familiarize themselves with the *Promotionsordnung* of the respective university/ faculty at the start of the doctoral phase, to avoid unforeseen problems when submitting their thesis.

As an example, the doctoral degree regulation of Universität Leipzig below:

- Faculty of Life Sciences (pdfs in German and English)
- Faculty of Medicine (pdf in German only)

Some MPSCog fellows are affiliated with more than one university. In such cases, the candidates should seek advice directly from their supervisor (and other lab members) on what is the most appropriate choice of faculty for them.

3.1.5 Credit points — Admission to doctorate

Please note: In Germany, universities grant a variety of doctoral degrees, such as Dr. rer. nat., Dr. med., PhD candidates need to select the most suitable available degree, depending mainly on the nature of the doctoral project and their further career plans. Usually, the main supervisor and also other lab members are the best source of advice.

Please note: It may be relevant to consult with the local administration (*Promotionsbüro*) about specific requirements for credit points (so-called ECTS points, European Credit Transfer System).

Some doctoral candidates (who have achieved a master's degree via a one-year program in the UK for example) may not have reached the expected credit points for a German university's doctoral defense admittance yet. In such cases, it may be necessary to substitute missing credit points during the doctoral phase by attending certified classes before the actual doctoral defense can be planned.

3.1.6 Publications, attendance at conferences and external events

During the doctoral phase, the candidate's supervisor is responsible for financing (once agreed to) the attendance at all external scientific events (professional conferences/courses/workshops), and will cover the travel costs for participation in Cognition Academies. Therefore, attendance at those events needs to be discussed with and approved by the doctoral supervisor(s) beforehand.

Candidates should add the information about the publications and presentations at the conferences to OpenCampus.

Please note: MPSCog affiliation must be added to all the publications and presentations throughout the doctoral phase alongside with the affiliation of the institution at which the candidate is based.

MPSCog candidates who are registered on the doctoral list of Universität Leipzig and conduct their doctoral thesis there, become full members of the Research Academy Leipzig.

3.1.7 Research Academy Leipzig (RALeipzig; applicable only for candidates on the doctoral lists at Universität Leipzig)

RALeipzig is the central service institution at Universität Leipzig that is dedicated to actively supporting early career researchers. Members can, among other things, participate in workshops of the <u>Competence School</u> to strengthen their skill sets. Doctoral candidates at the MPSCog are not eligible to request travel funding from RALeipzig, but can apply for the yearly RAL <u>doctoral prize</u>.

3.2 Second to third year of the doctoral phase (third and fourth year of the doctoral program)

Candidates continue working on their research projects and are expected to present their progress to their supervisors and TAC members. It is at the candidate's initiative to schedule and organize their subsequente TAC meetings.

We strongly encourage all candidates to share their feedback also via filling out the satisfaction questionnaires on a yearly basis. The candidates' responses to the questionnaires are handled confidentially. Figure 11 presents the overview of the expected reporting during the doctoral phase.

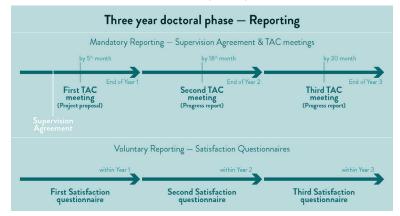


Figure 11. Timeline of reporting during the doctoral phase.

3.2.1 TAC meetings progress report

As aforementioned (see Figure 11), doctoral candidates are expected to have a TAC meeting progress report in the second and third year of the doctoral research phase (i.e., within 18 months and 30 months from the start of the doctoral research phase).

The purposes of the second and third TAC meeting during the doctoral research phase are:

- Updating the TAC members on the candidates' progress with the research project(s), the timeline, the status of publications, etc.
- · Advising candidates on how to proceed towards a successful and timely submission of the thesis, and
- Checking on candidates' career development plans.

Candidates need to write a short progress report and submit it to the TAC members at least **one week before** the scheduled TAC meeting. The progress report should have a maximum of **five pages** in the following structure:

- Short scientific background
- Provide a concise overview of the general area of study within the research domain. Critically address relevant studies and identify potential gaps that need to be filled in.
- The previously written 'Scientific Background' section of the *Project Proposal* (first TAC) can serve as the basis for the updated report.
- Research questions & hypothesis
 - Which modifications in terms of research questions have been made (with regard to the project proposal)?
- Methodology
 - Which modifications in terms of the planned methodology and data analysis have been made (with regards to the *project proposal*)? Discussion on encountered problems and how they were (or not) overcome.
- First results & discussion
 - Description of project findings and concise discussion.
- Timeline
 - Which modifications in terms of the planned timeline have been made (with regards to the *Project Proposal*)? Present an updated schedule to complete the doctoral research work within the three years including important milestones within the timeline.
- Bibliography
 - Must include all publications that are mentioned throughout the proposal.

Candidates give a short presentation (10 – 20 minutes) of the research project, followed by a discussion with the TAC members. The TAC assesses the following criteria, which the chairperson will record on the TAC assessment form:

- Status of the project
- Progress made
- Detailed timeline until the next TAC meeting (only for candidates having the second TAC)
- Tentative date for submission of the doctoral thesis (only for candidates having the third TAC)

The procedure of the second and third TAC meeting is similar to the first one.

Candidates must submit the second and third TAC reports (partially filled out) and their Progress Report **one** week before the scheduled **TAC** meeting to the TAC members.

Candidates are responsible to submit the fully signed forms and progress report to OpenCampus within a week after the meeting.

3.2.2 Grading of the doctoral thesis

The final grade of the doctoral degree by the respective university consists of three sub-scores. Two scores relate to the written thesis itself and are reflected by the grades received from the two reviewers. The other score relates to the thesis defense (the so-called *Disputation*) and reflects the overall oral presentation and discussion performance of the candidate. The final grade will be the average of all three scores (see below). In order to obtain an excellent overall grade, one needs to receive three excellent sub-scores. In Germany, one can receive the following grades for a doctorate:

summa cum laude with distinction magna cum laude very good

cum laude good rite passed insufficienter failed

Please note: To pursue a *Habilitation* in Germany, the candidate needs to hold a doctoral degree from a German university with a minimum score of magna cum laude.

3.3 Administrative topics

At the beginning of the doctoral research phase, some administrative steps need to be taken as shown in Figure 12.

3.3.1 Administrative steps If applicable: (De)Register In case you need to move to start your doctoral studies at the institution of your supervisor, please deregister from your current city and register at Bürgerbüro with the city where you will conduct your doctoral studies. If applicable: In case your address changes, please do not forget to provide your Inform about new address to our International Officer Nicole Lorenz, and also to new address your bank and the health insurance provider. If applicable: The doctoral contract enables you to become a member in a statutory witch to statutory health insurance company. In case you were under private cover so far, health insurance please change your insurance provider. Our International Officer Nicole Lorenz or someone from your doctoral research institution can support you. If applicable: Please inform the foreigners' authority about moving on to the Contact foreigners doctoral phase by sending them your doctoral contract and also authority provide your new address. They will issue a new residence permit.

Candidates should always contact the coordination team if support is needed with any of the necessary steps mentioned above.

Figure 12. Administrative steps at the beginning of the doctoral phase.

3.3.2 Salary

During the doctoral phase (second to fourth year of the MPSCog program), candidates receive a contract which is made with the institution where the doctoral research work is conducted.

The monthly net salary depends on a few factors, for example in which federal German state the doctoral study is conducted, or whether candidates are married or have children.

3.3.3 Travel requests and refunds

From the beginning of the doctoral phase, any business trip (including Cognition Academies) has to be requested at the institution where the doctoral contract is based.

Refunds will be fully covered by the candidate's doctoral supervisor. However, during the Academies, the cover of costs is slightly different:

- Travel costs and, if applicable, daily allowance will be covered by the institution where the doctoral contract is based.
- Meals and accommodation during the event will be covered by the MPSCog.

4. Scientific Guidelines

4.1 Disclaimer

OpenCampus (or Life Cycle = Years 2-4)

Information for new data processing within Max Planck School of Cognition_Life Cycle — Curriculum Management Database

Purpose and legal basis of the processing

The data collected on the application site of the Max Planck Schools, upon the submission of your application, will be imported from GWDG GmbH (Application portal) to the Curriculum Management Database of OpenCampus (hereafter referred to as "Life Cycle"). Moreover, all data collected during the orientation and doctoral phase including your academic performance will be collected and stored at Life Cycle. The purpose is to efficiently facilitate the management of your doctoral education by all involved parties (MPSCog coordination team, doctoral candidates, fellows, e-tutors, employees of MPS as well as the Equal Opportunities Officer and the Works Council) throughout every phase of the orientation and doctoral phase, and to make the data easily accessible for you.

Which involved party has an access to the data and to what extent is stipulated in an access and authorization concept. Appropriate technical measures have been taken. This ensures that persons only have access to data to which they absolutely must have access in order to fulfill the above-mentioned purposes.

Legal basis for data processing

The legal basis for data processing is Art. 6, para. 1, letter f (legitimate interest) of the General Data Protection Regulation (GDPR).

Data recipients and categories of data

Processing of your personal details and data is carried out by processing on systems of OpenCampusGmbH. A passing on of data to third parties does not take place.

Duration of storage

Your data will be stored for a period of 5 years.

Contact details of the controller

Controller in the legal sense is the Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. (MPG), Hofgartenstraße 8, D-80539 Munich, Germany, Phone: +49 (89) 2108-0.

Furthermore, you can always contact hanna.kriebel@gv.mpg.de (link sends e-mail) if you have any questions.

Contact details of Data Protection Officer

The Data Protection Officer of the controller is Heidi Schuster, Hofgartenstraße 8, 80539 Munich, telephone: +49 (89) 2108-1554, email address: datenschutz@mpg.de.

Rights of the data subject

In principle, you have the right to information in relation to the data concerning you, the right to have the data corrected should it be incorrect, and the right to request deletion of the data if it is being stored unlawfully, as well as the right to have the processing restricted and the right of data portability. You have the right to object to the data processing and to appeal to the supervisory authority. For the MPG, this is the Bavarian State Office for Data Protection Supervision (Bayerisches Landesamt für Datenschutzaufsicht), Postfach 606, 91511 Ansbach.

• Satisfaction questionnaire

This is a confidential questionnaire regarding the satisfaction with your doctoral project and supervision. The questionnaire is to be submitted 12 months after the start of the doctoral project, and every 12 months afterwards until the end of the doctoral project (months 24 and 36). There will be space at the end of the questionnaire for further comments. By completing this survey, you accept that the Scientific Coordinator and the E-learning Officer will have access to the survey results.

The term Data Protection stands for the protection of individual personality rights. Every person should have the possibility to decide for themselves what happens to their data. According to the Federal Constitutional Court, the right to informational self-determination is a constituent of general personality rights. The

fundamentals are governed by the EU General Data Protection Regulation and the Federal Data Protection Act (Bundesdatenschutzgesetz – BDSG); there are also special legal regulations.

Open Learning Managment System

The Cognition Academy surveys are anonymous.

4.2 Ethics

Each study needs to be approved beforehand by an ethics council. Please consult your supervisor for more information.

4.3 Good scientific practice

Doctoral candidates are obliged to adhere to the recommendations for safeguarding good scientific practice as set out by:

- Max Planck Society
- <u>Deutsche Forschungsgemeinschaft</u> (German Research Foundation, DFG)
- Rules of the institution where any project is based and/or where registration as a doctoral candidate has
 occurred

Please make sure to familiarize yourself with all sets of rules.

4.4 Equal opportunities officers and Ombudsperson

Should any situations of conflicts, problematic issues or concerns occur during the doctoral phase, the candidates are encouraged to seek assistance and advice from equal opportunities officers and ombudsperson.

Equal opportunities officers. The Max Planck Society and each of its institutes support and promote employees regardless of gender, nationality, religion, disability, age, cultural origin, or sexual identity. Whenever needed, doctoral candidates should seek out the local contact for the equal opportunities officers at their respective host institutions.

Ombudsperson. Scientific integrity is one of the most highly valued assets in science. This includes an open debate about what constitutes good scientific practice and according to which rules scientific activity is pursued. Generally speaking, the role of an ombudsperson does not concern severe violations in the sense of potential scientific fraud but rather conflicts that arise from scientific practice. Most of the discussions held by ombudspersons concern issues of authorship, i.e. questions relating to the fair acknowledgment of scientific contributions to a certain publication on the part of individuals.

Person of Trust. MPSCog candidates may contact Prof. Dr. Annette Beck-Sickinger, MPSCog's Person of Trust, for confidential advice if conflict situations or questions about good scientific practice arise. In addition, candidates can seek out the contact of the ombudsperson(s) at their respective host institutions.