Call for Proposals

No. 38   **6 July 2020**

Priority Programme "META-REP: A Meta-scientific Programme to Analyse and Optimise Replicability in the Behavioural, Social, and Cognitive Sciences" (SPP 2317)

In 2020, the Senate of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) has established a new Priority Programme entitled "META-REP: A Meta-scientific Programme to Analyse and Optimise Replicability in the Behavioural, Social, and Cognitive Sciences" (SPP 2317). The programme is designed to run for six years. The present call invites proposals for the first three-year funding period (2021–2024).

Aims and Scope of the Programme
The behavioural, social, and cognitive sciences are in the midst of an intensive debate about the replicability of their empirical findings. Shaken by the results of many replication projects that have been conducted in recent years, scholars have begun discussing what replicability actually means and when a replication can be regarded as successful vs. failed, whether low replication rates are caused by too many false positive findings in the literature, methodological weaknesses in the replication studies, measurement issues, and/or the underappreciated influence of contextual effects, and what can be done to effectively and sustainably secure a high level of replicability in the behavioural, social, and cognitive sciences.

The Priority Programme aims to contribute significantly to this debate by
- describing and defining "replication" (including "successful" vs. "failed" replications) across different scientific disciplines (the "what" question),
- explaining why replication rates vary across and within different disciplines (the "why" question), and
- evaluating measures that have been proposed and implemented to increase replication rates (the "how" question).

Contributions by Individual Projects
Regarding the "what" question, individual projects funded by the programme may contribute to achieving these goals by (for instance)
- developing, evaluating, comparing, and refining conceptual, methodological and statistical approaches to estimate reproducibility, robustness, "direct" replicability, and generalisability, respectively, and assess their applicability in their respective scientific discipline; and/or by
- providing a systematic picture of the reproducibility, the robustness, the "direct" replicability, and the generalisability of behavioural, social, and cognitive science findings, while

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taking a more heterogeneous and representative range of effects and methods – as well as discipline-specific historic and political backgrounds – into account.

Regarding the "why" question, projects may contribute to achieving the programme goals by (for instance)

- systematically documenting and comparing research practices, incentive systems, journal policies, and (implicit and explicit) normative expectations (e.g., publication pressure) in the behavioural, social, and cognitive sciences and their respective impact on replication rates;
- re-analysing data from existing replication projects and meta-analyses (i.e., meta-meta-analysis) with regard to individual- and system-level factors that produce biases in original and/or replication research (e.g., investigating publication bias in publication bias research) as well as the effects of manipulation heterogeneity, measurement invariance, and sample characteristics on the heterogeneity/non-replicability of effects in their respective scientific discipline; and/or
- evaluating the impact of questionable research practices, underspecified theories, design characteristics, and/or invalid measurement models ("pseudo-measurements") on replication rates in their respective scientific discipline using new and/or simulated data.

Regarding the "how" question, projects may contribute to achieving the programme goals by (for instance)

- developing different measures, strategies, and tools and evaluating them with regard to their plausibility, validity, acceptability, feasibility, and their positive (and potentially negative/undesired) effects; and/or
- assessing and evaluating instruments to monitor changes in norms, incentive structures, and scientific practices in their respective scientific discipline (e.g., quality assurance measures in scientific journals, funding agencies, and scientific organisations).

Expectations and Requirements for Individual Projects

In the first funding phase, we expect projects to focus more on the "what" question (describing and defining replication) and the "why" question (explaining replication), because a common definition of (non)replicability and a comprehensive understanding of its causes help develop appropriate measures to improve the status quo. Nevertheless, projects focusing on the "how" question may also be submitted in the first funding phase.

Participating projects will have to adopt a meta-scientific focus on the (non)replicability of findings in the behavioural, social, and cognitive sciences. More specifically, proposals need to explain in detail (a) which of the three questions mentioned above (i.e., what, why, how) will be addressed by the planned project; (b) how the suggested approach is suited to tackle the respective question(s); and (c) what the expected contribution to the overall programme goals may eventually be.

Although replicability is an issue in many different scientific disciplines, the programme will focus on replicability in a selected subset of empirical sciences (i.e., the behavioural, social, and cognitive sciences), including psychology, cognitive neuroscience, psycholinguistics, sociology, behavioural economics, and communication science. Contributions from neighbouring disciplines, such as philosophy of science, history of science, scientometrics, or the life sciences are welcome if they

explicitly adopt a meta-scientific perspective on replicability in the behavioural/social/cognitive sciences.

Collaboration and Infrastructure

Mutual cooperation and exchange between individual projects in this Priority Programme will be ensured by a collaborative groupware environment, which will be developed and operated by the Leibniz Institute for Psychology Information (ZPID). In addition, the coordinators of the Priority Programme will provide the necessary infrastructure to set up and maintain distributed research initiatives (e.g., "ManyLabs"), adversarial collaborations, cumulative theory-building, and data sharing/data pooling. Applicants are encouraged to explicitly address opportunities for collaboration: project proposals should specify which of the aforementioned forms of collaboration is feasible for them, and how such a collaboration could look like.

In addition, regular meetings, retreats, programme-specific workshops, and international conferences organised by the coordinators of the Priority Programme are envisaged. To particularly support young investigators (e.g., doctoral students / post-doctoral researchers), the Priority Programme intends to offer special funding opportunities for small-scale collaborative research projects, a cross-location supervision network, funding for external mentorship, start-up stipends for excellent young researchers and specific workshops on career development inside and outside academia. The programme will also implement a gender equality programme and a family-friendly policy.

Formal Requirements and Proposal Submission

Proposals must be written in English and follow the guidelines in DFG form 54.01en (Proposal Preparation Instructions). DFG-specific rules regarding publication lists must be observed (form 1.91en). Further information (e.g., on eligibility requirements) can be found in DFG form 50.05en, part B.

Proposals must be submitted via the DFG's electronic proposal submission system "elan" by **2 December 2020.** Applicants should select "Schwerpunktprogramm" and "SPP 2317/1 META-REP" when submitting their proposal.

Applicants must be registered in elan prior to submitting a proposal to the DFG. Applicants who are not yet registered must do so by **18 November 2020** to submit a proposal under this call; registration requests received after this time cannot be considered. Successful registration will be automatically confirmed, usually by the next working day. Note that the appropriate Priority Programme call has to be selected both during the registration and the proposal submission process.

Preparatory Meeting

Scholars interested in submitting a project proposal are invited to a preparatory meeting organised and hosted by the programme committee on **28 September 2020, between 14.00 and 17.00 (UTC+2).** Given the current travel restrictions, this will be an online meeting using a video conferencing device (more information will follow). Scholars who are interested in joining this meeting are requested to register by **11 September 2020** online via https://bit.ly/3g1kYdo.

Please note that participating in this meeting is not mandatory; project proposals can be submitted without participating in the preparatory meeting.

Further Information

More information about the Priority Programme can be found here:
https://leibniz-psychology.org/metarep

The proposal to establish this Priority Programme can be downloaded here:
www.psycharchives.org/handle/20.500.12034/2629

Registration for the preparatory meeting can be done here:
https://bit.ly/3g1kYdo

The elan system can be accessed at:
https://elan.dfg.de

DFG forms 50.05 and 54.01 can be downloaded at:
www.dfg.de/formulare/50_05
www.dfg.de/formulare/54_01

For scientific enquiries please contact the Priority Programme's coordinator:
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