



Zentralinstitut
für Seelische
Gesundheit

One Standard or Many? Good Scientific Practice Across Disciplines

Potsdam, 10.07.2026

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UTN

Technische Universität Nürnberg

Short introduction



Gordon Feld

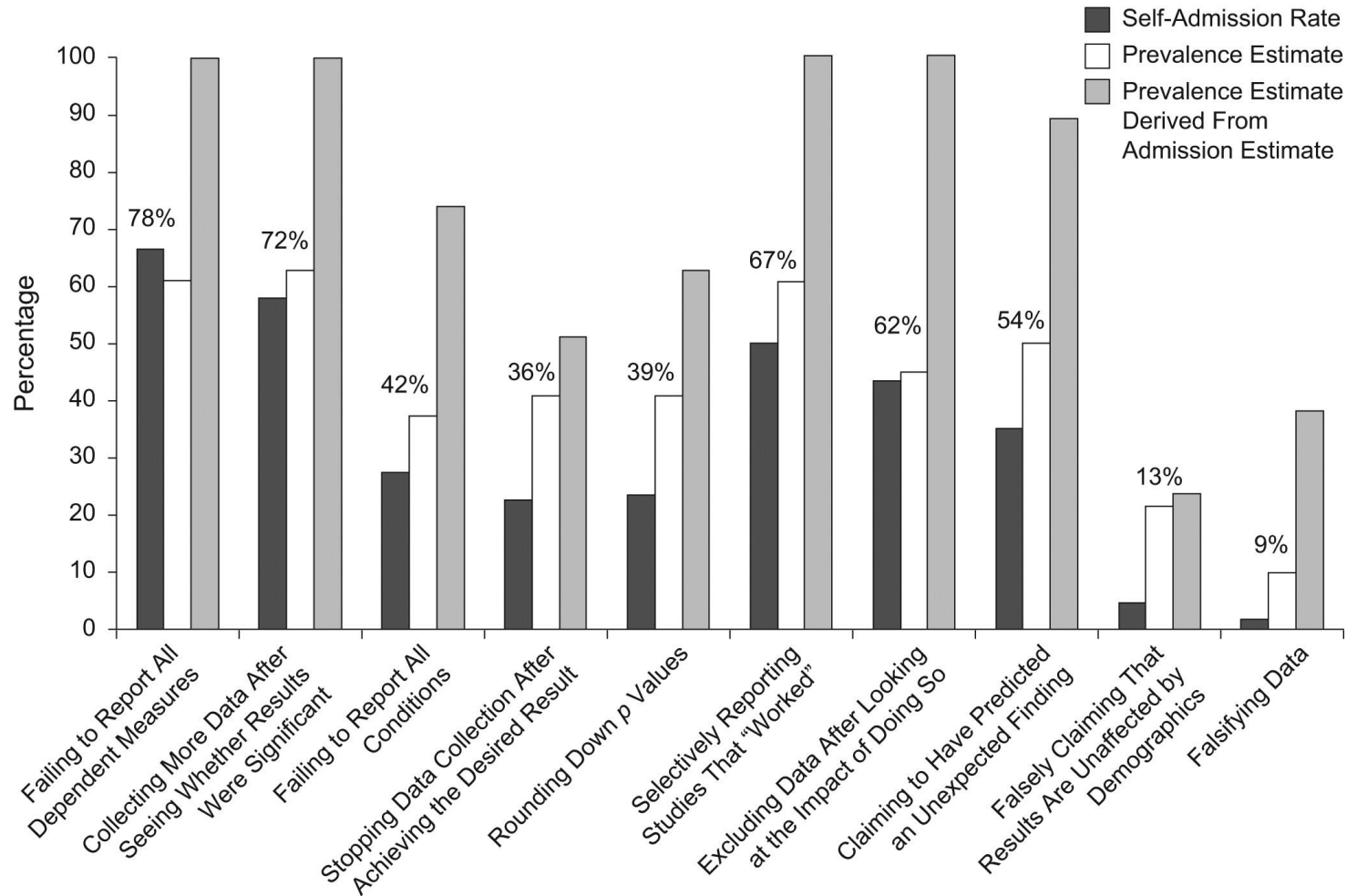
Psychologist and Neuroscientist
Emmy since 2019
ERC Consolidator Grant 2025
Open Science Enthusiast
Engaged in Science Reform



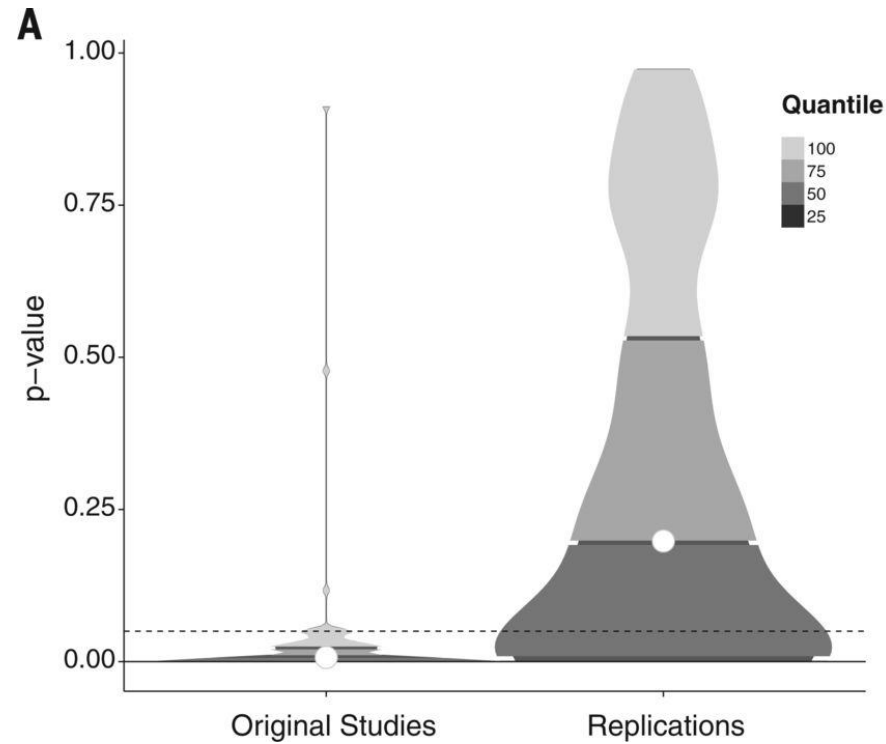
Michael Roth

Computational Linguist
Emmy from 2019 to 2025
Ombudsperson (& Lecturer)
for Good Scientific Practice

Good Scientific Practice in Psychology



Low replication rates in psychology, known for >10 years

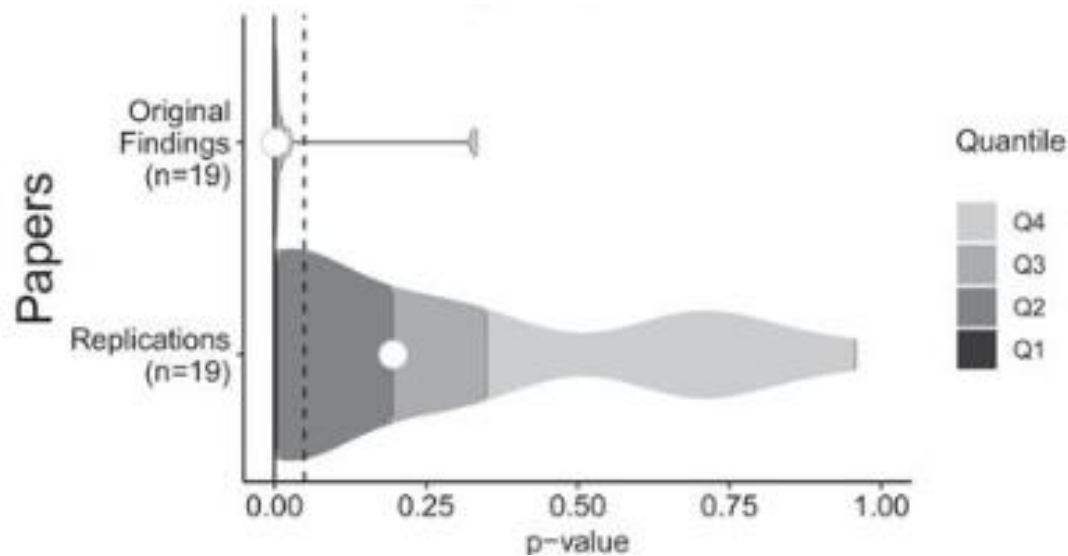


Open Science Collaboration (2015, *Science*)

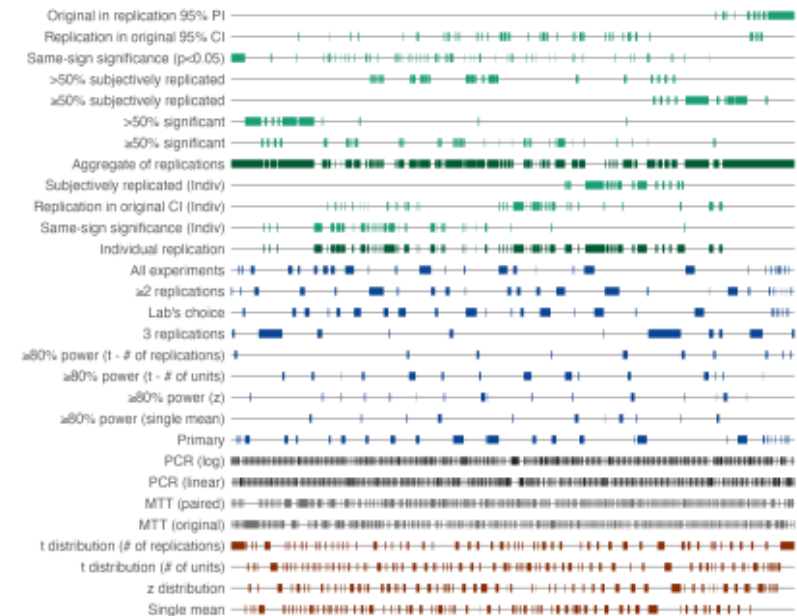
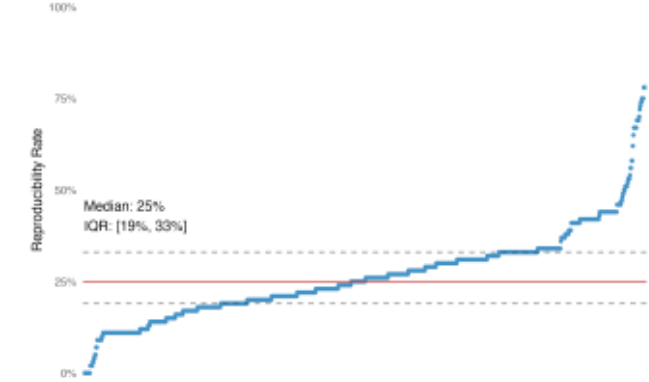
The problem is bigger than psychology...



Cancer biology



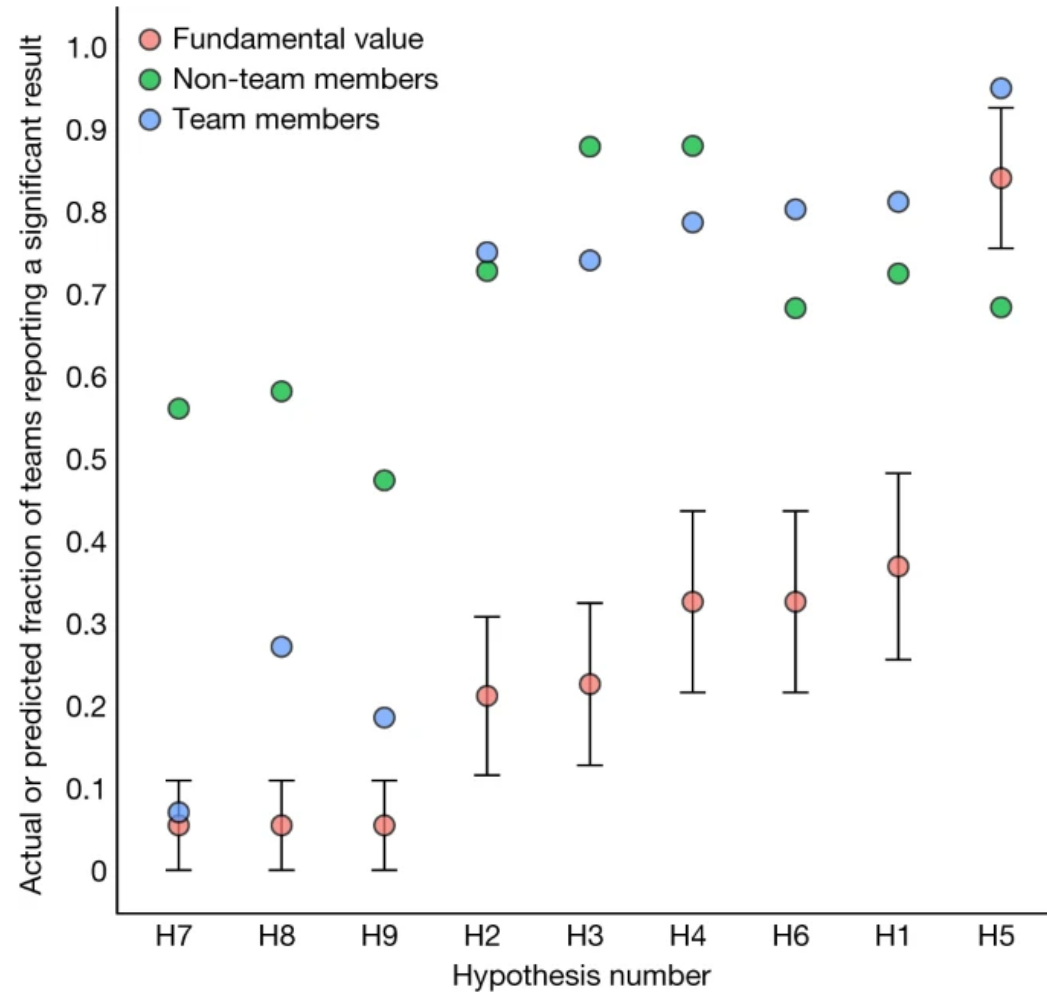
Errington et al. (2021, *eLife*)



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Analytical flexibility in neuroscience

Fig. 1: Fraction of teams reporting a significant result and prediction market beliefs.

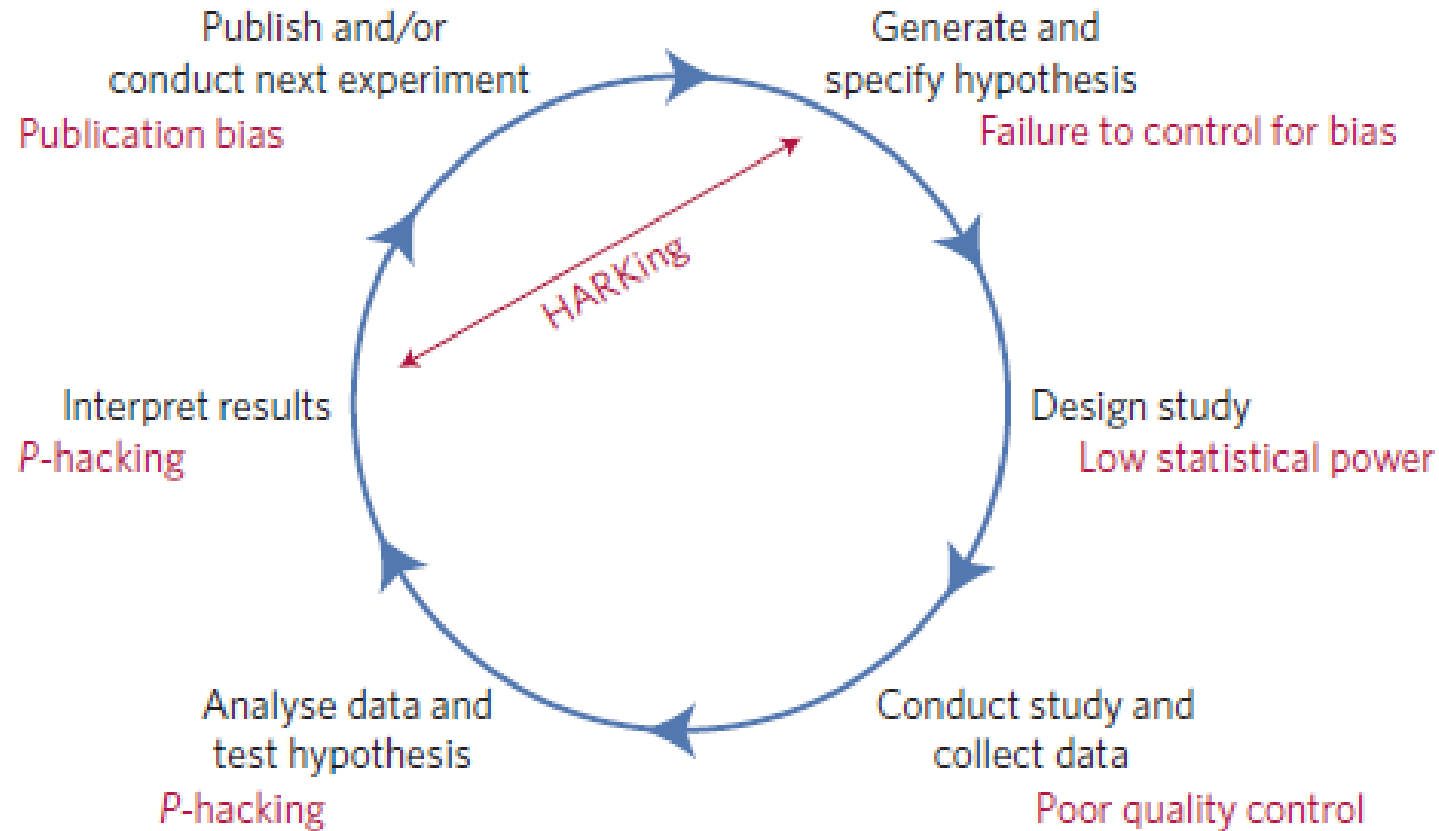




Richard Feynmann

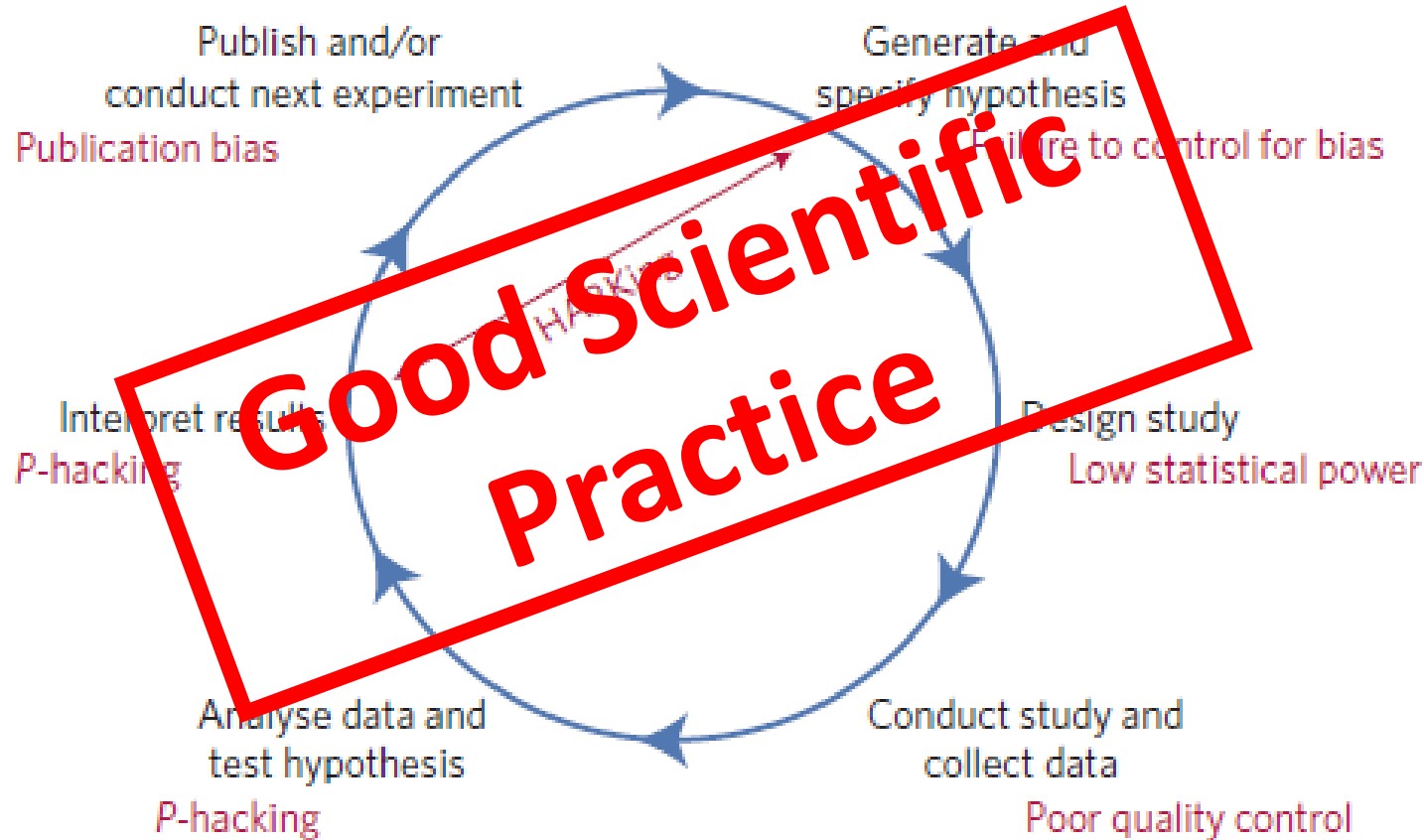
**“The first principle is that you must not fool yourself
— and you are the easiest person to fool.”**

Why is repeatability poor?



(Munafo, 2017 *Nature Human Behaviour*)

Why is repeatability poor?



(Munafo, 2017 *Nature Human Behaviour*)

What is Good Scientific Practice in ... ?



Gute Wissenschaftliche Praxis
=
Good **Scientific** Pactice or Good **Research** Practice

A short survey





Code of Conduct

13.07.2026

Guidelines for Safeguarding Good Research Practice

Principles

1. Commitment to the general principles
2. Professional ethics
3. Organisational responsibility of heads of research institutions
4. Responsibility of the heads of research work units
5. Dimensions of performance and assessment criteria
6. Ombudspersons
11. Methods and standards
12. Documentation
13. Providing public access to research results
14. Authorship
15. Publication medium
16. Confidentiality and neutrality of review processes and discussions
17. Archiving

Research Process

7. Cross-phase quality assurance
8. Stakeholders, responsibilities and roles
9. Research design
10. Legal and ethical frameworks, usage rights

Non-Compliance with Good Research Practice, Procedures

18. Complainants and respondents
19. Procedures in cases of alleged research misconduct

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Non-Compliance with Good Research Practice, Procedures

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Three blocks for Good Research Practice in an Emmy Noether Group

Leadership and research culture

1. Responsibility of the heads of research work units
2. Dimensions of performance and assessment criteria
3. Stakeholders, responsibilities and roles

Quality, transparency, and openness

1. Cross-phase quality assurance
2. Documentation
3. Providing public access to research results

Fairness, credit, and responsibility

1. Legal and ethical frameworks, usage rights
2. Authorship
3. Confidentiality and neutrality of review processes and discussions

In small groups, please collect for each block, what you think is relevant in your discipline(s) for each block.



Case 1



Your Emmy Noether group has become very successful. Several papers are under review, a major grant deadline is approaching, and your group is increasingly visible in the field. From the outside, everything looks excellent.

Internally, however, the culture has become tense. PhD students feel that only positive results and fast progress are valued. Lab meetings have become performative: people present polished stories rather than unresolved problems. One postdoc has started working very long hours and junior members seem to imitate this. A PhD student tells you privately that they are afraid to show negative results because they worry this will make them look “unproductive”.

You realise that no one is explicitly doing anything wrong. There is no obvious misconduct. But the group culture may be drifting toward incentives that undermine good research practice.

1. What would you consider standard practice in your field?
2. What would an ideal group leader do?
3. What do you do?

Case 2



A PhD student in your group has found an exciting result. It fits the theory well and would make a strong paper. However, the project history is messy.

The original analysis plan changed several times. Some exclusion criteria were decided after looking at the data. Several alternative models were tested, but only the best-fitting one appears in the current draft. The student has kept notes, but they are distributed across emails, scripts, old folders, and personal files. The result seems real, but it is not clear how robust it is. The student is worried that being fully transparent will make the paper look weak and delay publication.

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Case 3



A collaborative paper is nearly ready for submission. A postdoc in your group developed the original idea and wrote the first project outline. A PhD student then collected most of the data, solved several practical problems, performed the final analyses, and wrote large parts of the manuscript. A collaborator from another institution provided access to a crucial validation dataset and expects co-authorship. You, as group leader, supervised the project closely and helped shape the interpretation.

Only now, shortly before submission, does the question of author order become explicit. The postdoc and PhD student both feel they deserve first authorship. The collaborator insists that their contribution was essential. The PhD student is worried that disagreeing openly could damage their career. Everyone agrees the paper should be submitted soon, but the atmosphere has become tense.

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2. What would an ideal group leader do?
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The German Reproducibility Network



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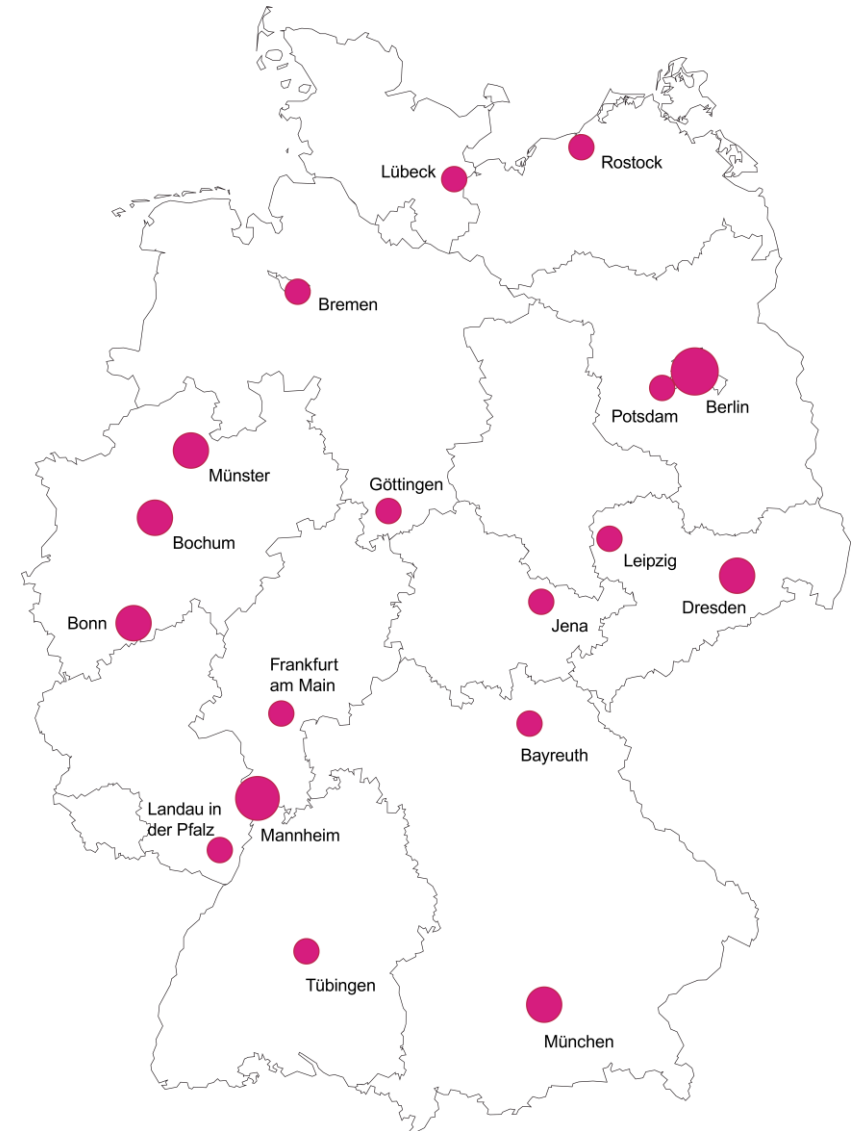
@GermanRepro



info@reproducibilitynetwork.de



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Additional Thoughts as an Ombudsperson

- Good research practice is of particular importance in Germany
 - History of fraud: google ‘Schön scandal’, ‘Herrmann & Brach’, ‘zu Guttenberg’, ...
 - Yet, freedom of research is constitutionally guaranteed (GG Art 5(3))
 - Boundaries and checks necessary
- Code of conduct is not just a set of DFG-internal guidelines
 - Legally binding implementation necessary to receive funding
 - Ombudsperson at each institution, plus nationwide ombuds committee
 - [Some personal experience 😊]



Thank you for your
attention!