1st Oldenburg
Open Science Conference 2025

Building Your Career on Solid Ground: The Power of Repetitive Research for ECRs

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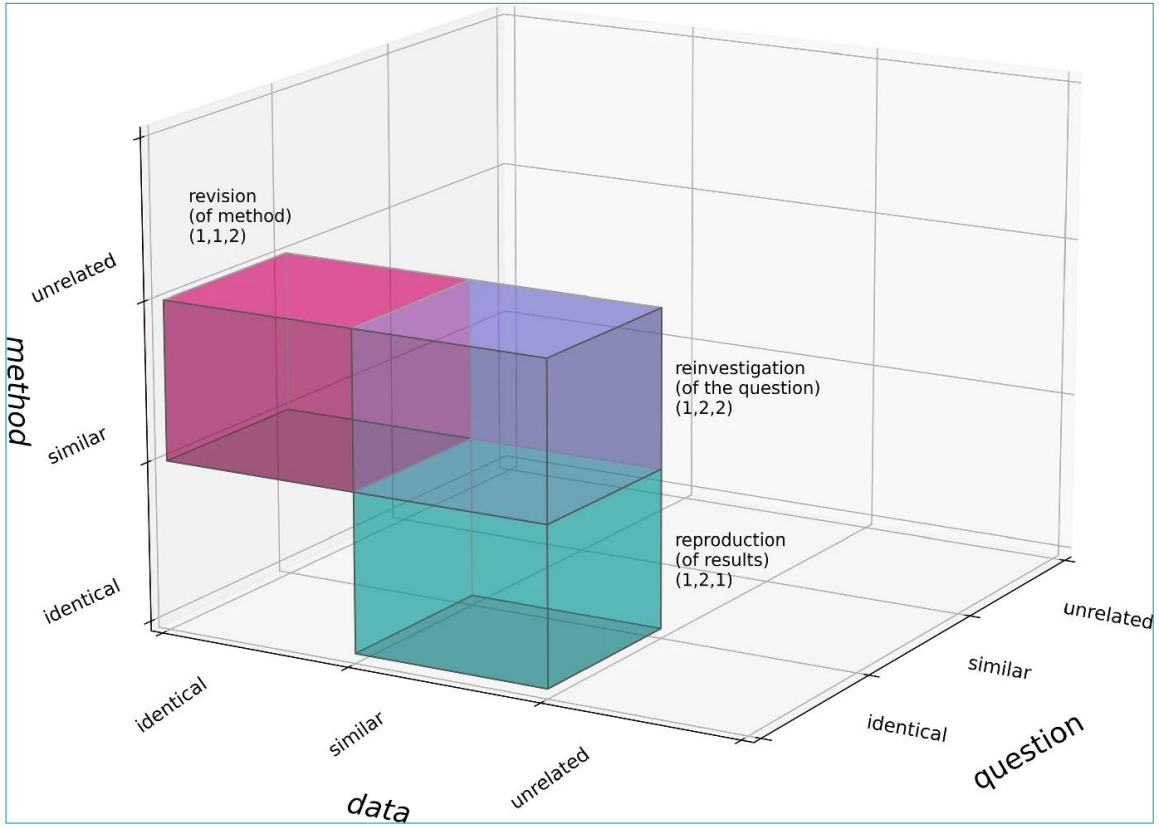
Slides: osf.io/u7f2e

Repetitive Research Terminology

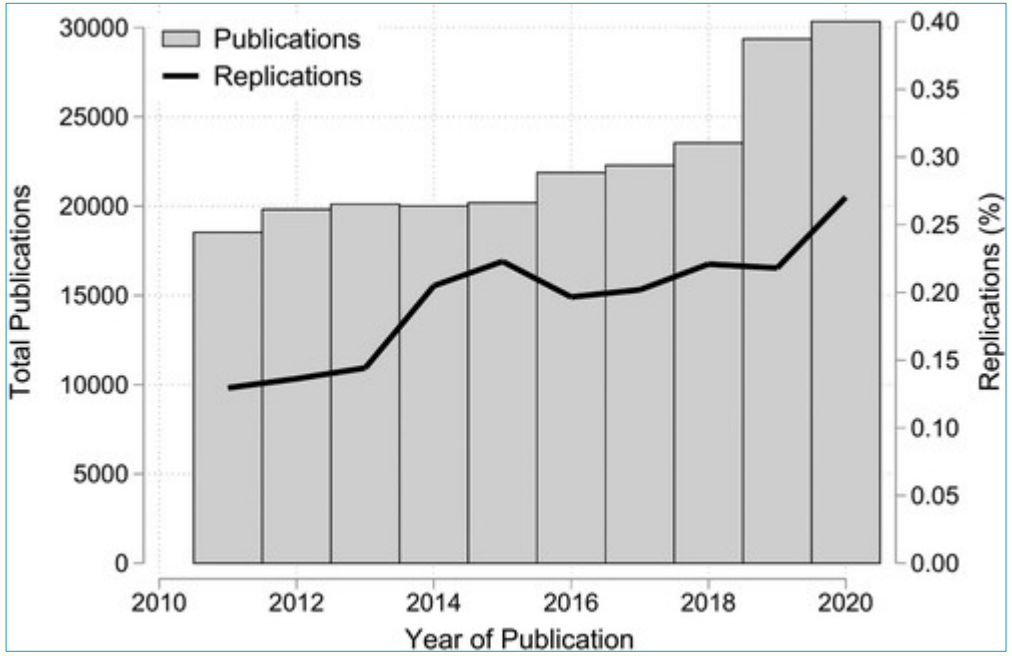
- General term → Repetition
- Same data → Reproduction
- Different data → Replication



Schöch, 2023

Replications across disciplines

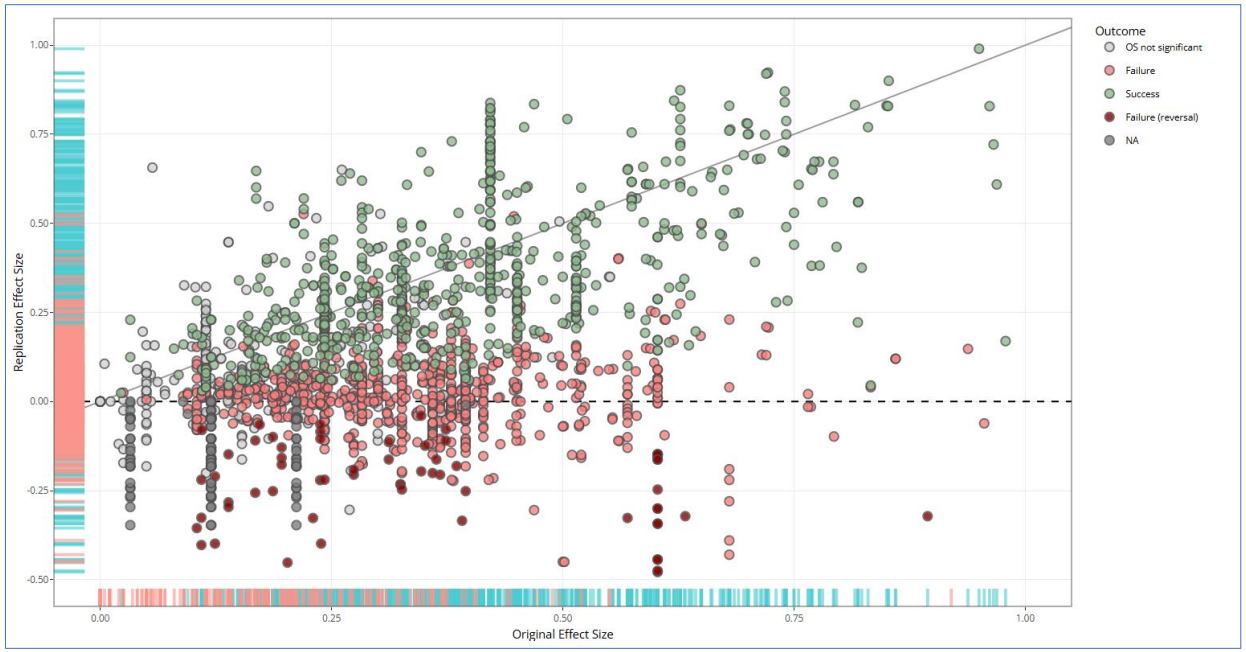
Replication rates between 0 and 1% depending on discipline (e.g., Makel et al., 2012) and rising (e.g., Perry et al., 2022)



Why Replications?

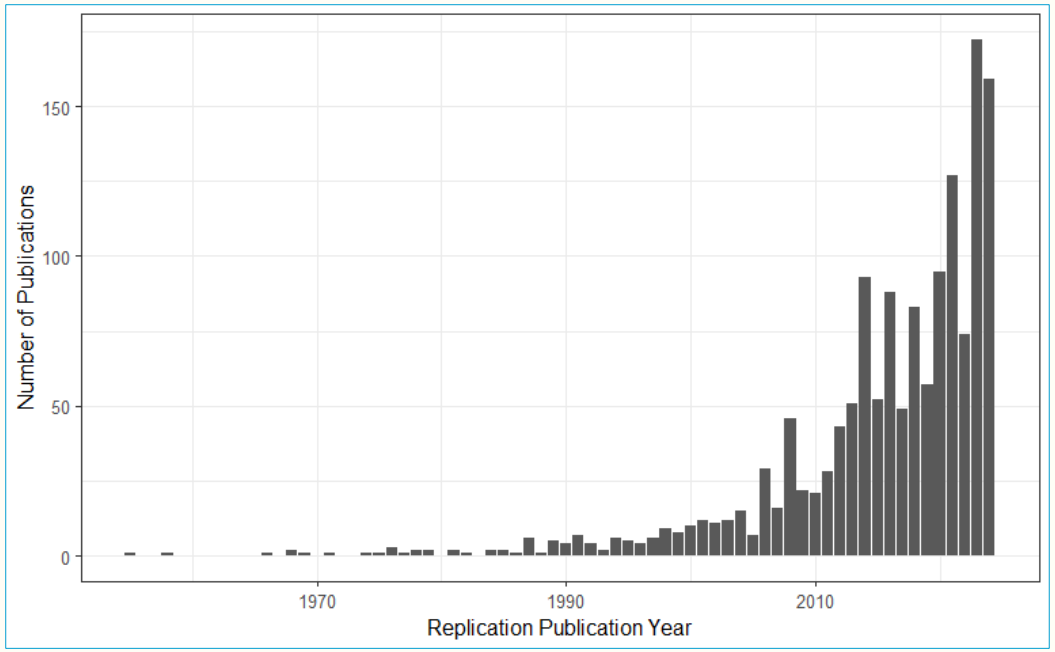
- Some finding are not robust
- We build on previous findings

→ **We should test if previous findings are robust, first.**



https://forrt-replications.shinyapps.io/fred_explorer/

Increasing demands to publish replications



Why Replications?

For Science

- “And what we find today we shall strike out from the record tomorrow, and only write it in again when we have once more discovered it.” (Brecht, Life of Galileo, 1943)
- Contribute to a healthy culture of **organized scepticism** (Merton, 1973/1942)
- Science is systematic (Hoyningen-Huene, 2013)
  - Defense of knowledge claims
  - Critical discourse
  - Epistemic connectedness

For ECRs

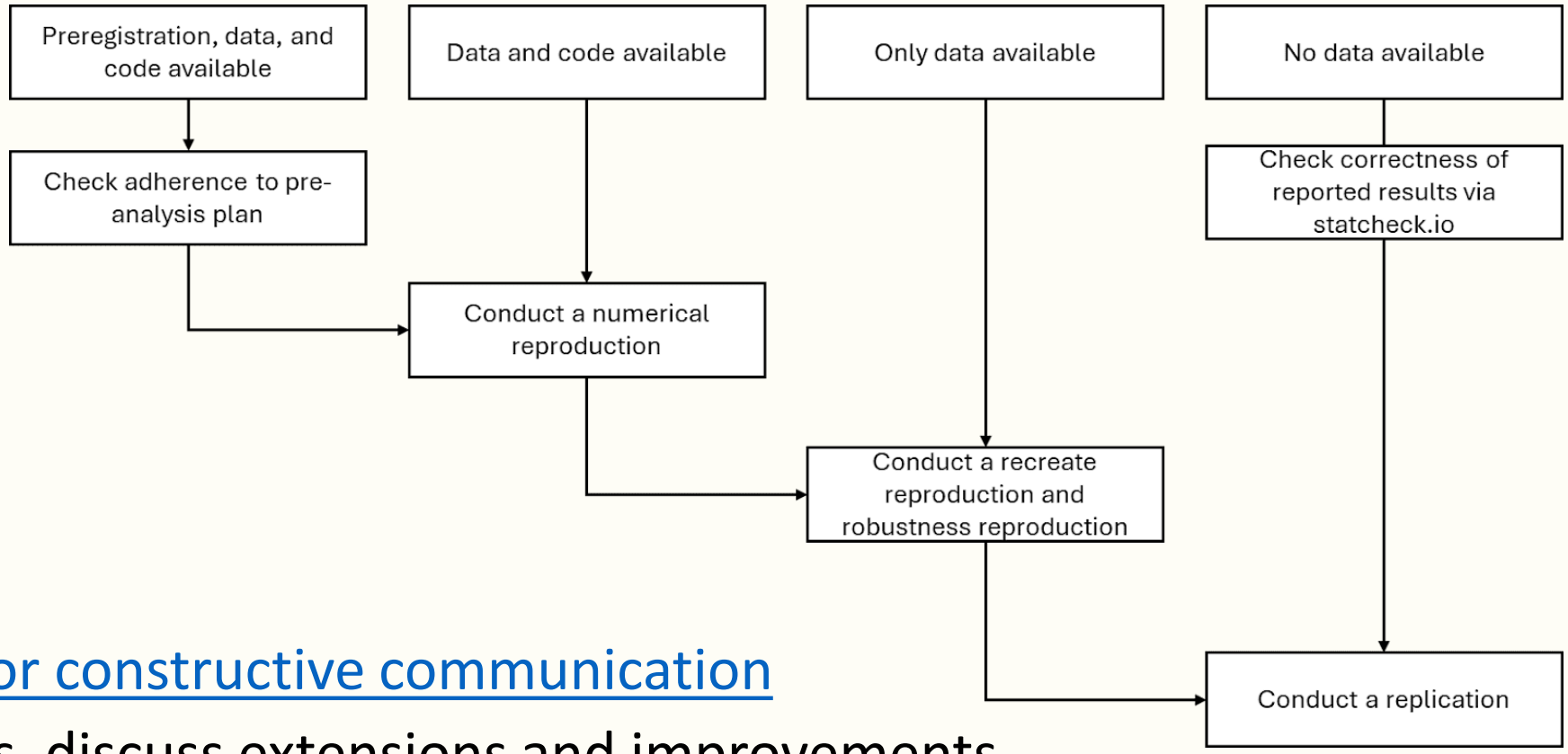
- Learn about transparent reporting
- Become an expert on a landmark study
- Get to know the research that you are building on
- Make sure that you become an expert in a domain that does not die out because of false-positives
- Network with original authors
- Finish a project in a reasonable amount of time
- Demonstrate that you can do open science and are not simply “open-washing” your CV

How replications can be bad for ECRs

The **FORRT Replication Hub** is developing a comprehensive ecosystem to support repetitive research.

forrt.org/replication-hub

Execution



- Use templates for constructive communication
- Update methods, discuss extensions and improvements
- Use manuscript templates (e.g., StaRT) and participate in free workshops
- Reproduction before replication

Publication

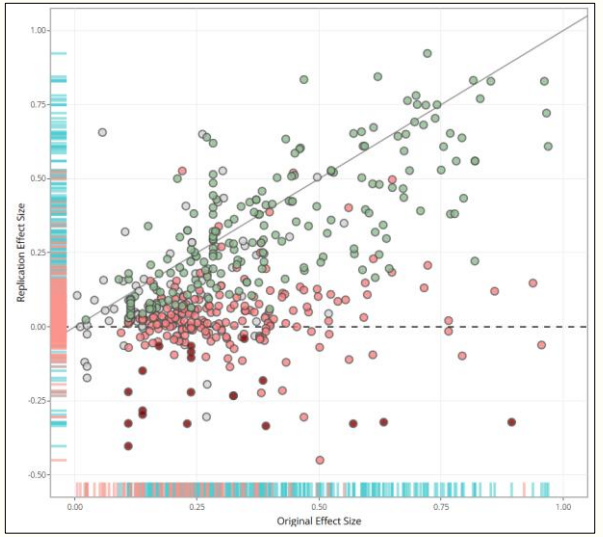
- Most of the original journals don't care even if their "about" section says so
- If a journal wants you to pay APCs for a replication, check if it is a predatory journal
- Choose researcher-owned journals
- Choose diamond open access journals

Journal name	Commercial status	Owner(s)	Discipline(s)	Article types	Website
Journal of Comments and Replications in Economics	Non-commercial, diamond OA	ZBW	Economics	Replications, Reproductions and comments research	https://jcr-econ.org
Journal of Open Psychology Data	Commercial, Gold OA (APCs: 450 pounds)	Ubiquity Press	Psychology	Reproductions (only as Registered Reports)	https://openpsychologydata.metajnl.com
Journal of Robustness Reports	Non-commercial, diamond OA	SciPost	Multidisciplinary	At least two independent reproductions are required, limited to 500 words	https://scipost.org/JRobustRep
Replication Research	Non-commercial, diamond OA	Münster Center for Open Science and FORRT	Multidisciplinary	Reproductions, Replications, Conceptual articles	https://replicationresearch.org
Rescience C	Non-commercial, diamond OA	Nicholas Rougier	Multidisciplinary	Reproductions	https://rescience.github.io
Journal of Management Scientific Reports	Commercial	Sage	Management	Replications, reproductions, related methods	https://smgmt.org/jomsr/
Journal of Reproducibility in Neuroscience	Non-commercial, diamond OA	Center of Trial and Error	Neuroscience	Replications, Comments, Reviews, conceptual articles	https://jrn.trialanderror.org
Rescience X	Non-commercial, diamond OA	Etienne B. Roesch	Multidisciplinary	Replications (Experiments)	http://rescience.org/x
AIS Transactions on Replication Research	Non-commercial, diamond OA	Association for Information Systems (?)	Information Systems	Exact, Methodological, Conceptual Replications	https://aisel.aisnet.org/trr/

Reception

REPLICATION DATABASE

- Enter your finding into the FORRT Replication Database
  - FReD Explorer for meta-analyses
  - FReD Annotator for active searches
  - MaRCo-Bot (Preprint authors are notified of non-cited replications; ~2026)
  - Pubpeer comments for >1K original articles (~2026)
  - Zotero Plug-In (~2026)
  - FReD Lighthouse (FORRT Reversals) for the educational interface; ~2027)
- Good replication journals will include original authors as reviewers or commenters, enforce openness, and check for reproducibility (e.g., JCRE, R2)



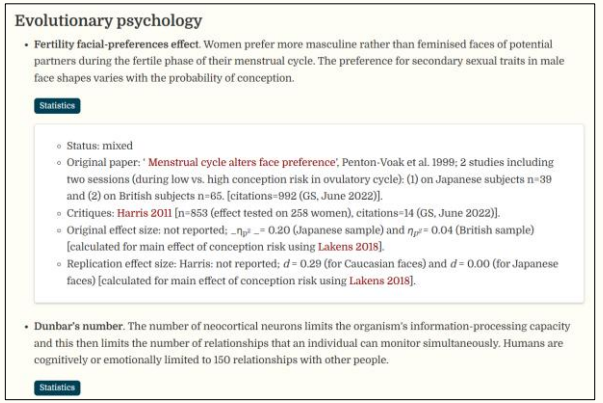

Replication Outcomes

✕ Critcher, C. R., & Gilovich, T. (2008). Incidental environmental anchors. Journal of Behavioral Decision Making, 21, 241–251. Study 2 https://doi.org/10.1002/bdm.586

• **Failure:** Klein, R. A., Vianello, M., Hasselman, F., Adams, B. G., Adams Jr, R. B., Alper, S., ... & Sowden, W. (2018). Many Labs 2: Investigating variation in replicability across samples and settings. Advances in Methods and Practices in Psychological Science, 1(4), 443-490. https://doi.org/10.1177/2515245918810225

? Knobe, J. (2006). The concept of intentional action: A case study in the uses of folk psychology. Philosophical Studies, 130, 203–231. Study 1 https://doi.org/10.1007/s11098-004-4510-0

• **Success:** Klein, R. A., Vianello, M., Hasselman, F., Adams, B. G., Adams Jr, R. B., Alper, S., ... & Sowden, W. (2018). Many Labs 2: Investigating variation in replicability across samples and settings. Advances in Methods and Practices in Psychological Science, 1(4), 443-490. https://doi.org/10.1177/2515245918810225


Evolutionary psychology

• **Fertility facial-preferences effect**. Women prefer more masculine rather than feminised faces of potential partners during the fertile phase of their menstrual cycle. The preference for secondary sexual traits in male face shapes varies with the probability of conception.

Statistics

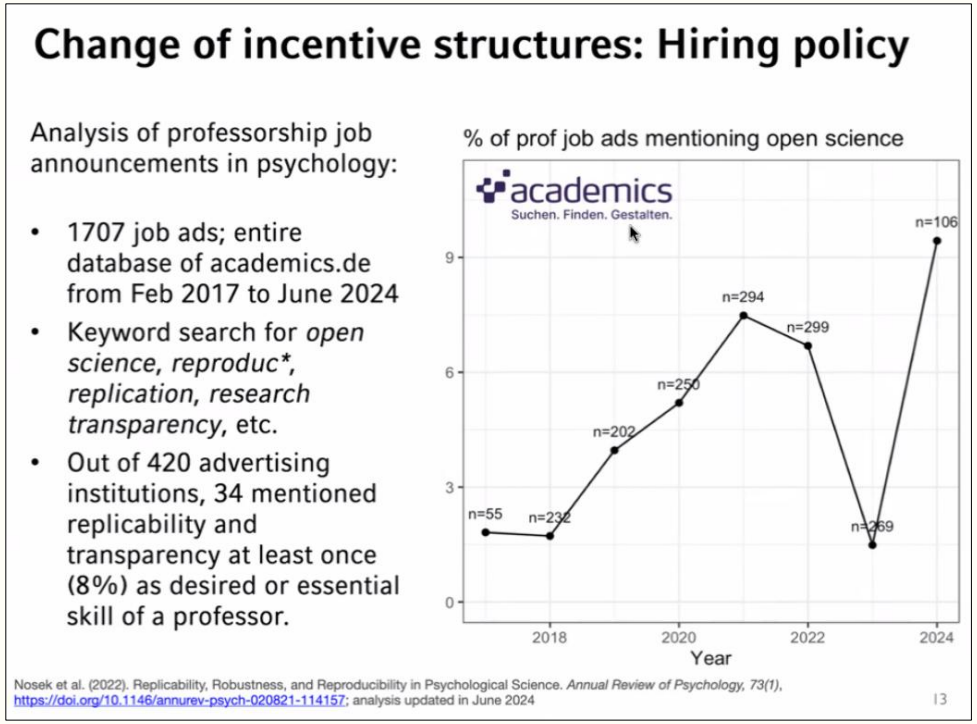
- Status: mixed
- Original paper: ' Menstrual cycle alters face preference', Penton-Voak et al. 1999; 2 studies including two sessions (during low vs. high conception risk in ovulatory cycle): (1) on Japanese subjects n=39 and (2) on British subjects n=65. [citations=992 (GS, June 2022)].
- Critiques: Harris 2011 [n=853 (effect tested on 258 women), citations=14 (GS, June 2022)].
- Original effect size: not reported; η_{p^2} = 0.20 (Japanese sample) and η_{p^2} = 0.04 (British sample) [calculated for main effect of conception risk using Lakens 2018].
- Replication effect size: Harris: not reported; d = 0.29 (for Caucasian faces) and d = 0.00 (for Japanese faces) [calculated for main effect of conception risk using Lakens 2018].

• **Dunbar's number**. The number of neocortical neurons limits the organism's information-processing capacity and this then limits the number of relationships that an individual can monitor simultaneously. Humans are cognitively or emotionally limited to 150 relationships with other people.

Statistics

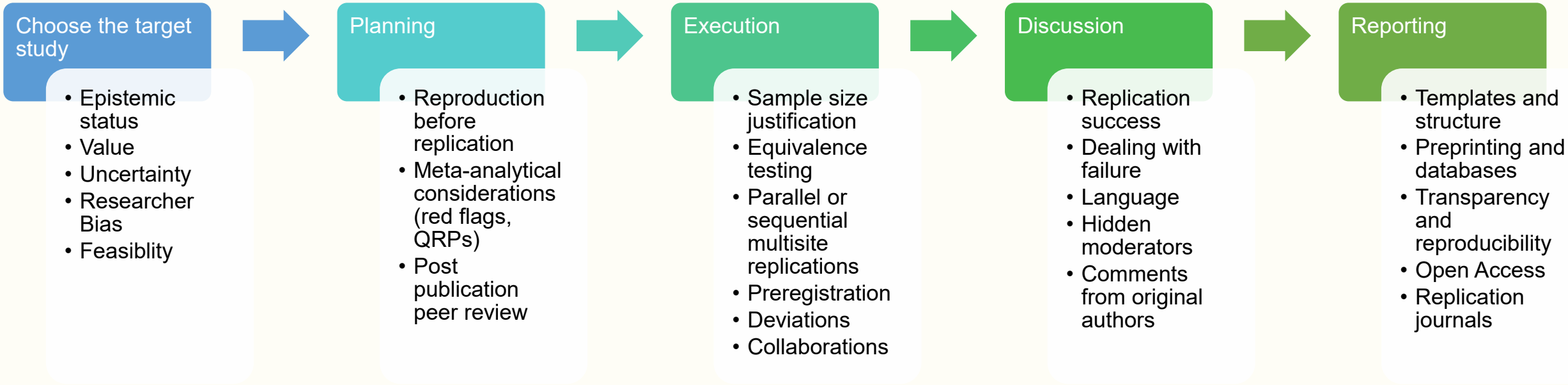
Research Assessment

- Societies' guidelines are being updated (e.g., BPS is moving towards replications, DFG is cooperating with DOAJ)
- Talk to people about commercial publishers (reading, submitting, reviewing, editing)
- Many universities have open science officers who want to get open science aspects into the hiring policy
- Universities have signed SF DORA and are members of CoARA



Schönbrodt, 2025 @SIPS online

How to do good reproductions/replications?



Röseler, L., Wallrich, L., Hartmann, H., Azevedo, F., Hüffmeier, J., Goltermann, J., Pennington, C. R., Boyce, V., Field, S. M., Pittelkow, M.-M., van Ravenzwaaij, D. (in prep). Carrying out Reproductions and Replication Studies: Guideliens for the Social Sciences.

So why do replications?

- You don’t do replications because you want to play the publish-or-perish game but because you **care about science**.
- If you want to make a statement that you care about science, **then to replicate is the strongest way** to make it.
- Thanks to open science advocates, replications can be easily conducted, published in good journals, received by a large community, and positively affect research assessment

Get involved

- Expression of interest for involvement in editorial team
- FORRT projects: https://forrt.org/about/get-involved/
- Submit your reproduction/replication/conceptual article to Replication Research – launching 10-10-2025

REPLICATION RESEARCH

DIAMOND OPEN ACCESS JOURNAL

- Free to read
- Free to publish
- Researcher-led
- Pre-Print friendly
- Non-commercial

MULTIDISCIPLINARY

- Psychology
- Marketing
- Mental health
- Political Science
- Quantitative Methods
- Neuroimaging
- Neuroscience
- Management Science
- Linguistics
- Geoscience

REPETITIVE RESEARCH

- Replications
- Reproductions
- Conceptual contributions, reviews, and meta-papers

ROBUST AND TRANSPARENT

- Reproducibility checks
- Open Data, Materials, and Code
- Registered Reports
- Open Peer Review
- Citable review reports
- Citable reproducibility certificates

https://replicationresearch.org

Slides: osf.io/u7f2e

FORRT Replication Hub Contributors (so far)

Hartmann, H., Röseler, L., Wallrich, L., Ashcroft-Jones, S., Aldoh, A., Doetsch, C., Elsherif, M. M., Kaiser, L., Klett, N., Krapp, J., Liu, M., Pavlović, Z., Pennington, C. R., Schüller, S. M., Seida, C., Skvortsova, A., Schütz, A., Aczel, B., Agostini, V., Al-Hoorie, A. H., Alarie, S., Anvari, F., Arriaga, P., Baker, B. J., Barth, C. L., Bauer, D. J., Beitner, J., Belaus, A., Bhatt, H., Boyce, V., Brick, C., Brohmer, H., Brummernhenrich, B., Budd, E., Butler, A., Chandrashekar, S., Chen, S., Chung, K., Cockcroft, J. P., Crowe, P., Cummins, J., Deane, O., Dienlin, T., Diveica, V., Draguns, A., Dumbalska, T., Evans, T. R., Exner, A., Farrar, B. G., Feldman, G., Fillon, A., Fontana Vieira, F., Förster, N., Frese, J., Gattie, M. C., Genschow, O., Giannouli, V., Gjoneska, B., Gnambs, T., Graham, C. J., Greshake Tzovaras, B., Hausenloy, J., Henderson, E. L., Herderich, A., Hilbert, L., Höfer, L., Holgado, D., Hussey, I., Ilchovska, Z. G., Imada, H., Izydorczak, K., Jeftić, A., Kalandadze, T., Karhulahti, V., Kasseckert, L., Kastrinogiannis, A., Klingelhöfer-Jens, M., Kocalar, H. E., Koppel, L., Koppold, A., Korbmacher, M., Kujawa, Z., Kulke, L., Kumar, P., Kuper, N., LaPlume, A. A., Lee, J., Leech, G., Liu, Y., Leksina, E., Lohkamp, F., Lou, N., Lynott, D., Meier, M., Mackinnon, S., Maiya, S., Mathes, L., McSharry, D., Meidenbauer, K. L., Micheli, L., Montefinese, M., Moreau, D., Moser, N., Muthu, J., Mrkva, K., Nádvorník, J., Narkar, N., Nemcova, M., O'Mahoney, R., Oberholzer, Y., Oomen, D., Packheiser, J., Pandey, S., Panton, H., Papenmeier, F., Parsons, S., Paruzel-Czachura, M., Pavlov, Y. G., Pittelkow, M., Plomp, W., Plonski, P. E., Pronizius, E., Pua, A., Pypno-Blajda, K., Rausch, M., Reason, R., Rebholz, T. R., Röer, J. P., Ross, R. M., Schmidt, K., Sempere, N., Sperl, M. F., Stevens, J. R., Tan, A. W., Thürmer, J., Tiulpakova, M., Tołopiło, A., Tunca, B., Vanpaemel, W., Vaughn, L., Verheyen, S., Weber, L., Wingen, S., Wolska, J., Yeung, S., Zaneva, M., Adelina, N., Albayrak-Aydemir, N., Alzahawi, S., Breemer, L., Efendic, E., El Halabi, M., Enright, S., Floyd, J., Gourdon-Kanhukamwe, A., Guay, S., Haviva, C., Jaubert, S., Kamermans, K., Lecuona, O., Lin, C., Maier, M., Makel, M. C., O'Mahony, A., Richert, E., Russo, S., Tomczak, J., Vineyard, G. H., Weinberg, A., Zimmermann, D., Deressa, T., Sandkühler, J., Szekely, R., Raza, H., Lach, R., Osano, M., Manríquez-Robles, D., Manrique-Castano, D., Younssi, M., Pravednikov, A., Gemmecke, C., Otstavnov, N., Sobolak, R., Becker, R., Resulbegoviq, H., Daniel, A., Bhogal, J., Stogianni, M., Miller, T., Casula, A., Imwene, P., Jekel, M., Brodeur, A., van Randenborgh, A., Isager, P. M., Altegoer, L., Goltermann, J., Hüffmeier, J., Field, S. M., van Ravenzwaaij, D., Back, M., Horstmann, J., Busch, N., Richter, H., Schönbrodt, F., Saam, M., Brembs, B., Carlsson, R., Adler, S., Oppong Boakye, P., Sawatzky, E., Klötgen, S., Unkenholz, J., & Mohr, C., Azevedo, F.

https://replicationresearch.org

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Partners

JCRE Journal of Comments and Replications in Economics
ISSN 2749-988X

THE REPLICATION NETWORK
Furthering the Practice of Replication in Economics

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