

# The solution: Open Research for UG and PG



**@etienneroesch | [osf.io/ede88](https://osf.io/ede88)**

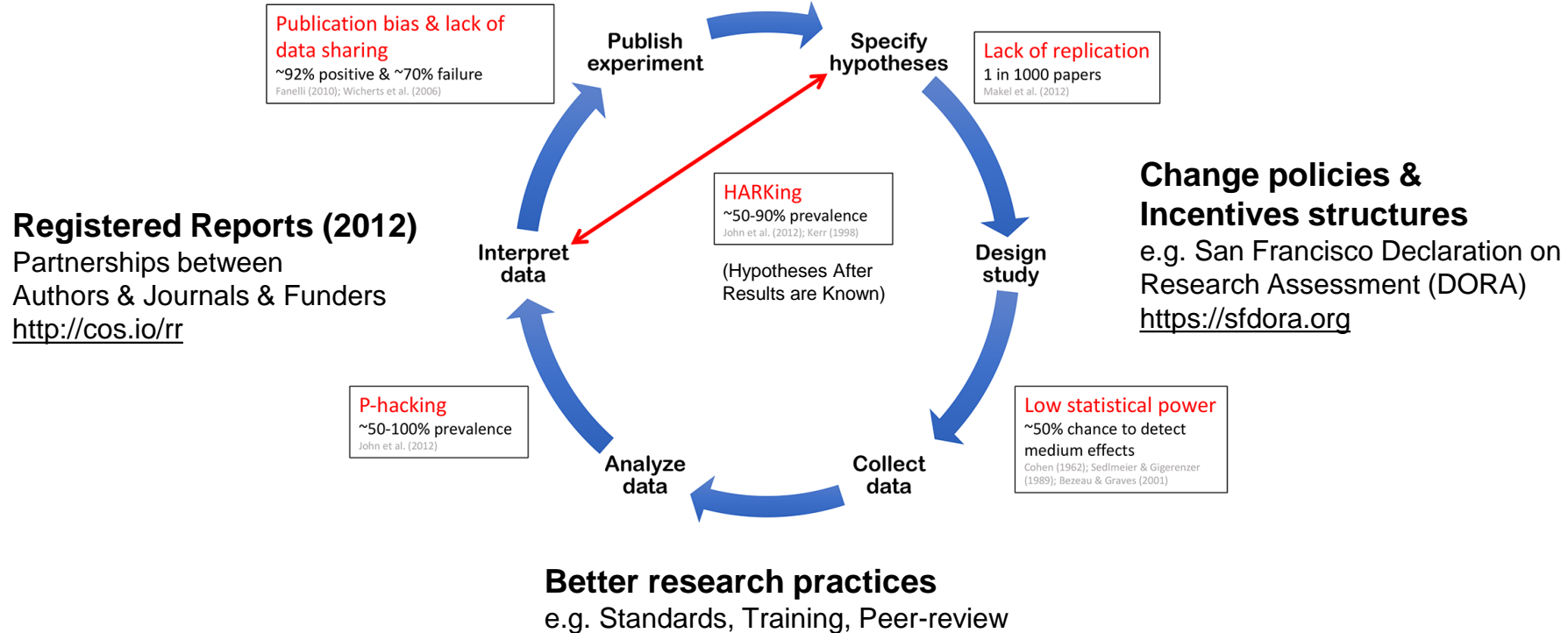
Associate Professor of Cognitive Science

Deputy Director of Imaging, Centre for Integrative Neuroscience and Neurodynamics

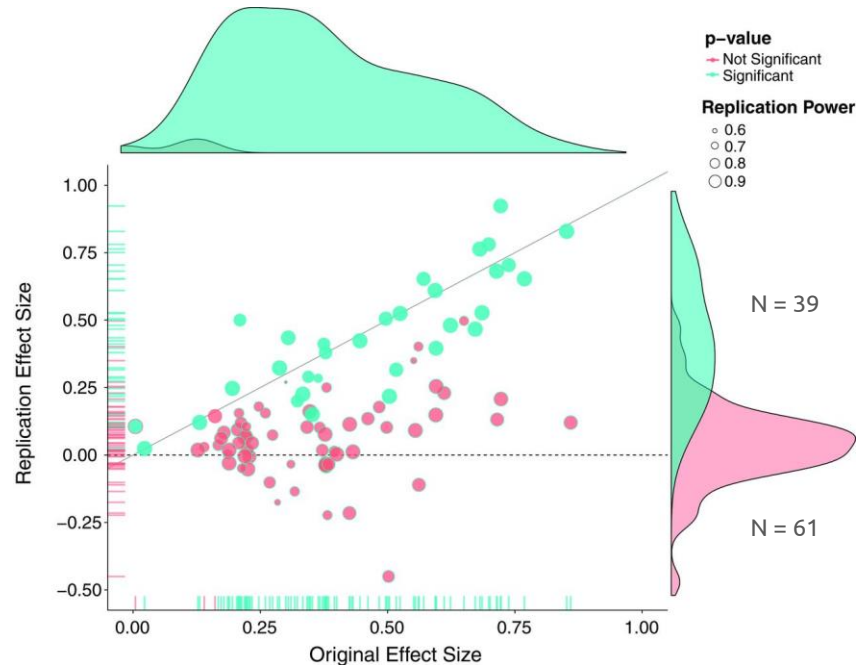
## New journal policies New publishing culture

e.g. ReScience C & ReScience X  
<http://rescience.github.io>

Munafò et al. (2017). A manifesto for reproducible science.  
Nature Human Behaviour, 1(1), 0021.  
<https://doi.org/10.1038/s41562-016-0021>

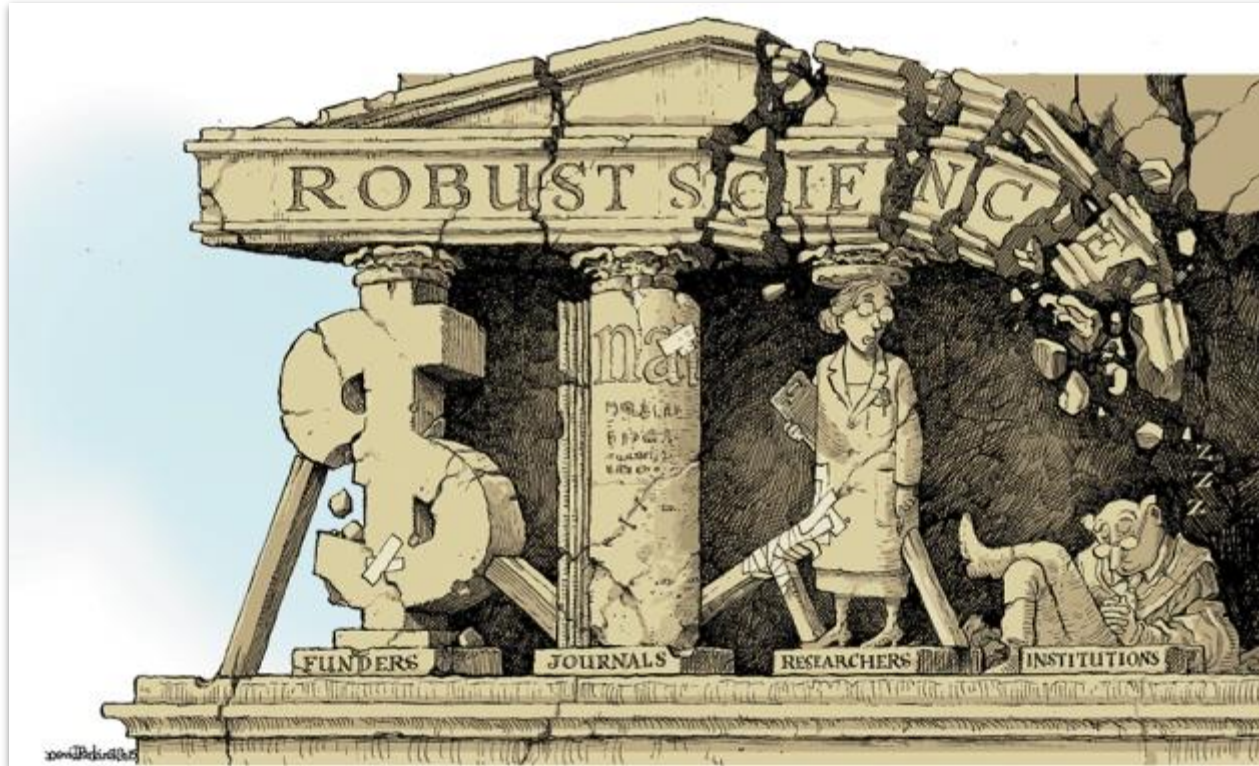


Nosek, et al. (2015). Estimating the reproducibility of psychological science.  
Science, 349(6251), aac4716. <https://doi.org/10.1126/science.aac4716>



### Original study effect size versus replication effect size (correlation coefficients).

Diagonal line represents replication effect size equal to original effect size. Dotted line represents replication effect size of 0. Points below the dotted line were effects in the opposite direction of the original. Density plots are separated by significant (green) and nonsignificant (red) effects.



Nature, September 1, 2015.  
Reproduced by courtesy of Nature Publishing Group.

# The solutions: Students

# Meanwhile, in the School of Psychology & Clinical Language Sciences...

- Past — 2018: 200 UG/y + 50 PG/y
- 2018 — foreseeable future:
  - BSc Psychology (w Placement / w Neuroscience)
  - BSc Psychology & Languages Sciences
  - MSci Applied Psychology
  - MSc Conversion
  - MSc Theory and Practice of Clinical Psychology
  - MSc Research Methods in Psychology
  - MSc Cognitive Neuroscience



**Curriculum Framework Review**

**Healthy update of MSc offering**







[https://en.wikipedia.org/wiki/Emanuel\\_Santos#Busts of Cristiano Ronaldo](https://en.wikipedia.org/wiki/Emanuel_Santos#Busts_of_Cristiano_Ronaldo)



# Disclaimer: It's all up in the air

# Reproducibility will be a requirement for BPS accreditation

PY1SN Introduction to Programming

PY1IPR Introduction to Psychological Research

PY1BSP Big Science Project

PY2RIP Reproducibility in Psychology

PY2RMP Research Methods in Psychology

PY2ANS Applied Neuroscience

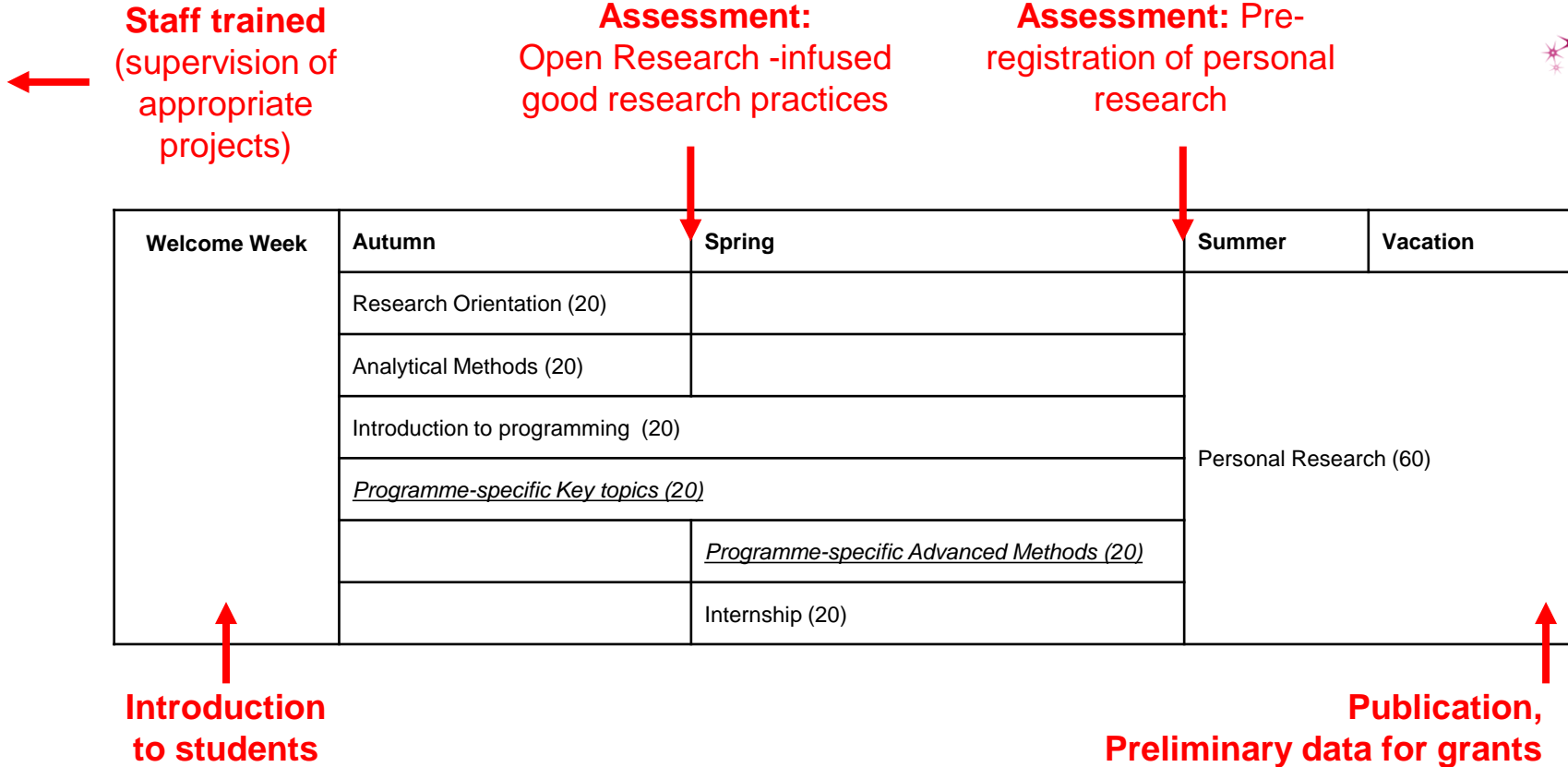
PY3P Empirical Project

PY3RIA Research in Action

PY3CCP Communicating Current Psychology

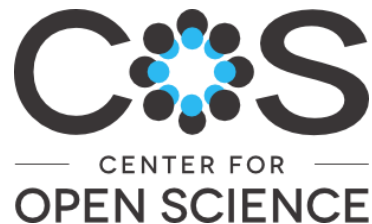


The  
British  
Psychological  
Society





UK  
Reproducibility  
Network



# Thanks for your attention!



# PY2RIP Reproducibility in Psychology

- Is there a reproducibility crisis? (Hint: No).
- What is reproducibility? Why bother?
- Are all disciplines created equal?
- How is psychology different from physics?
- Metrology, the science of reproducibility and the metric system.
- Reproducibility in psychology and neuroscience.
- The devil is in the detail: Reproduction of methods vs replication of data, and other jargon. (cut through the crap and do good science)
- Impediments to reproducibility, and self-correction in Science.
- Evolution and legacies in academic publishing.
- A 1001 way to publish in Nature: What happens when you put researchers under pressure? Incentives and structural roots. (p-hacking, HARKing, etc)
- The right (statistical) tool for the right question: The world through statistics (questions afforded by statistics), Cargo Cult statistics, misunderstood Fisher and reborn Bayes-Price.
- Visualizing good science: Why bar plots should be banned, and pretty graphs.
- Reproducibility in practice: Where do I start? How do I keep at it? (click-click vs scripting, and best practices in open research)
- Why learning coding and reading philosophy are the two single most important hobbies you should take.
- Truth or Dare? Pre-register PY3P.
- Evangelical reproducibility: What to say when your supervisor doesn't care.