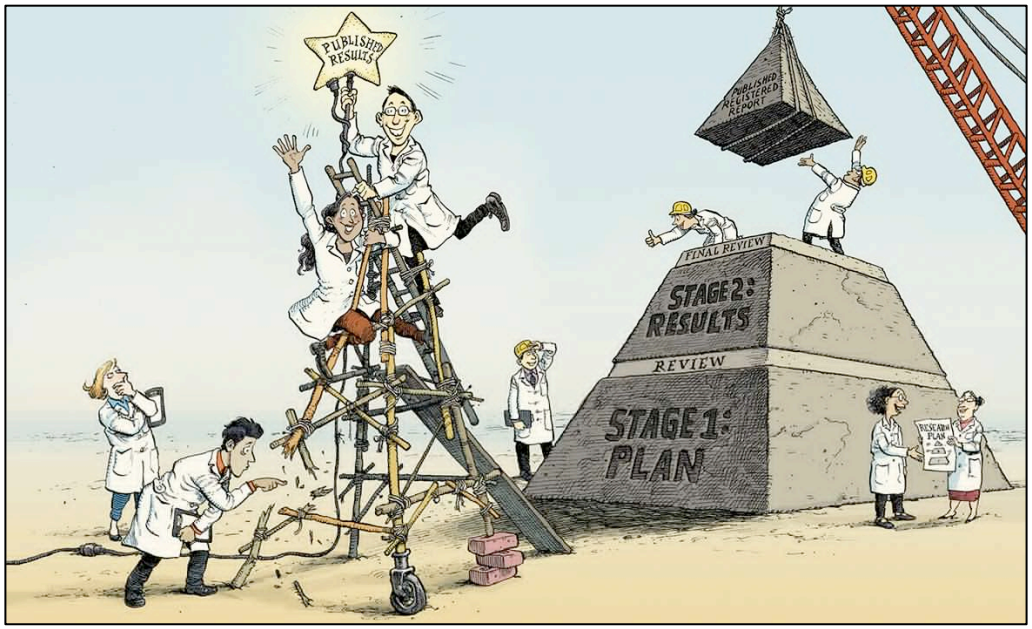
Registered Reports

Hypothesis-testing as it was originally intended?



Chris Chambers

Cardiff University Brain Research Imaging Centre (CUBRIC)

School of Psychology, Cardiff University

Email: chambersc1@cardiff.ac.uk

Twitter: @chrisdc77

These slides: https://osf.io/h5du2/

A paradox

Which part of a research study do you believe should be beyond your control as a scientist?

The results

Which part of a research study do you believe is most important for advancing your career?

The results

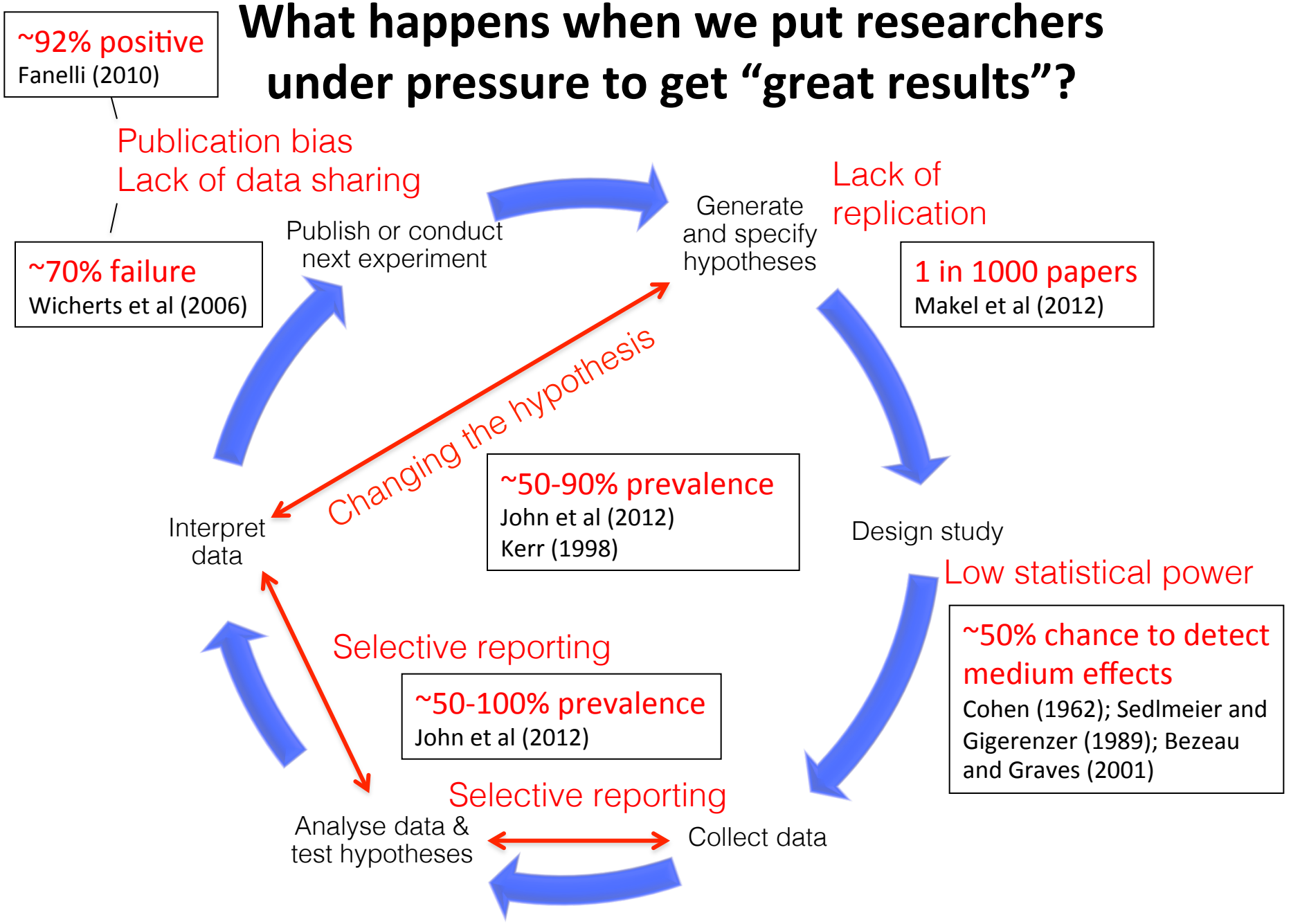
Don’t touch THIS

The results

But make sure THIS is amazing

The results

What happens when we put researchers under pressure to get "great results"?



Solution: make results a
dead currency in quality evaluation

Registered Reports

CORTEX 49 (2013) 609–610

Available online at www.sciencedirect.com

SciVerse ScienceDirect

Journal homepage: www.elsevier.com/locate/cortex

Editorial

Registered Reports: A new publishing initiative at *Cortex*

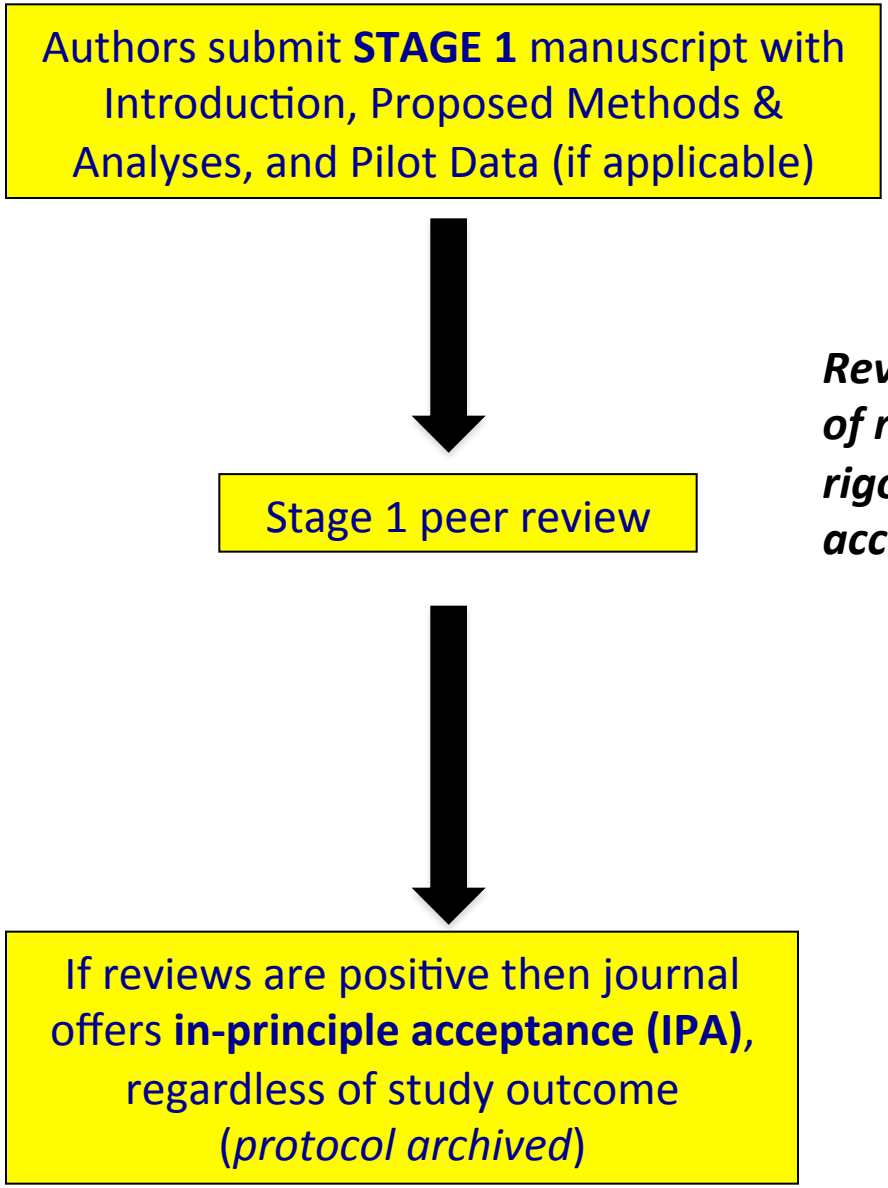
Christopher D. Chambers

Cardiff University Brain Research Imaging Centre (CUBRIC), School of Psychology, Cardiff University, United Kingdom

Four central aspects of the Registered Reports model:

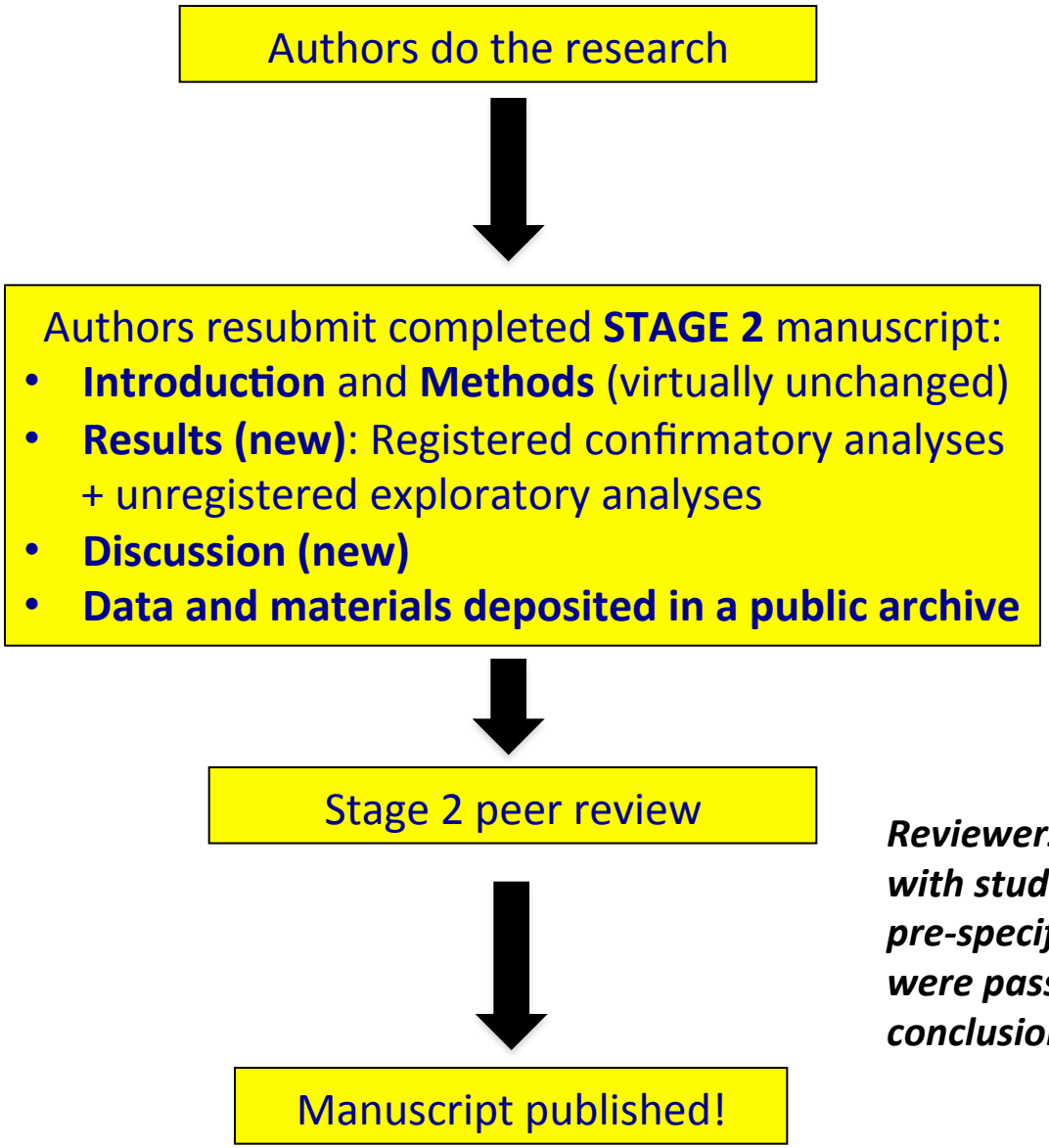
- Researchers decide hypotheses, study procedures, and main analyses *before* data collection
- Part of the peer review process takes place before studies are conducted
- Passing this stage of review virtually guarantees publication
- Original studies and high-value replications are welcome

How it works



Reviewers assess importance of research question and rigour of the methodology according to specific criteria

How it works



Reviewers assess compliance with study protocol, whether pre-specified quality checks were passed, and whether conclusions are evidence-based

None of these things matter

Main advantages of Registered Reports

For the scientific community

- Rigorous review of theory and methods
- Eliminates publication bias and reporting bias

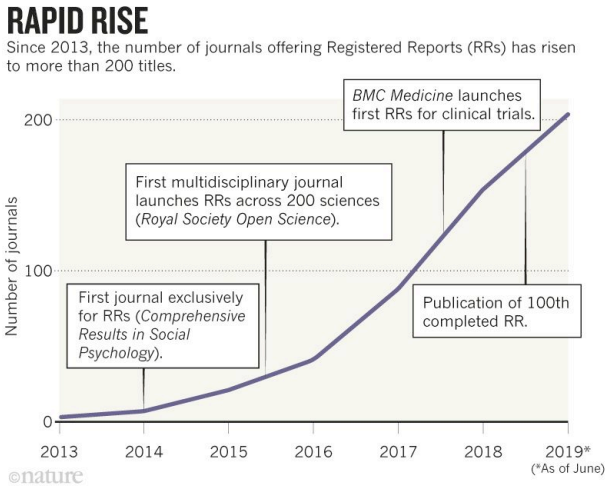
For scientists

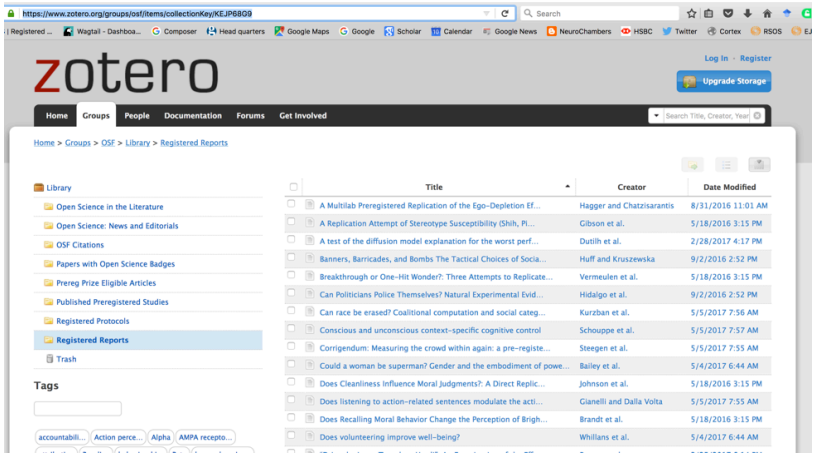
- Peer review when it is most helpful
- Publication guaranteed regardless of the results

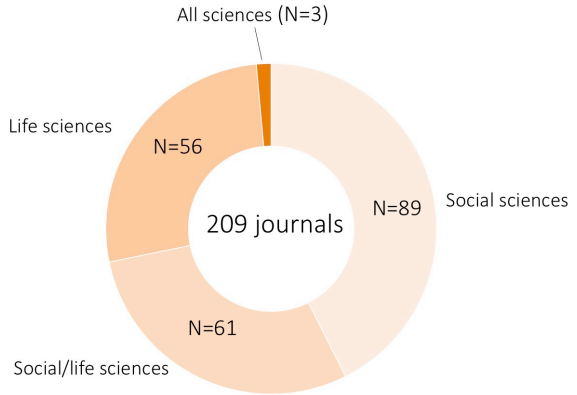
Six years later…

Registered Reports are now mainstream

- **215** journals have adopted them so far
- Fields covered
  - **Life/medical sciences**: neuroscience, nutrition, psychology, psychiatry, biology, botany, cancer research, ecology, endocrinology, clinical medicine, preclinical science, veterinary science, agricultural & soil sciences
  - **Social sciences**: education, political science, economics, finance and accounting research
  - **Physical sciences**: chemistry, physics, computer science





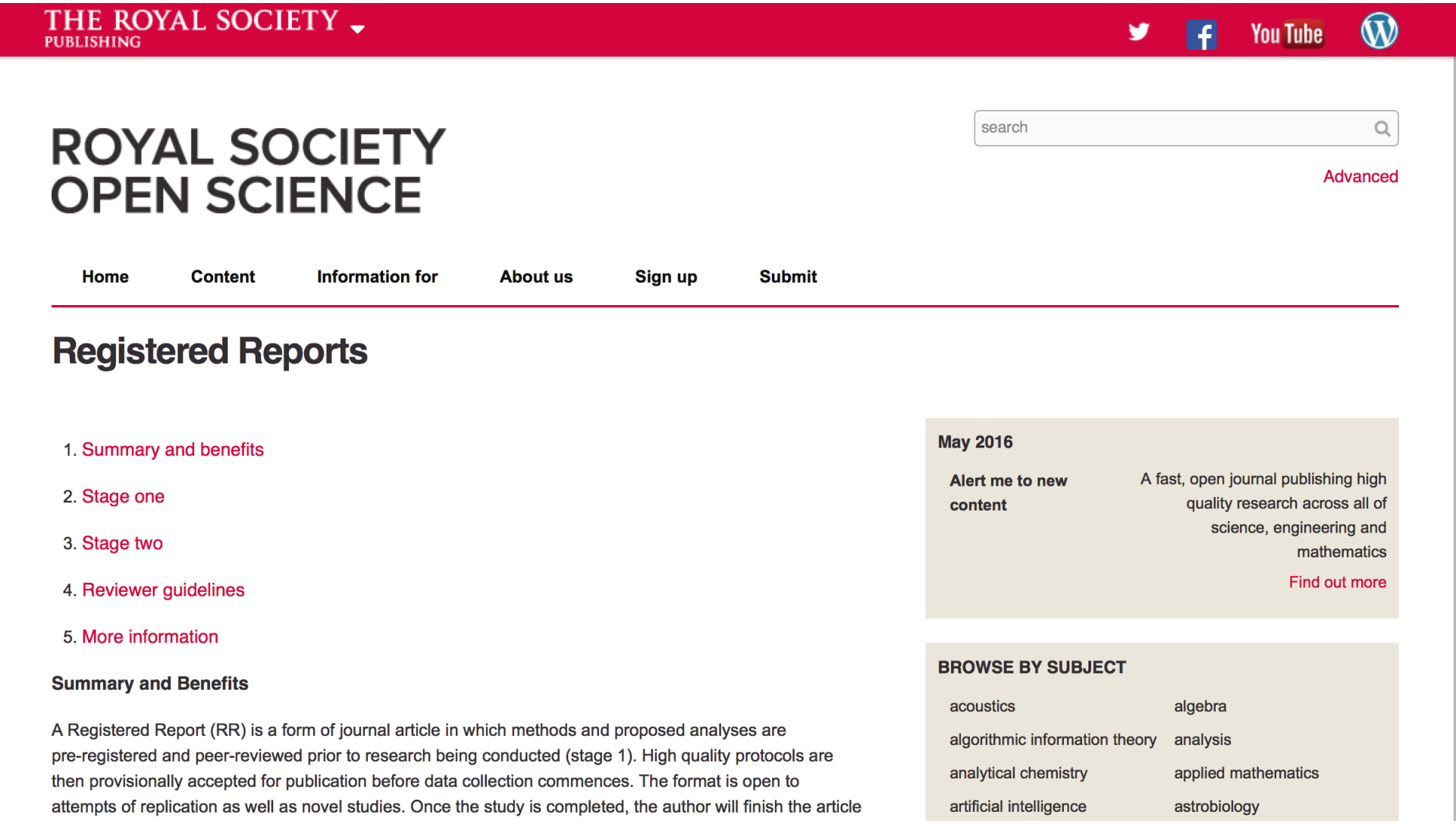


https://www.zotero.org/groups/osf/items/collectionKey/KEJP68G9

~300 fully completed RRs have been published so far

Registered Reports at *Royal Society Open Science*

Now available in all STEM areas, from physics to psychology



http://rsos.royalsocietypublishing.org/content/registered-reports

Registered Reports at *Nature Human Behaviour*

Disciplines covered in the journal include:

Anthropology	Evolution
Artificial Intelligence	Genetics
Business Studies	Geography
Cognitive Science	Linguistics
Communication	Management
Criminology	Neurology
Cultural Studies	Neuroscience
Ecology	Political Science
Economics	Psychiatry
Education	Psychology
Epidemiology	Public Policy
Ethology	Sociology

- Sets extremely high bar on **importance** of the proposed research question and **rigour and robustness** of proposed methodology

Registered Reports at *BMC Medicine*

- **The first Registered Reports model for clinical trials**
  - Prevents hidden outcome switching (AKA outcome reporting bias; see http://www.compare-trials.org/
  - Eliminates publication bias and ensures all trials are published regardless of outcome
  - Should all clinical trials be published as Registered Reports?

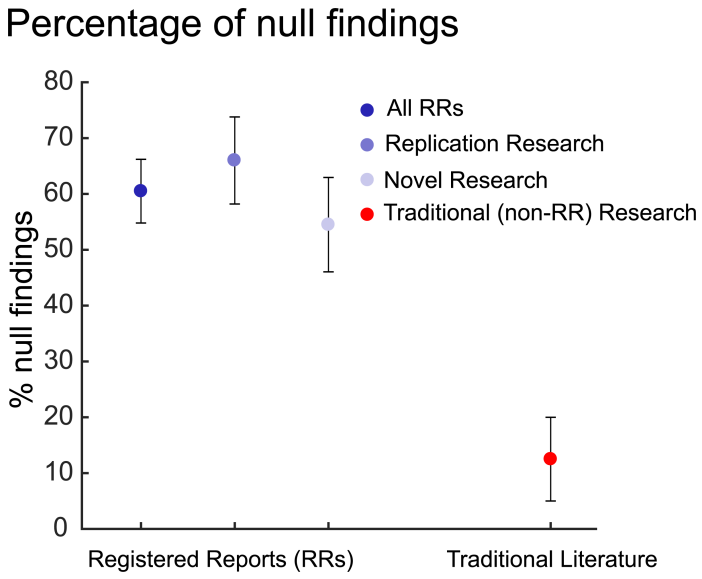
Registered Reports appear to be working as intended

NEWS · 24 OCTOBER 2018

First analysis of 'pre-registered' studies shows sharp rise in null findings

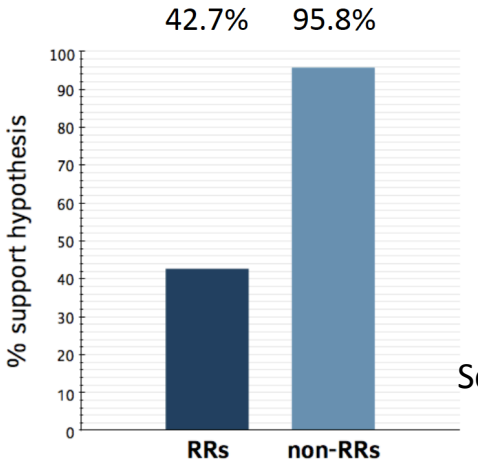
Logging hypotheses and protocols before performing research seems to work as intended: to reduce publication bias for positive results.

Matthew Warren



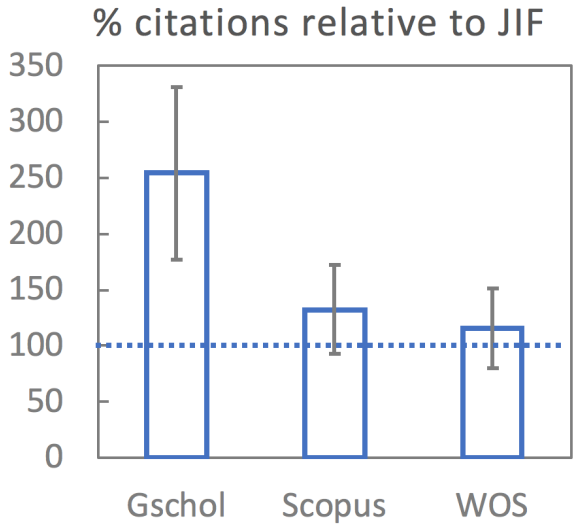
Hypotheses are ~5 times more likely to be **unsupported** in Registered Reports compared with regular articles

Allen C, Mehler DMA (2019) Open science challenges, benefits and tips in early career and beyond. PLoS Biol 17(5): e3000246. https://doi.org/10.1371/journal.pbio.3000246



Same observation in RRs within psychology specifically

Schijen, Scheel & Lakens (2019)

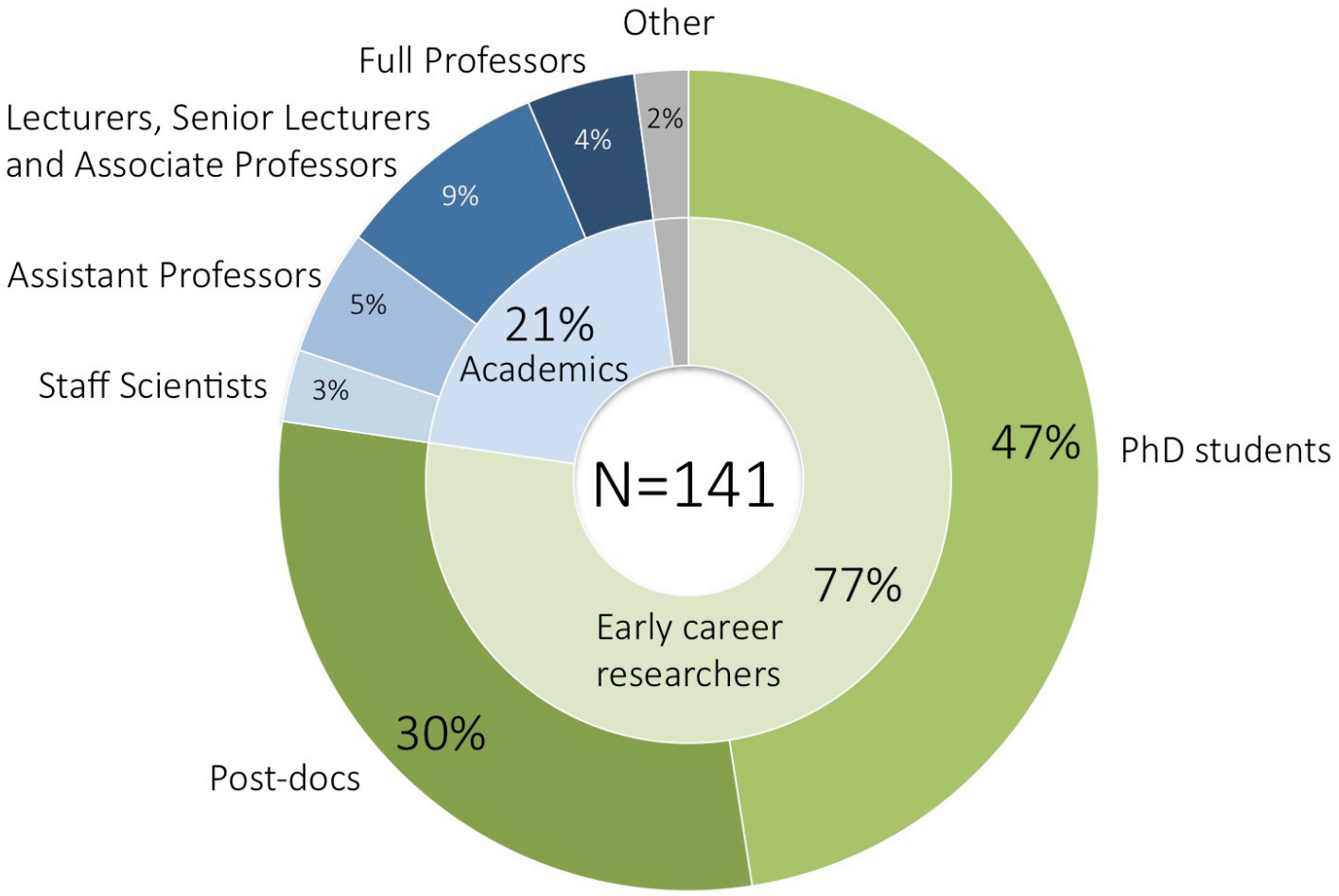


Well cited -- at or above respective journal impact factor

https://tinyurl.com/RR-citations

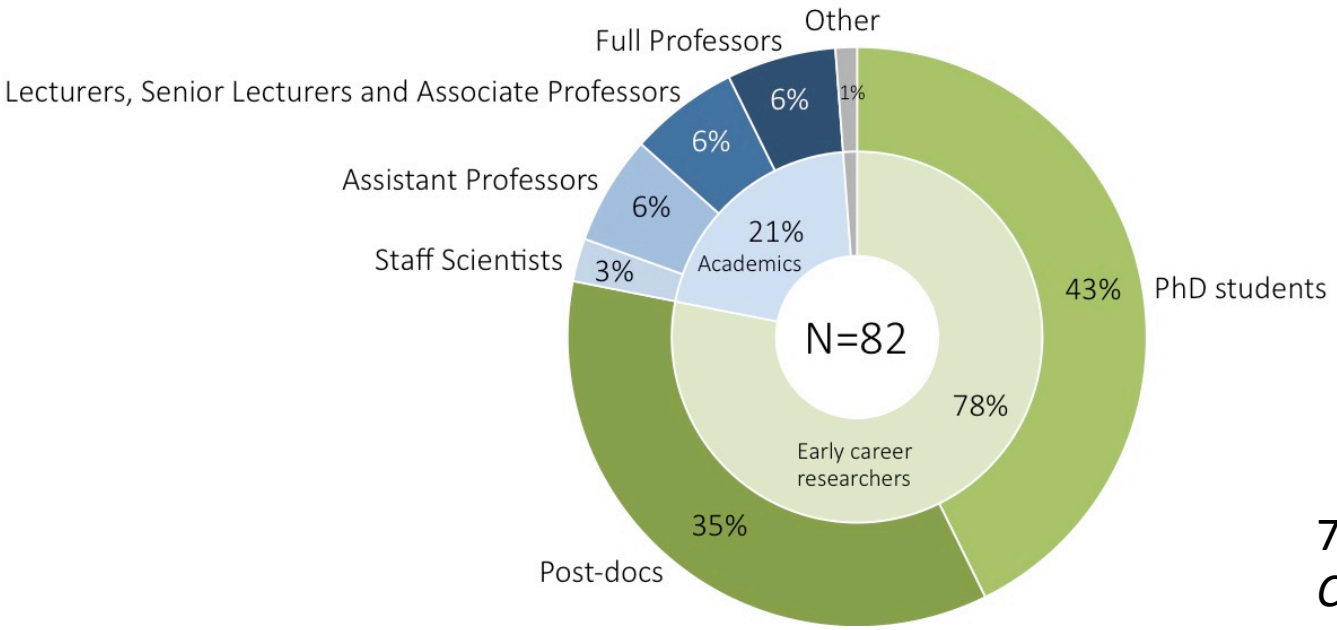
And see Hummer, L. T., Singleton Thorn, F., Nosek, B. A. & Errington, T. M. Preprint: https://doi.org/10.31219/osf.io/5y8w7

Who is submitting Registered Reports?

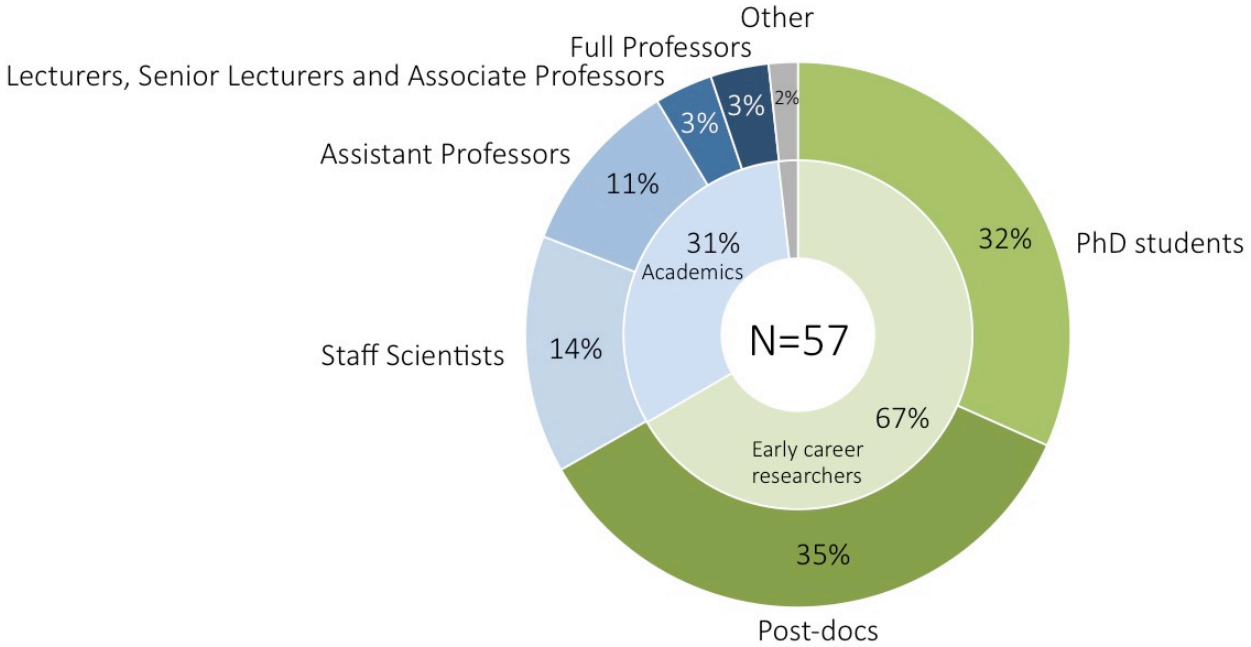


Of 141 Registered Reports submitted so far to *Cortex*, *European Journal of Neuroscience*, *NeuroImage* and *Royal Society Open Science*, 77% were first-authored by early career researchers

REGISTERED REPORTS



REGULAR ARTICLES



78% of submitted RRs at *Cortex* are 1st-authored by ECRs *vs.* 67% of comparable regular articles

Curated list

https://cos.io/rr/

Registered Reports | Participating Journals | Details & Workflow | Resources for Editors | For Funders | FAQ | Allied Initiatives

Currently, **209** journals use the Registered Reports publishing format either as a **regular submission option** or as part of a single **special issue**. Other journals offer **some features** of the format. This list will be updated regularly as new journals join the initiative.

For an article type to qualify as a registered report, the journal policy must include at least these features:

- Peer review occurs prior to observing the outcomes of the research.
- Manuscripts that survive pre-study peer review receive an in-principle acceptance that will not be revoked based on the outcomes, but only on failings of quality assurance, following through on the registered protocol, or unresolvable problems in reporting clarity or style.

See also this table that compares the specific features of Registered Reports at different outlets or a summary of each journal here.

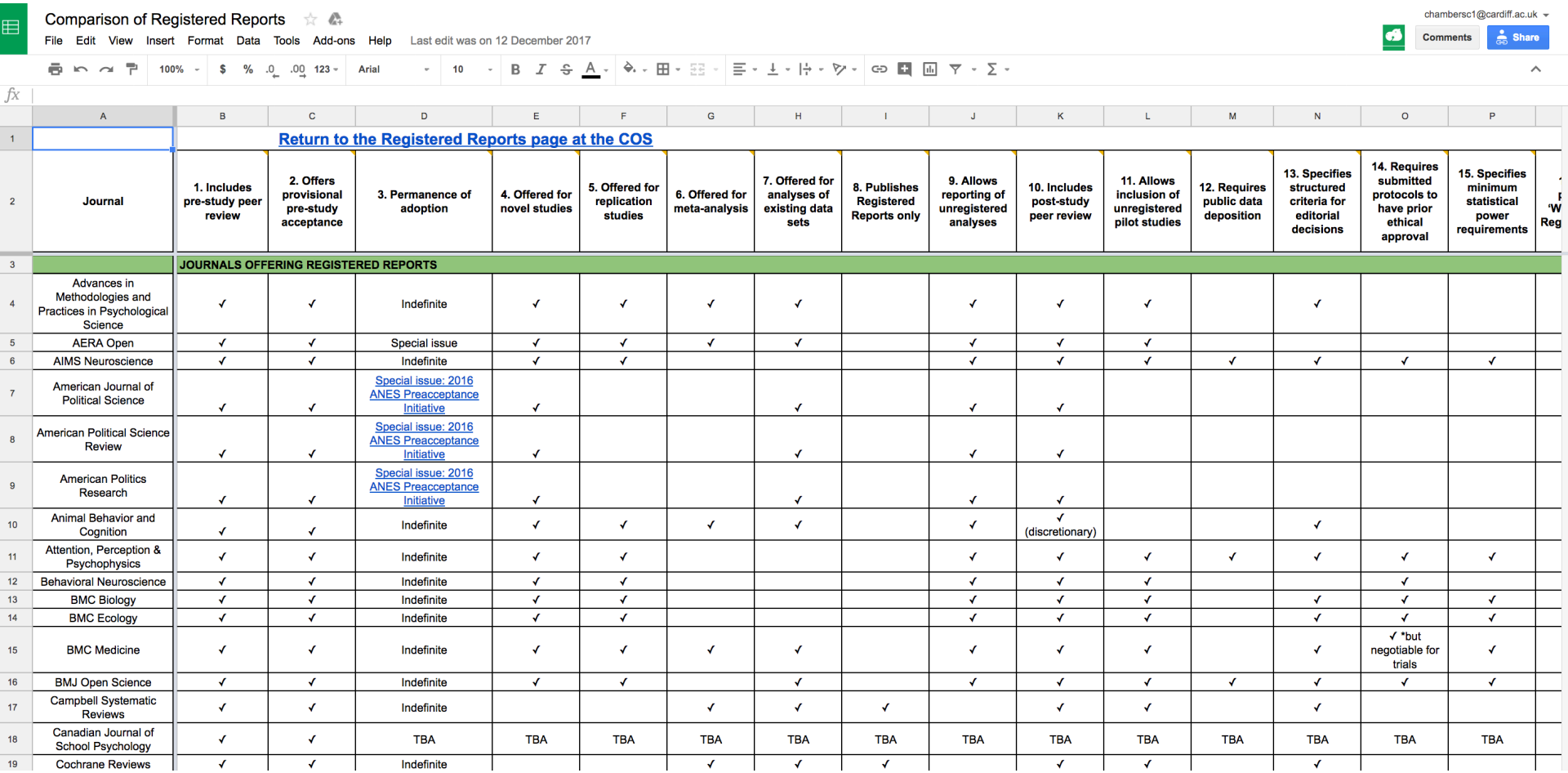
If you are considering a Registered Reports submission but not sure how to get started, a good way to begin is to **(a)** read the specific author guidelines included in the list of participating journals below, **(b)** complete this template protocol and then **(c)** expand the template protocol into a full Stage 1 manuscript.

Journals that have adopted Registered Reports | **Special Issues** | **Some Features**

Journal	Notes
AAS Open Research	Author Guidelines
Academia Journal of Stroke	Details to follow

Policy features tables

https://tinyurl.com/RR-policyfeatures



Comparison of Registered Reports

File Edit View Insert Format Data Tools Add-ons Help Last edit was on 12 December 2017

chambersc1@cardiff.ac.uk

Comments Share

Return to the Registered Reports page at the COS

Journal	1. Includes pre-study peer review	2. Offers provisional pre-study acceptance	3. Permanence of adoption	4. Offered for novel studies	5. Offered for replication studies	6. Offered for meta-analysis	7. Offered for analyses of existing data sets	8. Publishes Registered Reports only	9. Allows reporting of unregistered analyses	10. Includes post-study peer review	11. Allows inclusion of unregistered pilot studies	12. Requires public data deposition	13. Specifies structured criteria for editorial decisions	14. Requires submitted protocols to have prior ethical approval	15. Specifies minimum statistical power requirements
JOURNALS OFFERING REGISTERED REPORTS															
Advances in Methodologies and Practices in Psychological Science	✓	✓	Indefinite	✓	✓	✓	✓		✓	✓	✓		✓		
AERA Open	✓	✓	Special issue	✓	✓	✓	✓		✓	✓	✓				
AIMS Neuroscience	✓	✓	Indefinite	✓	✓				✓	✓	✓	✓	✓	✓	✓
American Journal of Political Science	✓	✓	Special issue: 2016 ANES Preacceptance Initiative	✓			✓		✓	✓					
American Political Science Review	✓	✓	Special issue: 2016 ANES Preacceptance Initiative	✓			✓		✓	✓					
American Politics Research	✓	✓	Special issue: 2016 ANES Preacceptance Initiative	✓			✓		✓	✓					
Animal Behavior and Cognition	✓	✓	Indefinite	✓	✓	✓	✓		✓	✓ (discretionary)			✓		
Attention, Perception & Psychophysics	✓	✓	Indefinite	✓	✓				✓	✓	✓	✓	✓	✓	✓
Behavioral Neuroscience	✓	✓	Indefinite	✓	✓				✓	✓	✓			✓	
BMC Biology	✓	✓	Indefinite	✓	✓				✓	✓	✓		✓	✓	✓
BMC Ecology	✓	✓	Indefinite	✓	✓				✓	✓	✓		✓	✓	✓
BMC Medicine	✓	✓	Indefinite	✓	✓	✓	✓		✓	✓	✓		✓	✓ *but negotiable for trials	✓
BMJ Open Science	✓	✓	Indefinite	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓
Campbell Systematic Reviews	✓	✓	Indefinite			✓	✓	✓		✓	✓		✓		
Canadian Journal of School Psychology	✓	✓	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Cochrane Reviews	✓	✓	Indefinite			✓	✓	✓		✓	✓		✓		

Curated list

https://cos.io/rr/

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Academia Journal of Stroke	Details to follow

FAQS

https://cos.io/rr/

Registered Reports | Participating Journals | Details & Workflow | Resources for Editors | For Funders | FAQ | Allied Initiatives

Frequently Asked Questions

Novelty of Format

- How do Registered Reports differ from clinical trial registration?
- Why are Registered Reports needed for grant-funded research? Isn't the process of grant assessment in itself a form of pre-registration?

Philosophy of Science

- The Registered Reports model is based on a naïve conceptualisation of the scientific method.
- Registered Reports may not apply to my specific field therefore it is not a useful solution.

Design and Analysis

- Where authors are unable to predict the likely effect size for an experiment, how can they report a power analysis as part of a Stage 1 submission?
- Setting a requirement of 90% for statistical power is unrealistic for expensive methods and would require impossibly large sample sizes. The Registered Reports format therefore disadvantages researchers who work with expensive techniques or who have limited resources.
- Some of my analyses will depend on the results, so how can I pre-register each step in detail?
- My aim is to publish a series of experiments but the design of the later experiments is contingent upon the outcomes of the earlier ones. Isn't Registered Reports limited to single experiments?

Timescale

What happens next?

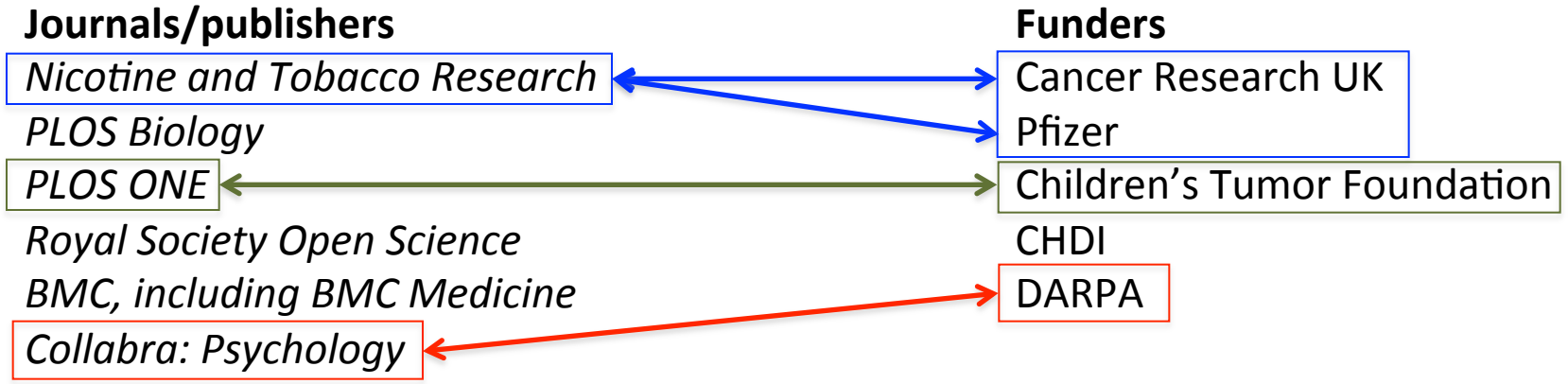
Five advances in development for the future of Registered Reports

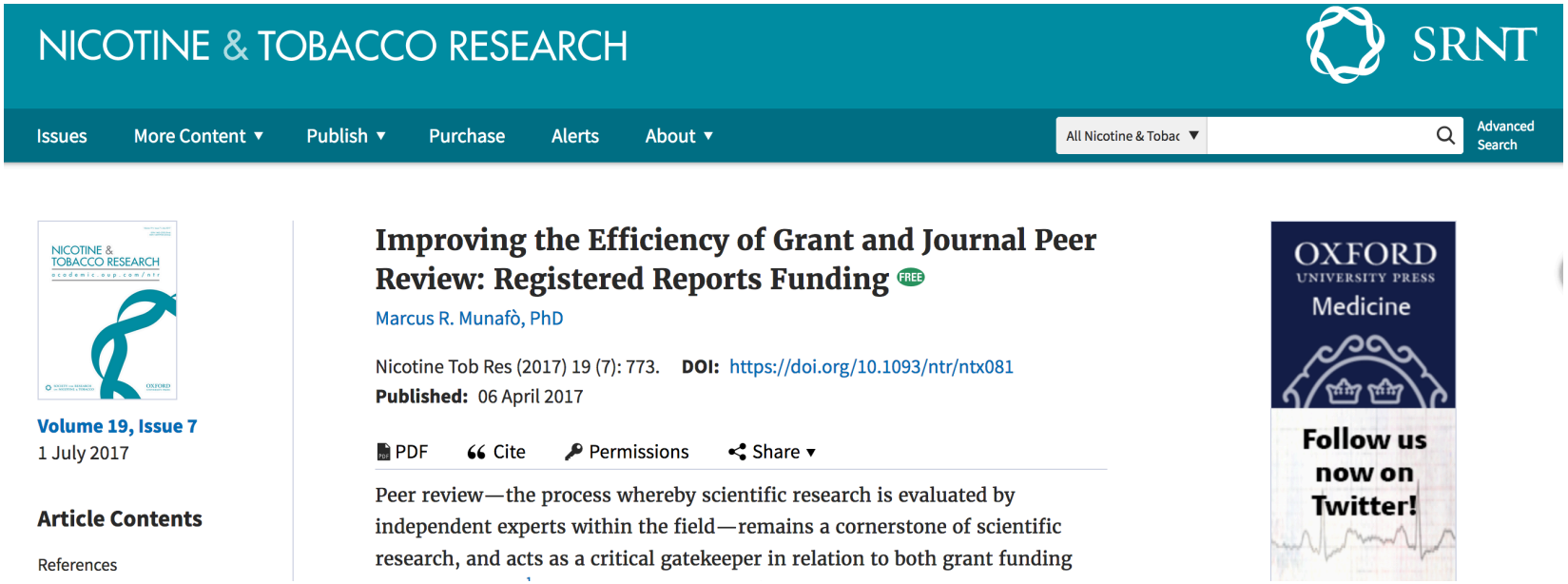
1. Registered Reports Funding Models

- Authors submit their research proposal **before** they have funding

- Following review by the both the **funder and the journal**, proposals are offered financial support by the funder AND in-principle acceptance for publication by the journal

1. Registered Reports Funding Models





https://doi.org/10.1093/ntr/ntx081

2. Variants of Registered Reports: *Accountable Replications*

Concept created by Sanjay Srivastava

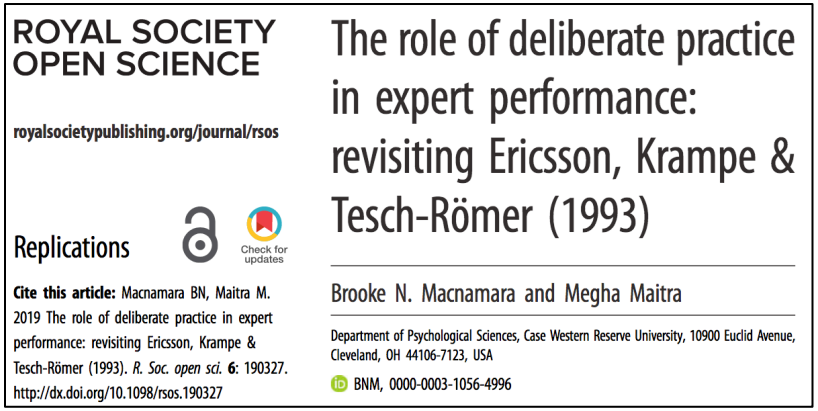
Principle:

- When a journal publishes an empirical study it assumes accountability for the replicability of that study
- Journal guarantees to publish any methodologically sound replication of any study previously published in the journal

- At *Royal Society Open Science* we guarantee to publish any methodologically sound replication of any study published in RSOS or one of dozens of other major journals
- All submissions reviewed **results-blind** – with either results redacted or before results exist

Introductory blogpost:
https://blogs.royalsociety.org/publishing/reproducibility-meets-accountability/
Full journal policy http://rsos.royalsocietypublishing.org/page/replication-studies

2. Variants of Registered Reports: *Accountable Replications*



ROYAL SOCIETY OPEN SCIENCE

royalsocietypublishing.org/journal/rsos

Replications

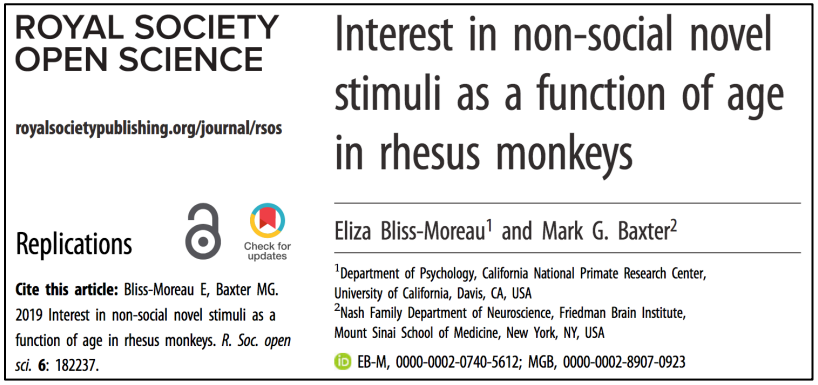
Cite this article: Macnamara BN, Maitra M. 2019 The role of deliberate practice in expert performance: revisiting Ericsson, Krampe & Tesch-Römer (1993). *R. Soc. open sci.* **6**: 190327. http://dx.doi.org/10.1098/rsos.190327

The role of deliberate practice in expert performance: revisiting Ericsson, Krampe & Tesch-Römer (1993)

Brooke N. Macnamara and Megha Maitra

Department of Psychological Sciences, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, OH 44106-7123, USA

BNM, 0000-0003-1056-4996



ROYAL SOCIETY OPEN SCIENCE

royalsocietypublishing.org/journal/rsos

Replications

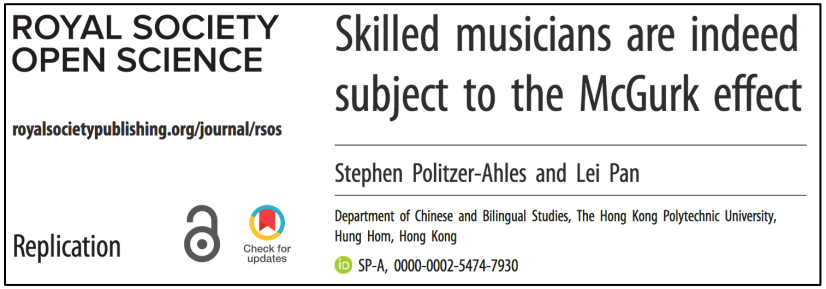
Cite this article: Bliss-Moreau E, Baxter MG. 2019 Interest in non-social novel stimuli as a function of age in rhesus monkeys. *R. Soc. open sci.* **6**: 182237.

Interest in non-social novel stimuli as a function of age in rhesus monkeys

Eliza Bliss-Moreau[1] and Mark G. Baxter[2]

[1]Department of Psychology, California National Primate Research Center, University of California, Davis, CA, USA
[2]Nash Family Department of Neuroscience, Friedman Brain Institute, Mount Sinai School of Medicine, New York, NY, USA

EB-M, 0000-0002-0740-5612; MGB, 0000-0002-8907-0923



ROYAL SOCIETY OPEN SCIENCE

royalsocietypublishing.org/journal/rsos

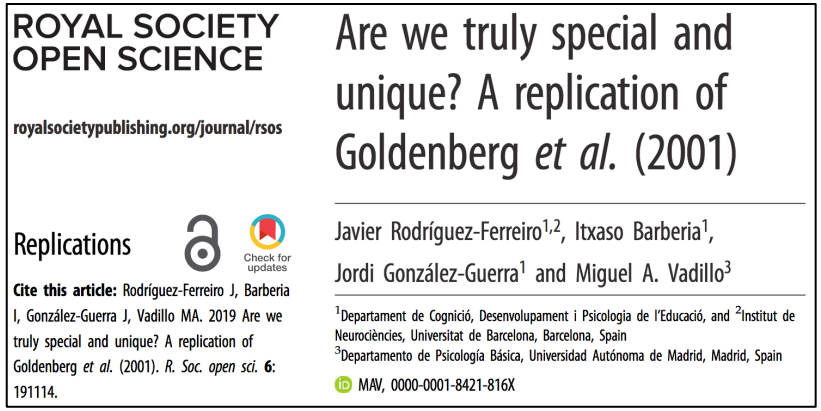
Replication

Skilled musicians are indeed subject to the McGurk effect

Stephen Politzer-Ahles and Lei Pan

Department of Chinese and Bilingual Studies, The Hong Kong Polytechnic University, Hung Hom, Hong Kong

SP-A, 0000-0002-5474-7930



ROYAL SOCIETY OPEN SCIENCE

royalsocietypublishing.org/journal/rsos

Replications

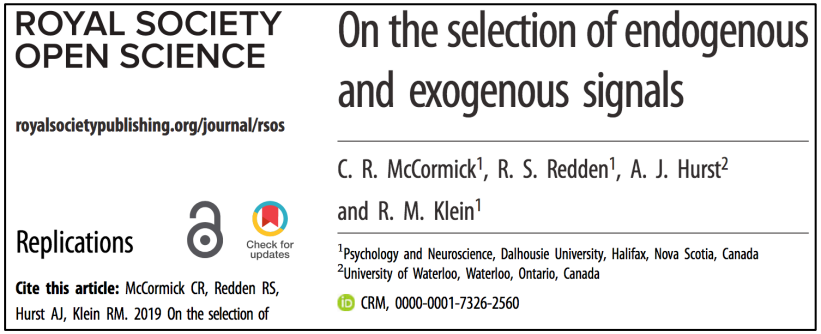
Cite this article: Rodríguez-Ferreiro J, Barberia I, González-Guerra J, Vadillo MA. 2019 Are we truly special and unique? A replication of Goldenberg *et al.* (2001). *R. Soc. open sci.* **6**: 191114.

Are we truly special and unique? A replication of Goldenberg *et al.* (2001)

Javier Rodríguez-Ferreiro[1,2], Itxaso Barberia[1], Jordi González-Guerra[1] and Miguel A. Vadillo[3]

[1]Departament de Cognició, Desenvolupament i Psicologia de l'Educació, and [2]Institut de Neurociències, Universitat de Barcelona, Barcelona, Spain
[3]Departamento de Psicología Básica, Universidad Autónoma de Madrid, Madrid, Spain

MAV, 0000-0001-8421-816X



ROYAL SOCIETY OPEN SCIENCE

royalsocietypublishing.org/journal/rsos

Replications

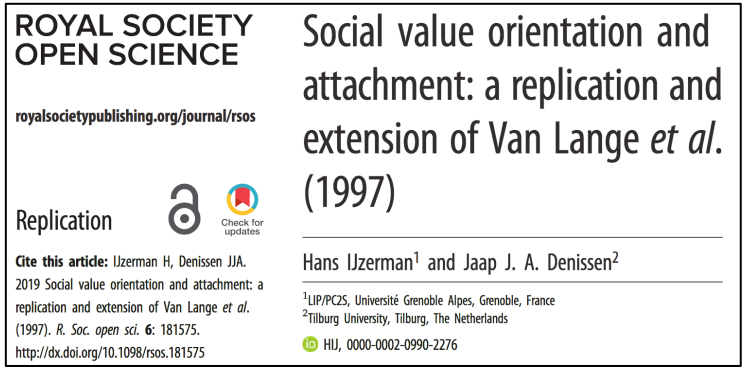
Cite this article: McCormick CR, Redden RS, Hurst AJ, Klein RM. 2019 On the selection of

On the selection of endogenous and exogenous signals

C. R. McCormick[1], R. S. Redden[1], A. J. Hurst[2] and R. M. Klein[1]

[1]Psychology and Neuroscience, Dalhousie University, Halifax, Nova Scotia, Canada
[2]University of Waterloo, Waterloo, Ontario, Canada

CRM, 0000-0001-7326-2560



ROYAL SOCIETY OPEN SCIENCE

royalsocietypublishing.org/journal/rsos

Replication

Cite this article: IJzerman H, Denissen JJA. 2019 Social value orientation and attachment: a replication and extension of Van Lange *et al.* (1997). *R. Soc. open sci.* **6**: 181575. http://dx.doi.org/10.1098/rsos.181575

Social value orientation and attachment: a replication and extension of Van Lange *et al.* (1997)

Hans IJzerman[1] and Jaap J. A. Denissen[2]

[1]LIP/PC2S, Université Grenoble Alpes, Grenoble, France
[2]Tilburg University, Tilburg, The Netherlands

HIJ, 0000-0002-0990-2276

See archive at: https://royalsocietypublishing.org/topic/special-collections/rsos-reproducibility

3. Monitoring implementation and impact

Meta-scientists assemble!

We need to know:

- How Registered Reports differ from regular articles
- Are they working as hoped?
- How to improve and optimise implementation
- Wider impact on the scientific landscape

4. Reinventing the research article itself

17th century manuscript

Registered Reports 1.0

- Written in Word
- Hypotheses are often vague (at least initially)
- Insufficient links between theory, hypotheses, sampling plans, analyses plans, and prospective interpretation

4. Reinventing the research article itself

Standardisation of protocols to maximise computational reproducibility

- **Registered Reports 2.0** → article generated from protocol template and checklist
  - Background and theory
  - Rationale and aims
  - Procedures
  - Hypotheses (stated in terms of specific variables)
    - $H_1 \ldots H_n$ → sampling plan → analysis plan
  - Analysis code verified on simulated data
  - Prospective interpretation (which outcomes will lead to which conclusions?)
  - Results: preregistered
  - Results: exploratory
  - Discussion
    - Synthesis of findings
    - Limitations
    - Implications and Future Directions
    - Conclusion
  - Checklist
  - Data, code, materials (in fully reproducible workspace, e.g. Code Ocean)
- **Standardised article constructed from template**

Degrees of Freedom in Planning, Running, Analyzing, and Reporting Psychological Studies: A Checklist to Avoid *p*-Hacking

Jelte M. Wicherts*, Coosje L. S. Veldkamp, Hilde E. M. Augusteijn, Marjan Bakker, Robbie C. M. van Aert and Marcel A. L. M. van Assen

5. Universal adoption

- Registered Reports offered as an option at **all reputable empirical journals** so that they can be a legitimate career option **for every researcher**

- All clinical trials published as Registered Reports

- While also recognising that Registered Reports are not applicable for all modes of research…

Transparent exploratory research is vital – and it needs a home

Exploratory Reports article type

CORTEX 96 (2017) A1–A4

Available online at www.sciencedirect.com

ScienceDirect

Journal homepage: www.elsevier.com/locate/cortex

Editorial

Exploratory reports: A new article type for *Cortex*

Robert D. McIntosh *

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There are many ways to find things out. In science, the process of discovery can be divided conceptually into exploratory and confirmatory phases. In the exploratory phase, we observe

hypothesis-driven' – the death sentence for many a hopeful submission.

This idealisation of the confirmatory mode creates pressure for published research to conform neatly to the template, even though the reality may be more messy or complex. A preference for positive findings, combined with the expectation that the main results should be predicted *a priori*, incentivise some 'questionable' practices that, whether engaged in consciously or not, seriously distort the scientific record (John, Loewenstein, & Prelec, 2012). High on this list are: p-hacking, whereby analytic flexibility is exploited to probe the data for *p*-values below the threshold for significance, the fruits of this exploration being reported as if from a

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Exploratory Report

Executive function predictors of delayed memory deficits after mild traumatic brain injury

James M. Broadway [a], *Rebecca E. Rieger* [b], *Richard A. Campbell* [c], *Davin K. Quinn* [c], *Andrew R. Mayer* [d], *Ronald A. Yeo* [b], *J. Kevin Wilson* [b], *Darbi Gill* [a], *Violet Fratzke* [b] *and James F. Cavanagh* [b,*]

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De-emphasis on *a priori* hypotheses and p values

Greater emphasis on parameter estimation and hypothesis generation

Editorial
https://www.sciencedirect.com/science/article/pii/S0010945217302393

Guidelines
https://www.elsevier.com/__data/promis_misc/Exploratory_Reports_Guidelines.pdf

See also: https://www.rips-irsp.com/about/exploratory-reports/

INTERNATIONAL REVIEW OF SOCIAL PSYCHOLOGY
REVUE INTERNATIONALE DE PSYCHOLOGIE SOCIALE

Exploratory Reports at IRSP: Guidelines for Authors

Exploratory Reports (ERs) is a format for empirical submissions that tend to address relatively open research questions, without strong a priori predictions of hypotheses.

Suggested next steps

1. For quantitative researchers: learn how to construct a Registered Report using this template: https://osf.io/93znh/

If you can answer these TEN questions you will have built the engine of a Stage 1 Registered Report

1) What is the main question being addressed in your study?
- *Why is it important that we answer this question? What's the big picture?*

2) Describe the key independent and dependent variable(s), specifying how they will be measured.
- *Ensure that they are defined precisely*

3) What are your hypotheses?
- *Ensure that your predictions are defined precisely in terms of the specific IVs and DVs*
- *Listing them as H0, H1, H2….Hn is recommended*

4) How many and which conditions will participants/samples be assigned to?
- *Where applicable be sure to include details of randomisation, blinding and counterbalancing. Make it clear whether the design is within-subjects, between-subjects, mixed, or other.*

5) How many observations will be collected and what rule will you use to terminate data collection?
- *Ensure that your stopping rule takes into account any data exclusions.*
- *If adopting null hypothesis significance testing, what power will your study achieve? What effect size will you target and why? Remember that you are choosing the smallest effect size of theoretical or applied interest, or the smallest you can feasibly detect. For an actual RR you can use pilot data to help motivate this estimate, but you shouldn't rely on pilot data alone because it is vulnerable to bias.*
- *If adopting Bayesian sampling methods, what is your prior? And what is your criterion Bayes factor for asserting relative support of H0 or H1, or your maximum resource limit?*

6) What are your study inclusion criteria?
- *How will participants/samples be recruited/included and under what specific rules?*

7) What are your data exclusion criteria?
- *State rules for excluding data both at the level of samples/participants (within groups) and at the level of raw data (within samples/participants), e.g. conditions involving data quality, completeness and outliers.*
- *Remember to be comprehensive: exclusion criteria are very difficult to change after data collection has commenced because doing so risks introducing bias. Think about previous experiments you have done and all the reasons you have ever thrown out a data set or data point.*

8) What positive controls or quality checks will confirm that the obtained results are able to provide a fair test of the stated hypothesis?
- ***WHAT'S THIS?** A positive control tests the existence of phenomena that would confirm that the IV, DV or instrumentation was used correctly and is therefore capable of testing the main study predictions. One of the most famous positive control experiments was the use of the Galileo spacecraft to test for the existence of life on Earth. If the instrumentation on the probe couldn't detect life on Earth (i.e. had the positive control failed), then it would not be reasonable to use to the probe to test the hypothesis that life existed on other planets.*
- *Not all experimental designs have suitable positive controls. Where a positive control isn't possible, think of what quality checks or verifications you would build into your design **before results are known** to convince a skeptic that you had conducted the experiment to a sufficient standard (e.g. noise within certain limits etc.). Make sure these are independent of your main hypothesis tests.*
- *Where a positive control (e.g. manipulation check) or quality check (e.g. lack of floor or ceiling effects in data) requires a statistical test, ensure that the test is adequately powered or sampled.*

9) Specify exactly which analyses you will conduct to examine the main question/hypothesis(es)
- *Ensure that there is an **exact** correspondence between each scientific hypothesis and each statistical test. Failure to precisely specify these links is one of the main reasons RRs are rejected.*
- *If your analysis strategy will depend on the results (e.g. normal vs. non-normal distribution) then specify the contingencies for making different choices, i.e. IF-THEN statements.*
- *In the event of a negative result, would you be happy to conclude that there "was no evidence of a difference" between conditions, or would you instead want to be able to make the stronger claim that "there is evidence of no difference between conditions"? The first inference is limited to absence of evidence while the second (stronger) one refers to evidence of absence. If you want to make the stronger inference, you will need Bayesian inferential methods or frequentist equivalence testing.*
- *Complete the design planner below to make the links absolutely clear between the research question (or questions), hypothesis (or hypotheses), sampling plans, analysis plans, and contingent interpretation*

Question	Hypothesis	Sampling plan (e.g. power analysis)	Analysis Plan	Interpretation given different outcomes

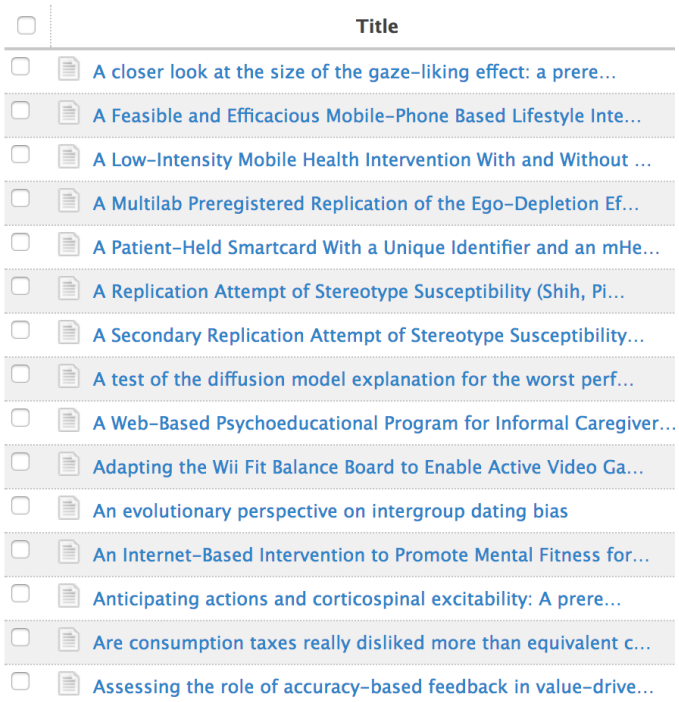
10) Are you proposing to collect new data or analyse existing data?
- *If the proposal involves existing data, what steps will you take to ensure that your analysis plan isn't biased by any prior observation you have had of the data?*

***You might be wondering:** why is there no section for specifying exploratory analyses? That's because for RRs we usually don't allow authors to specify exploratory analyses in Stage 1 submissions. A central strength of the RR format is the unequivocal distinction it draws between confirmatory pre-registered analyses and exploratory unregistered analyses. Pre-specifying (usually vague) plans for exploratory analyses blurs this separation. Any analysis that can be precisely planned should be specified as confirmatory at Stage 1, even if a secondary hypothesis. And any analysis that can't be precisely planned should be withheld until Stage 2, where it is then introduced and comprehensively reported in the Exploratory Analyses section of the Results.*

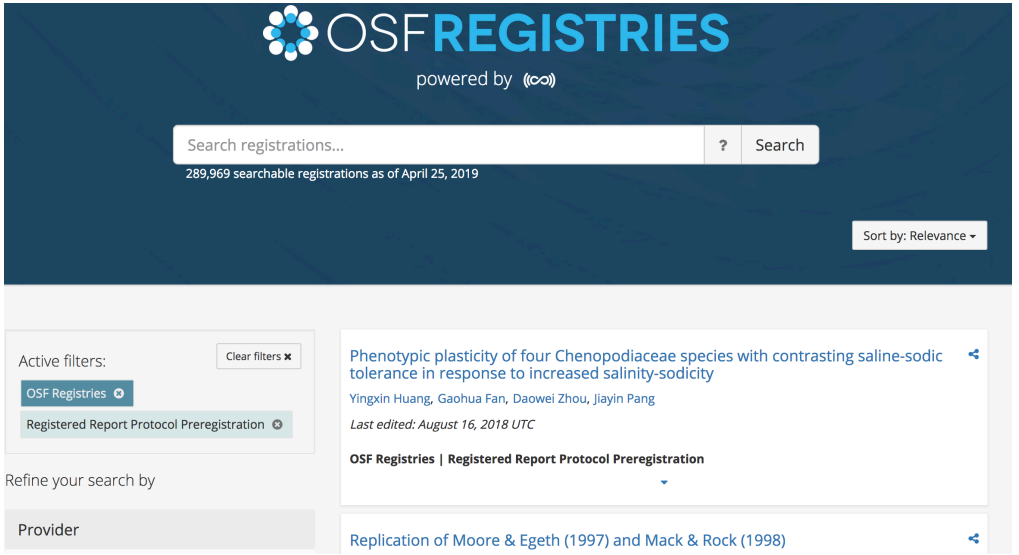
Suggested next steps

2. Check out the Zotero database for completed examples of Stage 2 Registered Reports, and the the OSF archive of registered Stage 1 protocols

zotero



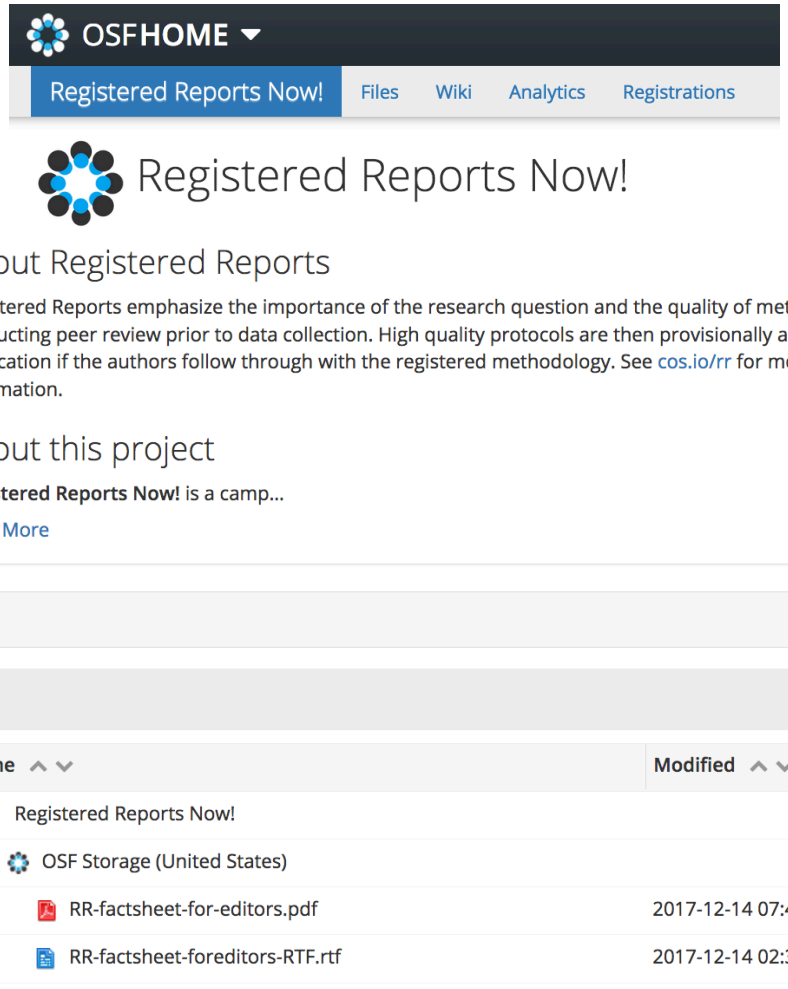
https://www.zotero.org/groups/479248/osf/items/collectionKey/KEJP68G9?



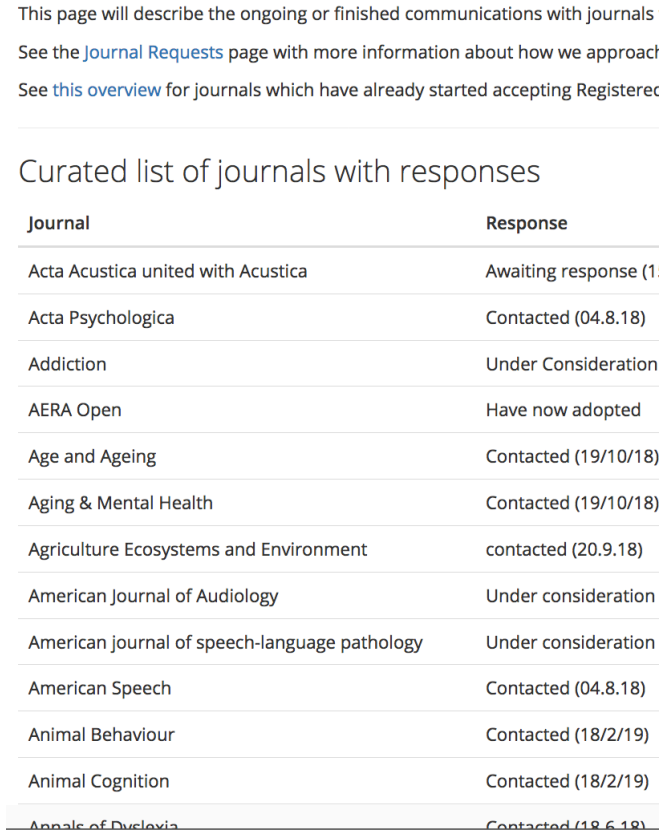
https://osf.io/registries/discover?provider=OSF&type=Registered%20Report%20Protocol%20Preregistration

Suggested next steps

3. Lobby for reform – if your journal of choice doesn't yet offer RRs then ask the editor



"RR Now" site has template letters to editors that you can use/modify/send

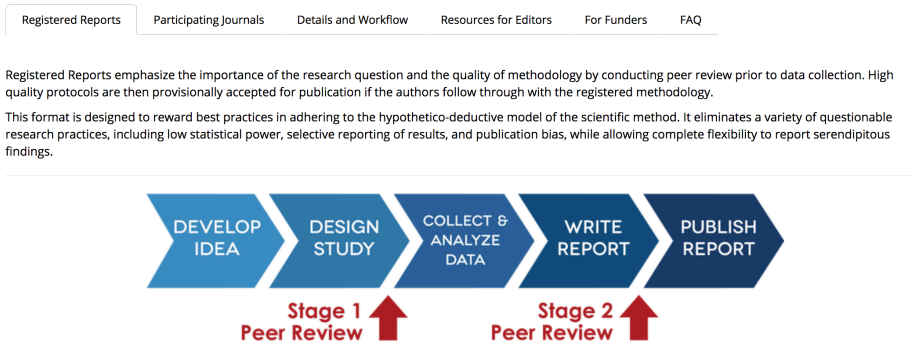


https://osf.io/3wct2/

Public list of journals and responses

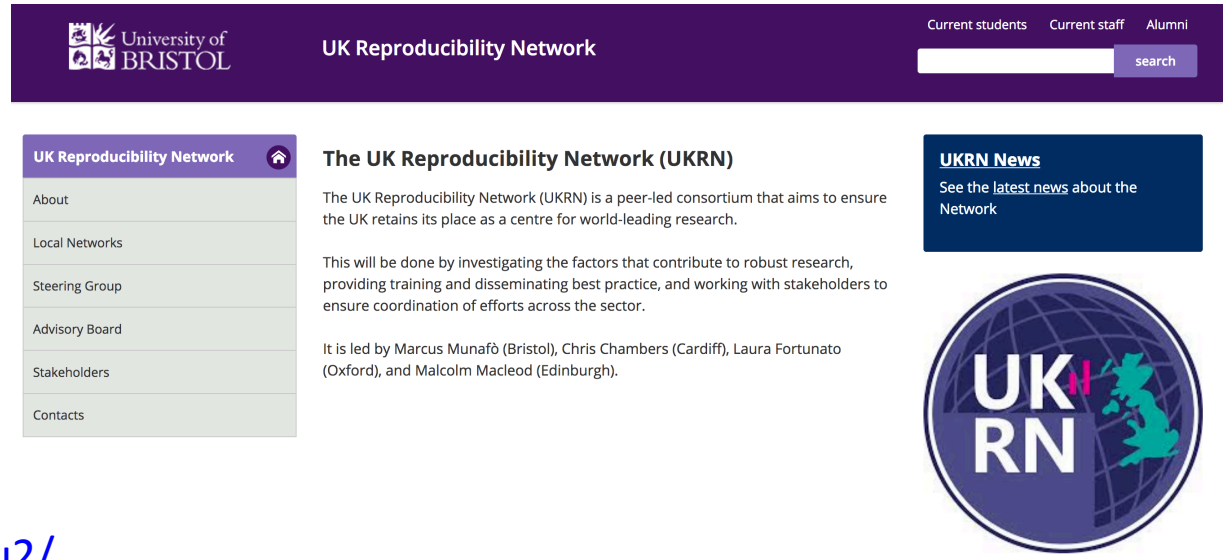
Information Hub at the Center for Open Science

- Detailed FAQs
- Table comparing journal features
- Resources for authors, editors, funders



https://cos.io/rr/

http://www.ukrn.org



These slides: https://osf.io/h5du2/

For more info: chambersc1@cardiff.ac.uk or ukrn-admin@bristol.ac.uk

UK Reproducibility Network

Key Initiatives

- *Open Research Working Groups at UK universities*: https://osf.io/vgt3x/
- *ReproducibiliTea* https://osf.io/3qrj6/wiki/home/
- *Open Research and Reproducibility Short Course*
- *Hiring Policies Certification Scheme*: https://osf.io/qb7zm/
- *Laboratory Efficiency Assessment Framework (LEAF)*
- *Consortium-Based Student Projects*
- *Primers on Open Research Practices*
- *Ensuring teaching curricula include training in reproducibility and transparency*

Registered Reports: a format of research article currently offered by >200 academic journals in which study protocols are peer reviewed and the completed research accepted in advance of the results (see https://cos.io/rr/).

Registered Reports Funding: a form of research funding in which funders and journals coordinate to review and accept detailed Registered Reports protocols (see For Funders at https://cos.io/rr/).

Accountable Replication Policies: an initiative whereby journals commit to publishing any close and valid replication of any study published in the same journal (see https://blogs.royalsociety.org/publishing/reproducibility-meets-accountability/).

Editors4BetterResearch: an initiative in which journal editors publicly state their degree of commitment to upholding a variety of practices in support of open and reproducible research (see https://osf.io/u8rks/).

ECR Fellowship Track Programme: an initiative to create a dedicated and fully supported career trajectory for early career researchers who seek to embed open research practices in their work (see https://osf.io/gr2n8/).