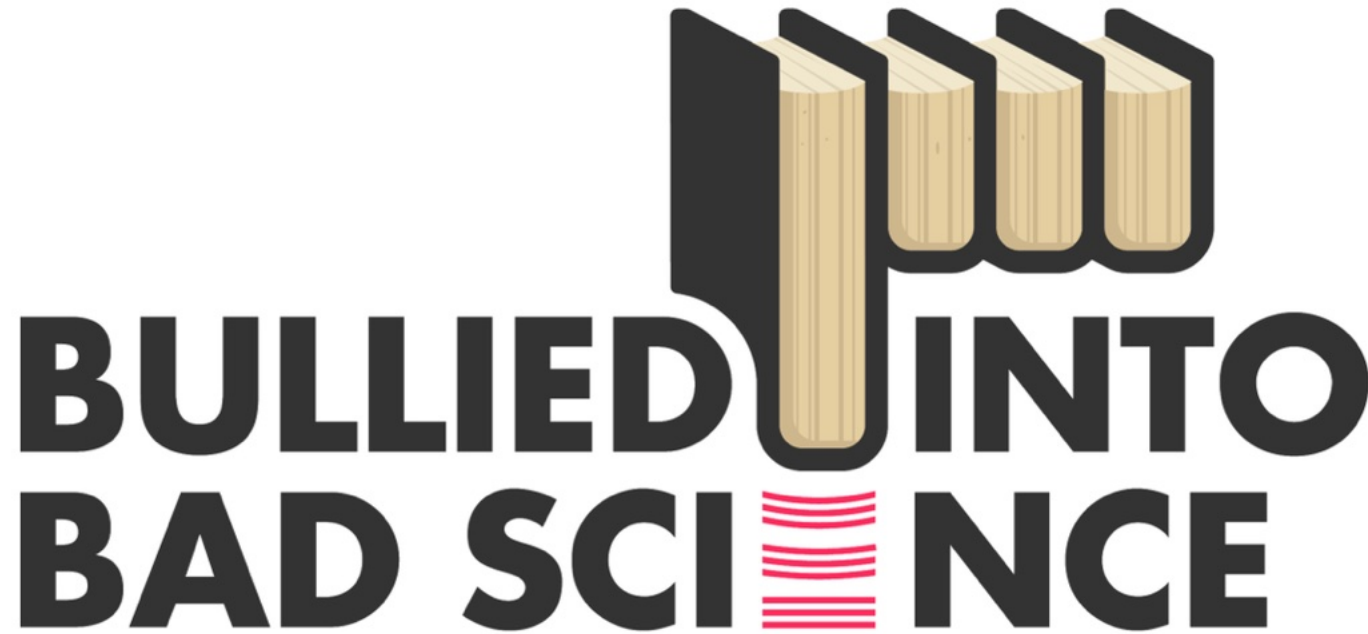


We won't be...



Dr. Corina Logan

Max Planck Institute

for Evolutionary Anthropology

corina_logan@eva.mpg.de | @LoganCorina

**Dr. Laurent Gatto, Dr. Ross Mounce, Dr. Stephen
Eglen, Dr. Adrian Currie, Dr. Lauren Maggio**

www.BulliedIntoBadScience.org

Slides CC-BY-SA 4.0 at osf.io/sy9f7/

We won't be...



Corina Logan & Laurent Gatto



Leading individuals and
institutions in adopting open
practices to improve research rigor

ECRs often feel **pressured** into taking actions
against our ethics to pursue an academic career
(e.g., publishing in particular journals)

People who are not bullied are able to:
READ, UNDERSTAND, and VERIFY research
GENERATE and DISSEMINATE research

www.BulliedIntoBadScience.org

How BIBS started...

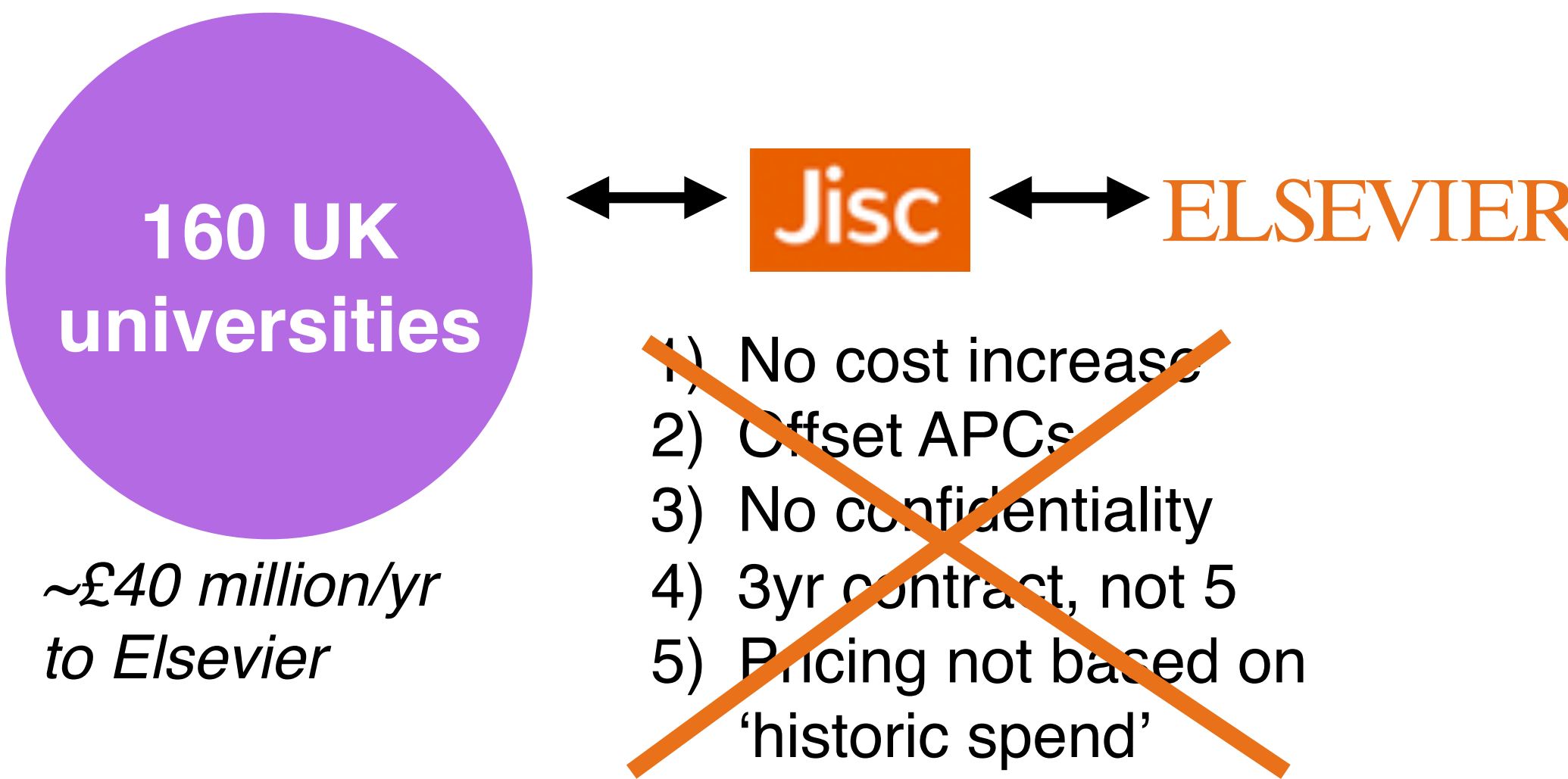
Many ECRs at Cambridge felt pressured into publishing in particular journals and not to use open practices

We met and strategized at...



How BIBS started...

December 2016: University of Cambridge signed a 5yr **Elsevier contract** despite researcher opposition



160 UK
universities

*~£40 million/yr
to Elsevier*

Jisc

ELSEVIER

- 1) No cost increase
- 2) Offset APCs
- 3) No confidentiality
- 4) 3yr contract, not 5
- 5) Pricing not based on
'historic spend'

How BIBS started...

Rampage formed

Stephen Eglen
Maths



Peter Murray Rust
Chemistry



Tim Gowers
Maths

Yvonne Nobis
Betty & Gordon
Moore Library



Laurent Gatto
Biochemistry



Rupert Gatti
Economics



Photos © University of Cambridge

Our efforts to change Cambridge failed

Need to put pressure on decision makers
and
change our behavior as researchers

**BULLIED INTO
BAD SCIENCE**

How BIBS works to change behavior

- ECRs: Sign the **petition** to help us change academic culture
- Non-ECRs: Join the list of **supporters** by valuing open practices, especially when making decisions about hiring, promotion, and grants
- Submitted written evidence to the *UK Parliament Science and Technology Committee* inquiry on Research Integrity



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[House of Commons](#) [House of Lords](#) [What's on](#) [Bills & legislation](#) [Committees](#) [Publications](#)

You are here: [Parliament home page](#) > [Parliamentary business](#) > [Committees](#) > [All committees A-Z](#) > [Commons Select \(Commons\)](#) > [Inquiries](#) > [Parliament 2017](#) > [Research integrity](#)

Committees

All committees A-Z

Commons Select

Science and Technology Committee (Commons)

Science and Technology Committee (Commons)

Research integrity

Inquiry status: **concluded**

[parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/inquiries/parliament-2017/research-integrity-17-19/](https://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/inquiries/parliament-2017/research-integrity-17-19/)

BIBS principles



People who are not bullied are able to:

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GENERATE and DISSEMINATE research

- Perception of prestige vs. Tackle implicit biases
- Select based on metrics vs. Access to opportunity
- Wealth vs. Ability

What can we do?

Researchers:

Connect the costs of publishing with our publishing choices

Change our behavior to stop exploiting ourselves and discriminating against other researchers and the public

...because all of the options we need exist **right now**

Exploitative route



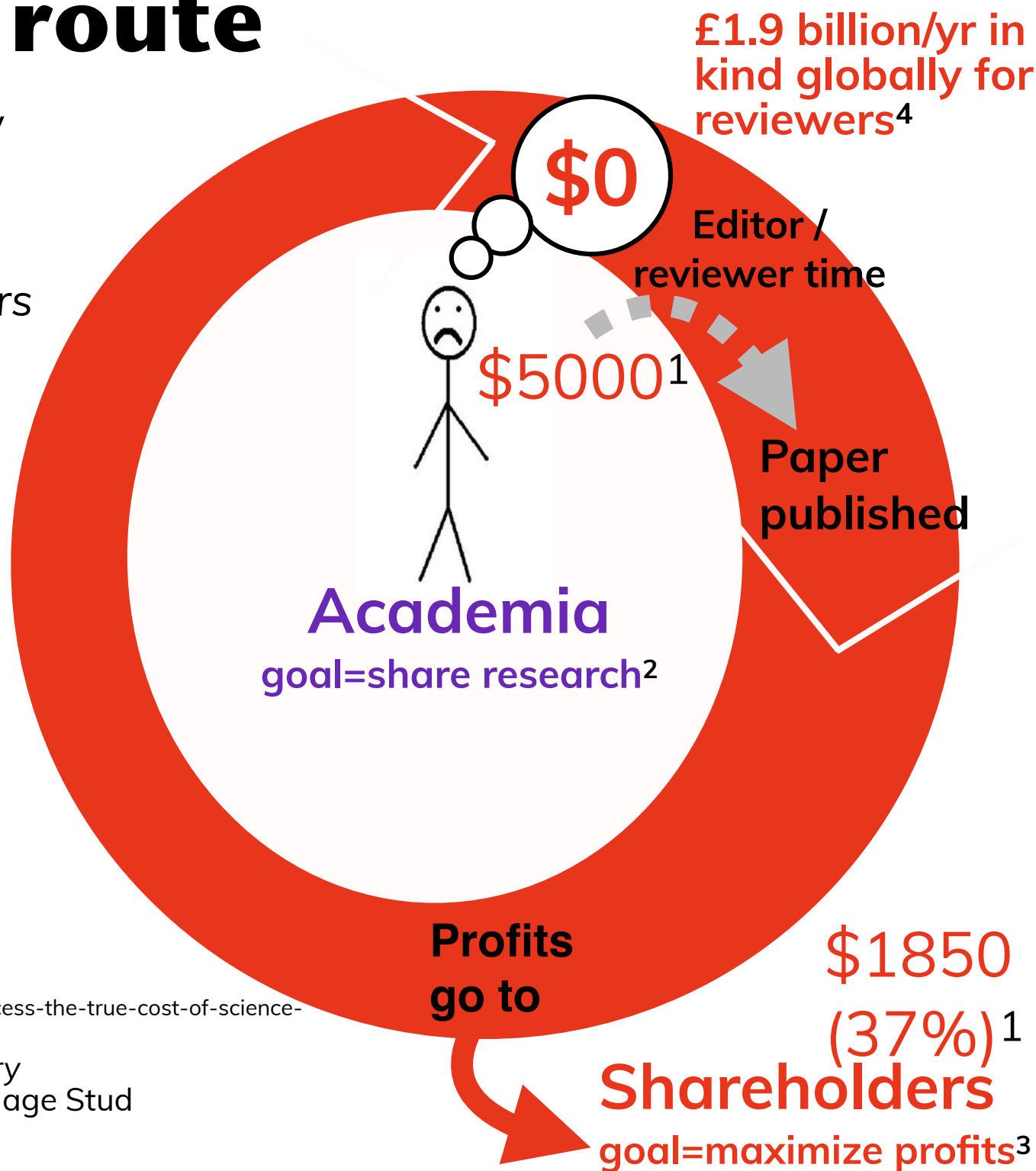
¹Van Noorden 2013 [nature.com/news/open-access-the-true-cost-of-science-publishing-1.12676](https://www.nature.com/news/open-access-the-true-cost-of-science-publishing-1.12676)

²Nosek & Bar-Anan 2012 *J Psych Inquiry*
Logan 2017 F1000Research

Exploitative route

Academics perform quality control at no cost to publishers

What services do publishers actually provide?



¹Van Noorden 2013 nature.com/news/open-access-the-true-cost-of-science-publishing-1.12676

²Nosek & Bar-Anan 2012 *J Psych Inquiry*

³Husted & de Jesus Salazar 2006 *J Manage Stud*

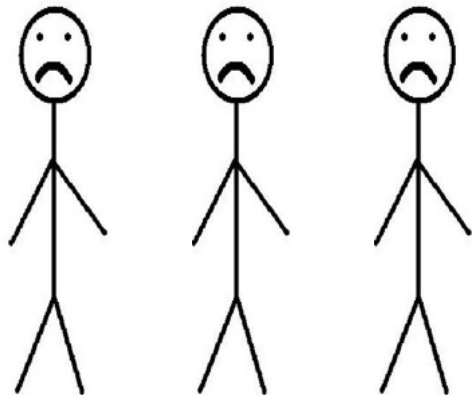
⁴Research Information Network 2008

Logan 2017 F1000Research

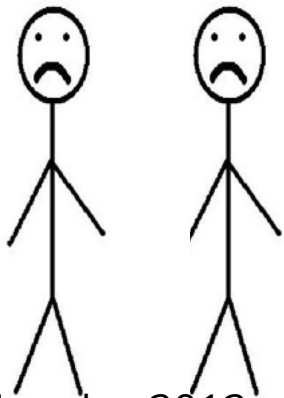
Exploitative route

**Indirect
discrimination**

Patient MD Public



Other
researchers



Public
funds
research

PAYWALL

\$0

£1.9 billion/yr in
kind globally for
reviewers⁴

Editor /
reviewer time

\$5000¹

Paper
published

Academia

goal=share research²

Available
to read by
scholarly
rich



Profits
go to

**\$1850
(37%)¹**

Shareholders
goal=maximize profits³

¹Van Noorden 2013 nature.com/news/open-access-the-true-cost-of-science-publishing-1.12676, ²Nosek & Bar-Anan 2012 *J Psych Inquiry*, ³Husted & de Jesus Salazar 2006 *J Manage Stud*, ⁴Research Information Network 2008, Murray-Rust 2011 blogs.ch.cam.ac.uk/pmr/2011/10/05/the-scholarly-poor-dentists/, Tennant et al. 2016 *F1000Research*, Logan 2017 *F1000Research*

The ethical framework

- 1) **Researchers** and **publishers** have a **responsibility to the public** to provide them with **free access to publicly funded products**, which are a common good^{1,2}
- 2) **Publishers** of research products have a **responsibility to researchers** to value the generation and packaging of knowledge³
- 3) **Researchers** have a **responsibility to the public to conduct rigorous research** because it will serve as the foundation for the advancement of discoveries, it provides the best value for money, and earns public trust⁴

¹Stilgoe et al. 2013 *Res Policy*

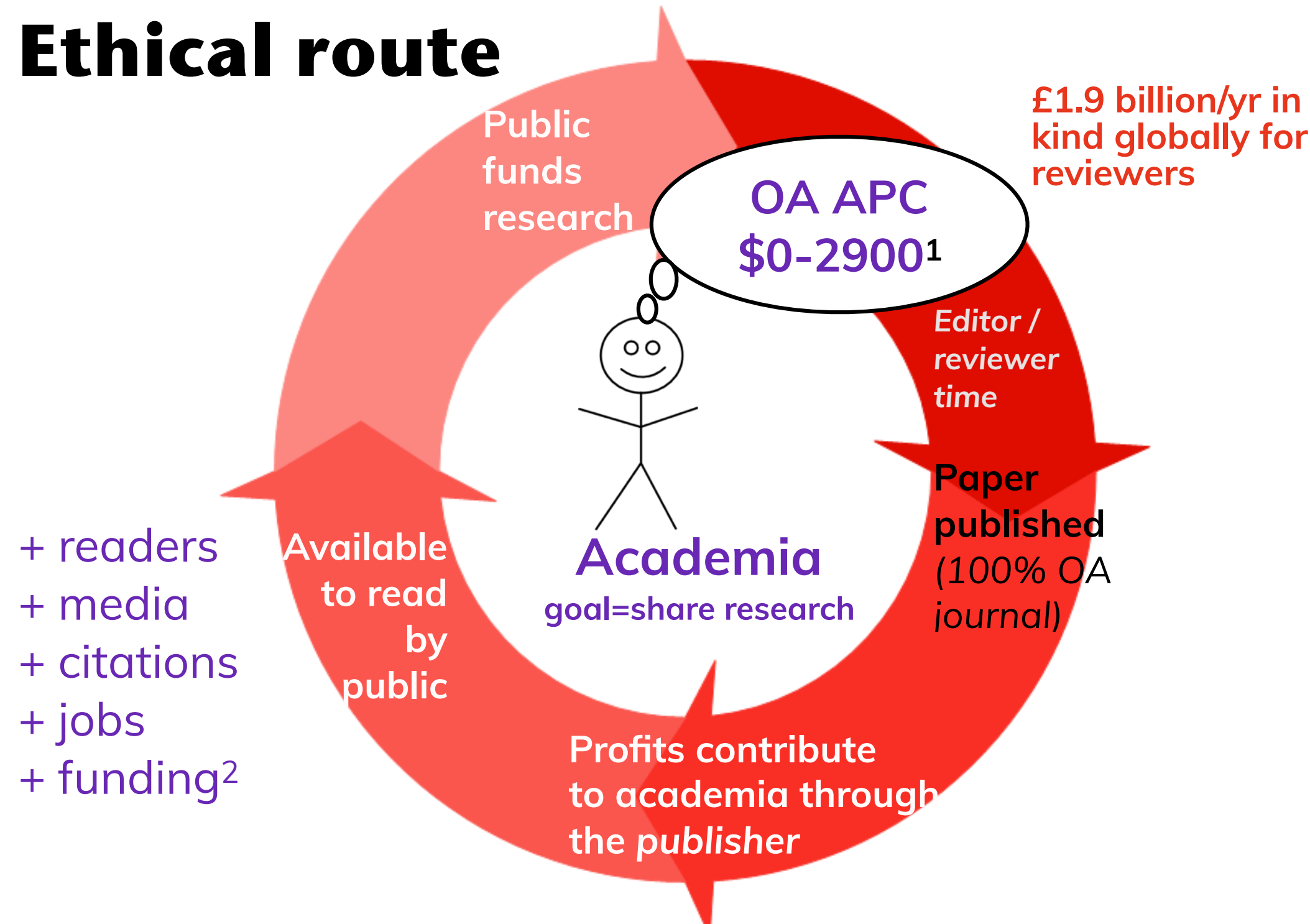
²Woodward 1990 *Library Trends*

³Fuchs & Sandoval 2013 *TripleC: Communication, Capitalism & Critique*

⁴Nosek & Bar-Anan 2012 *J Psych Inquiry*

Logan 2017 F1000Research

Ethical route



¹SPARC <http://sparceurope.org/oaca/>, ²McKiernan et al. 2016 eLife, Tennant et al. 2016 F1000Research, Logan 2017 F1000Research

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Prestige blocks knowledge generation in scholarly publishing

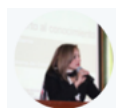
Open Global South conference 2017 UC Davis Library & UC Law¹



Rachael G. S.
@rach_scholcomm

Follow

#OpenGlobalSouth Do we agree on "access"? i.e. Who gets to read (access to scholarship) v. who gets to publish (access to publishing system)



Arianna Becerril @ariannabec · 25 May 2017

Two different models, hey latin people we're doing good in #OpenAccess
#OpenGlobalSouth #DangerousAPC amp.theguardian.com/higher-educati...

2017

Two different OA models



¹<https://livestream.com/UCDavis/OpenDigitalSouth2017/videos/157043119>
<https://twitter.com/ariannabec/status/867808894613020672>
https://twitter.com/rach_scholcomm/status/867889362070941696

Barriers to accessing knowledge

Only people like ourselves can access the knowledge we generate: English-speaking academics at wealthy universities^{1,2}

This **blocks progress** in research and applications

Increasing diversity in research and researchers can help address this limitation

One way to increase diversity...
<https://opensciencemooc.eu>



Mar Candela
@marcandela77

Follow

Elsevier continues to be among the biggest barriers towards public access to research, preventing its use as a fundamental right for education & advancement of our society-
#DemocratiseKnowledge bit.ly/2DAxW2n



¹Amano & Sutherland 2013 *Proceedings B*, ²Amano et al. 2016 *PLOS Biology*, <https://blogs.scientificamerican.com/voices/diversity-in-stem-what-it-is-and-why-it-matters/>, <https://twitter.com/marcandela77/status/1062278950607638528?s=09>

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How BIBS works with others to change behavior

Data Champion at the University of Cambridge:
Laurent Gatto

Advised on how to handle data; supported Findable, Accessible, Interoperable, and Reusable (FAIR) practices¹



Publishing data = 9-50% more citations²

¹<https://lgatto.github.io/engage-RDM-2017/>, ²McKiernan et al. 2016 eLife

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How BIBS works with others to change behavior

Managing board member: Corina Logan (& Dieter Lukas)

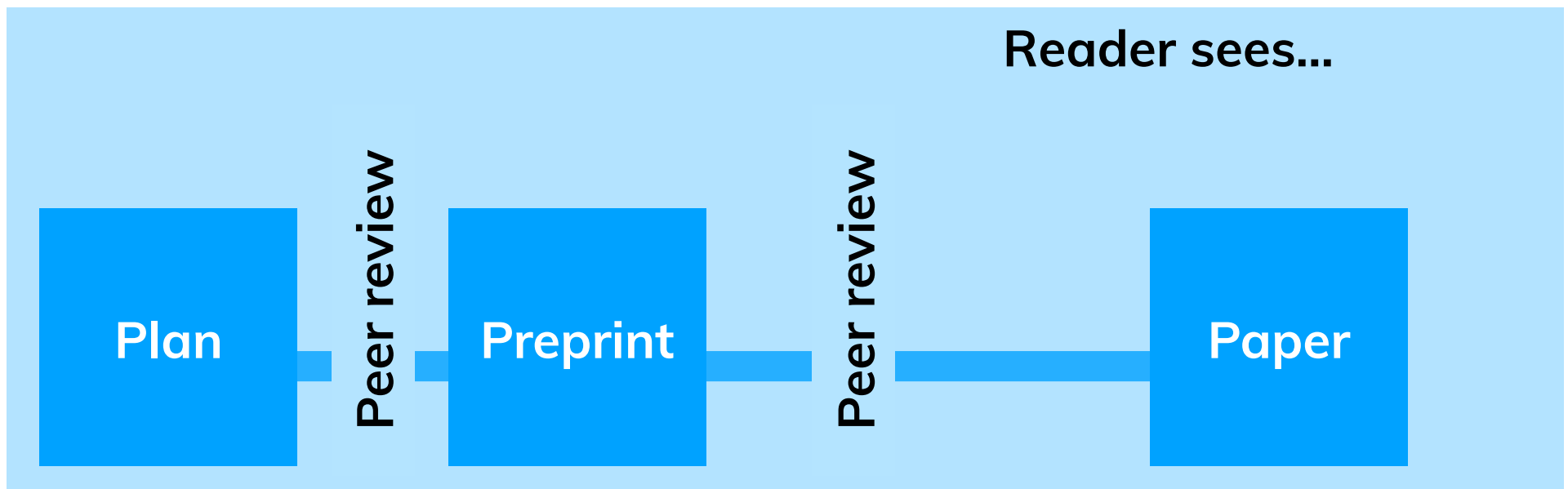
Implemented peer review of preregistrations



Peer Community In
Ecology

Free and transparent preprint and postprint
recommendations in ecology

Prevents wasting resources by improving research before it begins, allows quality checking



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How BIBS works with others to change behavior

Editors4BetterResearch with Chris Chambers & Brad Wyble

Together with [@LoganCorina](#) and [@bradpwyble](#) we are soon launching a new initiative called Editors4BetterResearch to help identify journal editors who support reproducible open practices.

...to create a public database of journal editors who commit to valuing and upholding open research practices. Signatories to the database can choose which of a series of values or open practices that all else being equal, research that is open and reproducible as a priority. The database will also be used to monitor the impact of open practices among the editorial community, providing a means to assess when their respective journal policies fall short of such commitments, and a means to request to handle their submissions when submitting to specific journals. We are all very new journal, and the lack of detail on open practices in many journal policies, as far information about how they make editorial decisions.

...database, editors indicate whether they agree with a series of related values and commit to upholding them. Signatories to the database can choose which of a series of values or open practices that all else being equal, research that is open and reproducible as a priority. The database will also be used to monitor the impact of open practices among the editorial community, providing a means to assess when their respective journal policies fall short of such commitments, and a means to request to handle their submissions when submitting to specific journals. We are all very new journal, and the lack of detail on open practices in many journal policies, as far information about how they make editorial decisions.

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Editors4BetterResearch initiative

Editors4BetterResearch initiative 1. Purpose: The aim of this initiative is to create a public database of journal editors who commit to valuing and upholding open a...

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Developing best practices:

Making my lab transparent and open

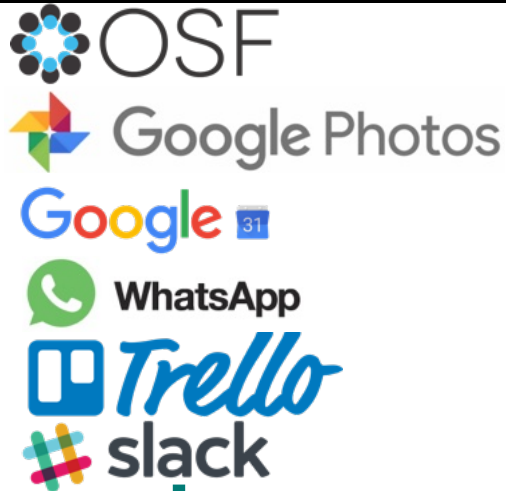
- All studies **preregistered** (GitHub) and **peer reviewed** (PCI Ecology) before data collection begins
- Final results published in 100% OA journals at ethical publishers - data & R code published as well
- Automating the workflow

Being open & transparent saves time & improves research

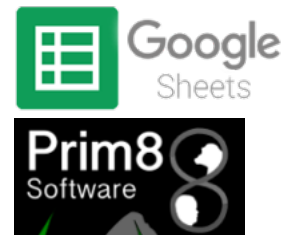
THE
GRACKLE
PROJECT



Coordinate team



Collect data
on laptops



Prereg → Preprint



Peer review #2



Hypotheses

Papers

Preregister



3D print & laser cut
apparatuses



Code experiments



Back up data



Peer review #1



All programs = free to use

Developing best practices: Making my lab transparent and open

Essential requirements in **job adverts**¹:

- require evidence/willingness to engage in open practices

Chris Chambers (Cardiff)
& Felix Schönbrodt (LMU)

Level 0 = no commitment
to open research

Level 3 = only those with
proven track record of
open practices are
interviewed/hired



Chris Chambers ✓
@chrisdc77

Following

We're developing a scheme to promote
#openscience in hiring policies.
@nicebread303 & I need your feedback
please!



Open Hiring Policy - Modular Certification Initiative

Open Hiring Practices: Modular Certification Initiative Summary
and aims: One potentially powerful way to normalise open
scientific practices is to explicitly value them in hiring policies ...

docs.google.com

twitter.com/chrisdc77/status/871733428433104897, 1osf.io/afwre/ & jobs.zeit.de/jobs/muenchen_professur_w3_fuer_sozialpsychologie_121431.html

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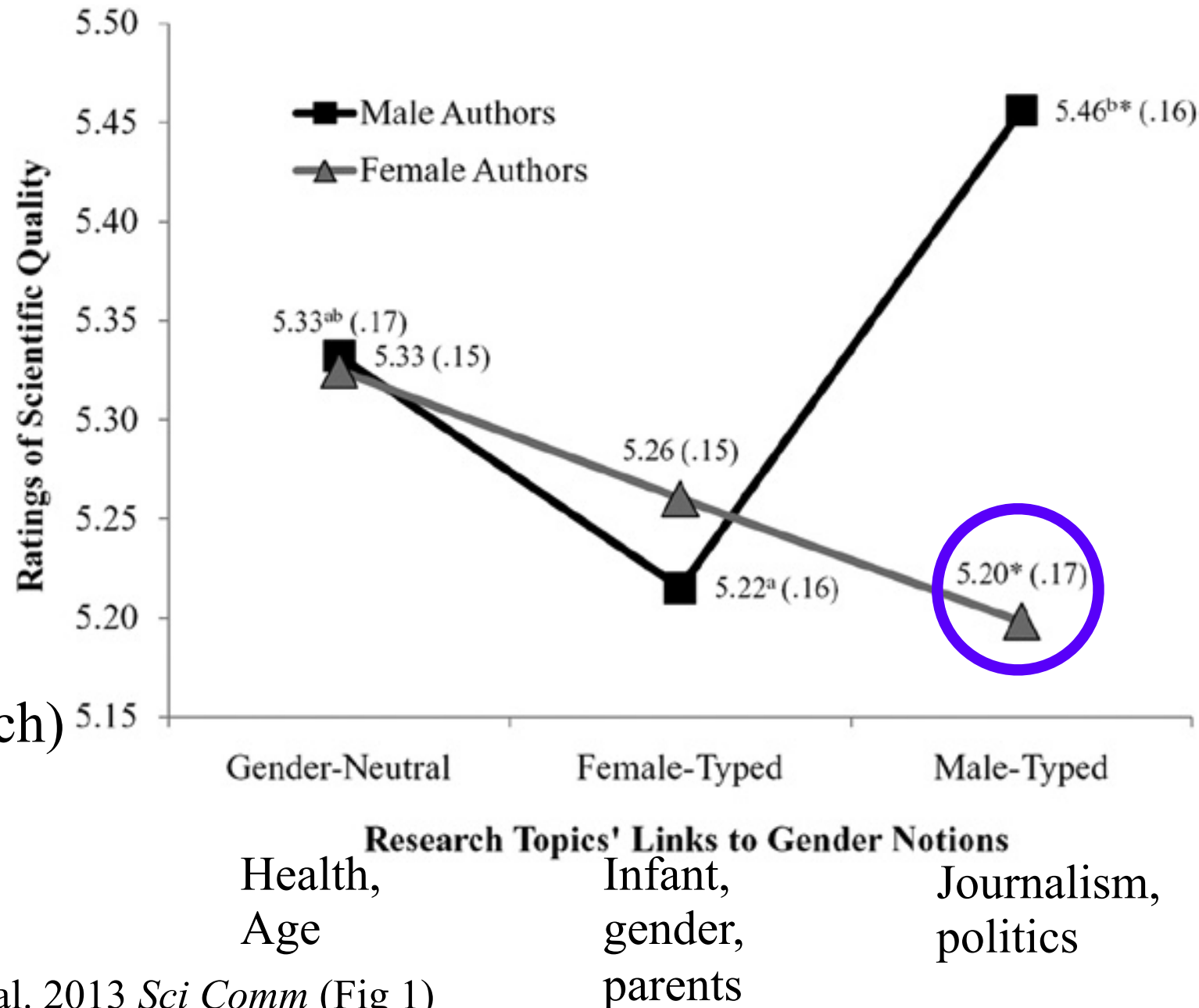
- require evidence/willingness to engage in open practices
- **assess research quality directly (DORA¹)**
- **must be good role models for groups traditionally underrepresented in STEM**

...because **metrics** can be gamed and are more a **sign of privilege** than quality

For example, women are less likely to be first authors of papers in journals with high impact factors²

¹<https://sfdora.org>, ²Filardo et al. 2016 BMJ

Implicit biases block assessment of quality: Women's research **rated lower quality**



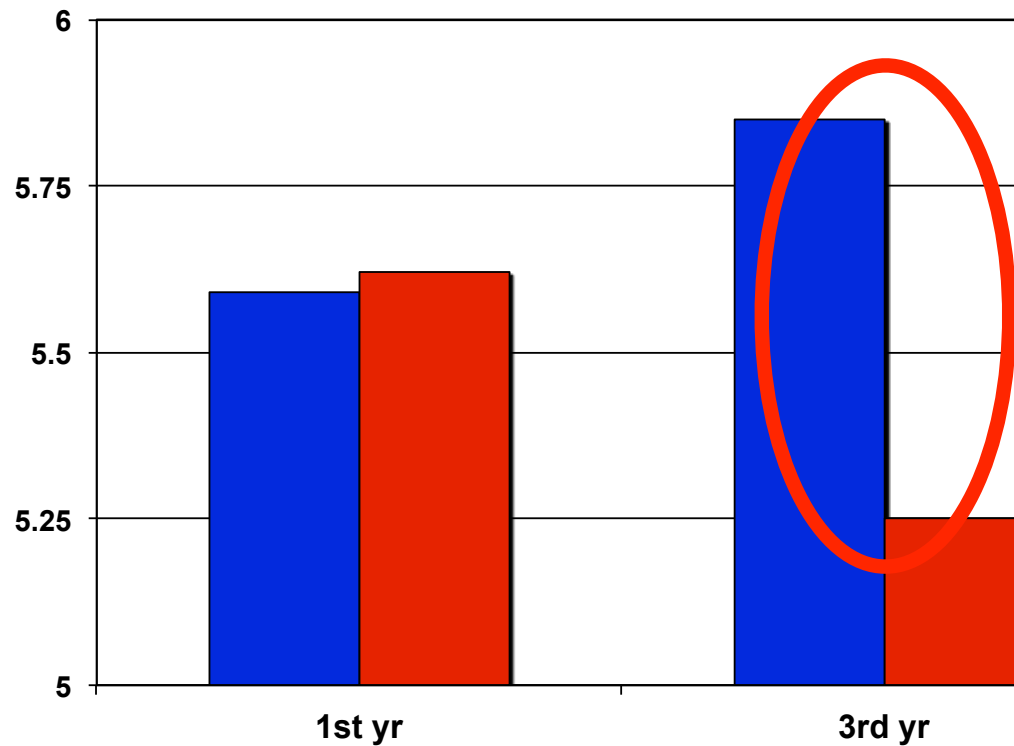
Risk taking
(publishing research)
is **more costly for women**
(lower payoff)

Knobloch-Westerwick et al. 2013 *Sci Comm* (Fig 1)

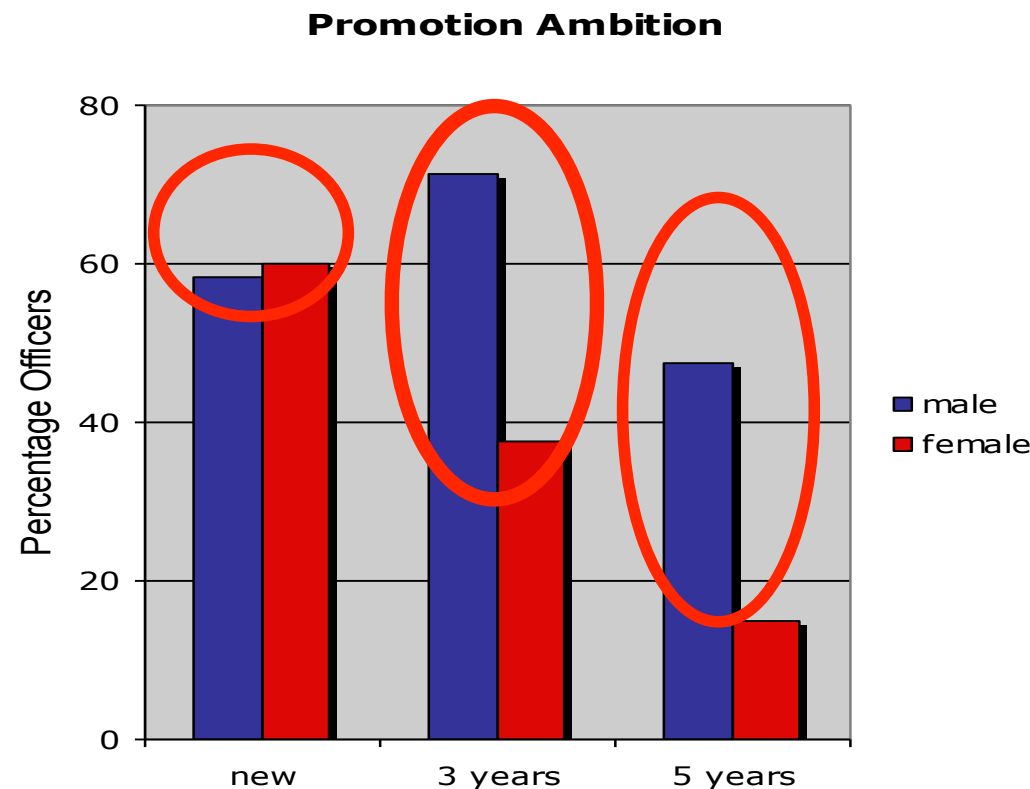
Women are **NOT** more risk averse than men

Differences in Ambition?

Surgeons



The Police service



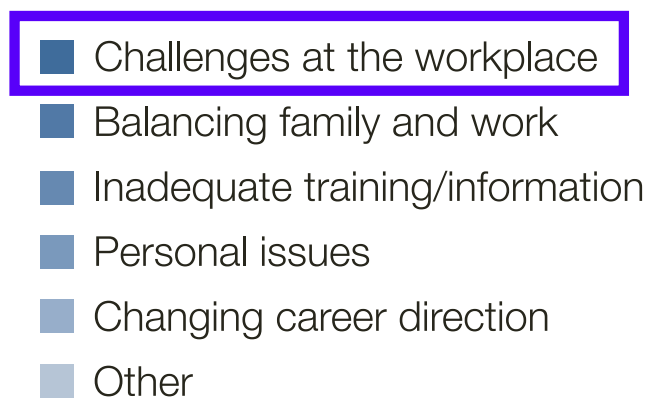
Women are **NOT** more risk averse than men

Women are less likely to take risks

(apply, interview, do research, ask for promotion, etc.)

because they are **less likely to receive a reward** for such efforts

“the underrepresentation of women at the top in terms of voluntary decisions not to pursue leadership may be a **strategic response** to discrimination” (Ryan et al. 2007 *Soc Pers Psych Compass*, p. 267)



*Non-supportive
workplace culture*

n=954 female alumna of
Murray Edwards College 2014

Tackling implicit biases:

changing my behavior

My biases

- **Discover** your implicit biases:
<https://implicit.harvard.edu>
- Gender language **calculator**
<http://gender-decoder.katmatfield.com/about>, use “they”
- Talking time **calculator**
<http://arentalkingtoomuch.com>
- See someone who doesn't look like you? **Retrain your brain** - label them: medical doctor, professor, something prestigious
- Consider the **evidence** before judging a top woman harshly
- Ensure **50% female speakers + other URM**s in seminars/conferences (need to see role models). ALWAYS well qualified women - stop and think



Request a woman scientist
500womenscientists.org

Prestige blocks knowledge generation in scholarly publishing



Corin@ Logan
@LoganCorina



#Prestige=subjectively defined by the privileged. No wonder only privileged have it.
Prestige=bad 4 science & bad 4 non-privileged scientists

WhoseKnowledge? @WhoseKnowledge

Latin America has most #openaccess journals. >1000 journals in @RedeSciELO network. Have to prove credibility daily #OpenGlobalSouth

Archive

Volume 537

Issue 7621

News Feature

Article

NATURE | NEWS FEATURE



Is science only for the rich?

Around the world, poverty and social background remain huge barriers in scientific careers.

21 September 2016

A “good” CV is more an indicator of prestige and access to opportunity

<https://twitter.com/LoganCorina/status/868491581145444352>
https://www.nature.com/news/is-science-only-for-the-rich-1.20650?WT.mc_id=FBK_NatureNews&sf81929464=1

Tackling prestige barriers

Recruit students via groups that support URMS (e.g., SACNAS)



*Advancing Chicanos/Hispanics
& Native Americans in Science*

Consider the background of the person behind the CV: do they have enough privilege to have **access** to opportunity?

Remove indicators of “quality” when evaluating researchers (journal name, impact factor, etc.). Instead, read their work

I have argued that...

- 1) Scholarly publishing can exploit researchers, academia, the public
- 2) Publishing non-OA is discriminatory
- 3) Traditional academic practices are discriminatory

We can stop the exploitation and discrimination **right now** because...

- ethical OA options exist
- we can address our implicit biases

We won't be...



Corina Logan & Laurent Gatto



Leading individuals and
institutions in adopting open
practices to improve research rigor

ECRs often feel **pressured** into taking actions
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ECRs:

Sign the **petition** to help us change academic culture

http://bulliedintobadscience.org/#ecrs:_sign_the_letter

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practices to improve research rigor

Senior researchers, librarians, research administrators, and more:

Join the list of **supporters** by valuing open practices, especially when making decisions about hiring, promotion, and grants

http://bulliedintobadscience.org/#non-ecrs:_support_the_campaign

www.BulliedIntoBadScience.org | Twitter: #BulliedIntoBadScience

Slides CC-BY-SA 4.0 at osf.io/sy9f7/