

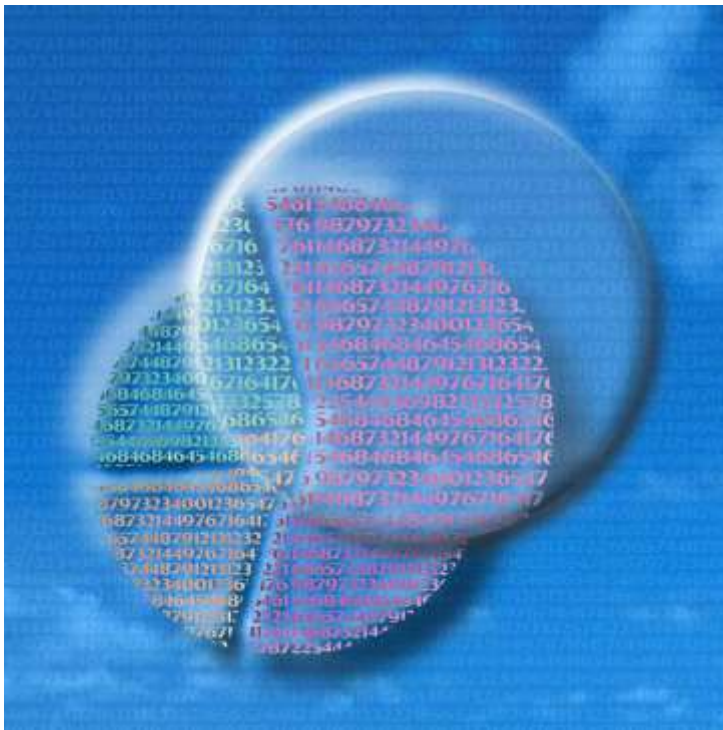
Open science blues

Andrea Saltelli

Event "Open science and responsible research: Epistemological, ethical, social, and political issues"

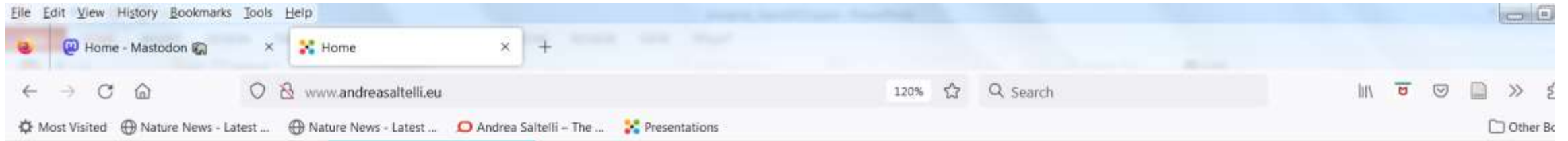
University Bicocca

Milano, June 23, 2023



<https://www.formazione.unimib.it/en/events/seminary-open-science-and-responsible-research>

Where to find this talk: www.andreasaltelli.eu



Andrea
Saltelli

HOME ABOUT ME PUBLICATIONS NEWS & VIDEOS RESOURCES

Coming Out Soon: The politics of modelling



Praise for the volume

"A long awaited examination of the role —and obligation —of modeling."

Nassim Nicholas Taleb, Distinguished Professor of Risk Engineering, NYU Tandon School of Engineering. Author, of the 5 -volume series *Incerto*.

"A breath of fresh air and a much needed

Mastodon Toots by

@AndreaSaltelli



AndreaSaltelli

2023/4/18 17:24

"Kaufman, who was until recently a senior climate economist in the White House, questioned the need for the government to set a single price. Regulators should stop "pretending we

Partly based on

 [Download This Paper](#)

[Open PDF in Browser](#)



[Revise my Submission](#) 



How to Teach Research Integrity?

16 Pages • Posted: 27 Feb 2023

Andrea Saltelli
UPF Barcelona School of Management

Date Written: February 21, 2023

Paper statistics	
DOWNLOADS	ABSTRACT VIEWS
37	101

To appear



Taylor & Francis
Taylor & Francis Group

What science do we really wish to open?

Who does the opening?

What science do we
wish to open?

Capitalism and Society

Volume 3, Issue 2

2008

Article 5

The Historical Origins of 'Open Science': An Essay on Patronage, Reputation and Common Agency Contracting in the Scientific Revolution

Paul A. David, *Stanford University & The University of
Oxford*

Open science was always a fragile social construction ...

The Historical Origins of 'Open Science': An Essay on Patronage, Reputation and Common Agency Contracting in the Scientific Revolution

Paul A. David, *Stanford University & The University of Oxford*

... resulting from the movement away from secret knowledge and princely patronage toward state patronage, academies, and other modern institutions of science, taking place in the period between renaissance and the industrial revolution

What was before open science?

"Regarding the everyday duties, I shun only that type of prostitution consisting of having to expose my labor to the arbitrary prices set by every customer.

Instead, I will never look down on service a prince or a great lord or those who may depend on him, but, to the contrary, I will always desire such a position." (Galileo Galilei, 1564 – 1642)



Capitalism and Society

Volume 3, Issue 2

2008

Article 5

The Historical Origins of 'Open Science': An
Essay on Patronage, Reputation and Common
Agency Contracting in the Scientific
Revolution

Paul A. David, *Stanford University & The University of
Oxford*

Open science exists already, funded by public and private actors, based on a distinctive ethos

It coexists with commercially oriented research

Capitalism and Society

Volume 3, Issue 2

2008

Article 5

The Historical Origins of 'Open Science': An
Essay on Patronage, Reputation and Common
Agency Contracting in the Scientific
Revolution

Paul A. David, *Stanford University & The University of
Oxford*

Open science lives a tension between:

Defending the existing ethos of the republic of science, Merton's CUDOS, "public knowledge"

Proprietary science, secrecy, visions of a knowledge economy

Capitalism and Society

Volume 3, Issue 2

2008

Article 5

The Historical Origins of 'Open Science': An
Essay on Patronage, Reputation and Common
Agency Contracting in the Scientific
Revolution

Paul A. David, *Stanford University & The University of
Oxford*

An acceleration toward 'Intellectual Capitalism'
risks to move science back to the age of
princely patronage ...

... from CUDOS back to the pre-renaissance
ethos of secrecy in the pursuit of Nature's
Secrets

Capitalism and Society

Volume 3, Issue 2

2008

Article 5

The Historical Origins of 'Open Science': An
Essay on Patronage, Reputation and Common
Agency Contracting in the Scientific
Revolution

Paul A. David, *Stanford University & The University of
Oxford*

What Philip Mirowski has to say about the dangers of open science



S|S|S

Article

The future(s) of open science

Social Studies of Science
2018, Vol. 48(2) 171–203

© The Author(s) 2018

Reprints and permissions:

sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/0306312718772086

journals.sagepub.com/home/sss

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA



We already struggle with
“author–paid Article Publishing
Charges (APCs) that range from
\$500 to \$5,000 USD [Elsevier
OA]”;

Corporate publishers have easily
assimilated open access into their
profit model.

“the agenda [of open science] is effectively to re-engineer science along the lines of platform capitalism, under the misleading banner of opening up science to the masses”

Article

S|S|S

The future(s) of open science

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA

Social Studies of Science
2018, Vol. 48(2) 171–203

© The Author(s) 2018

Reprints and permissions:

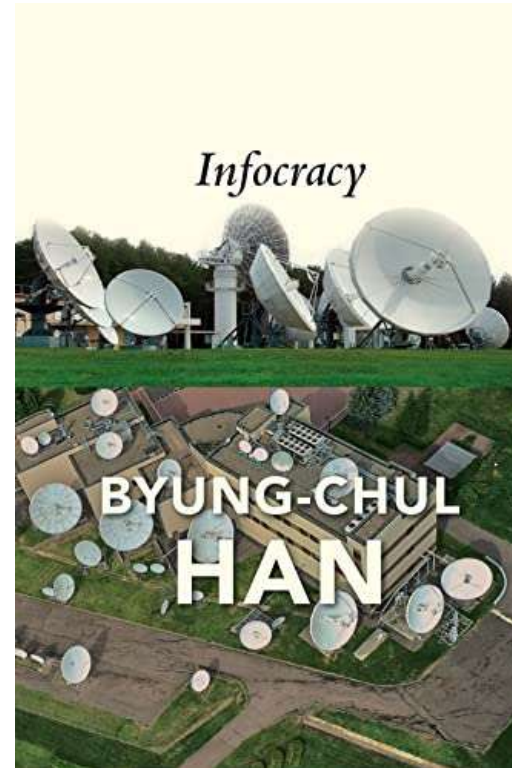
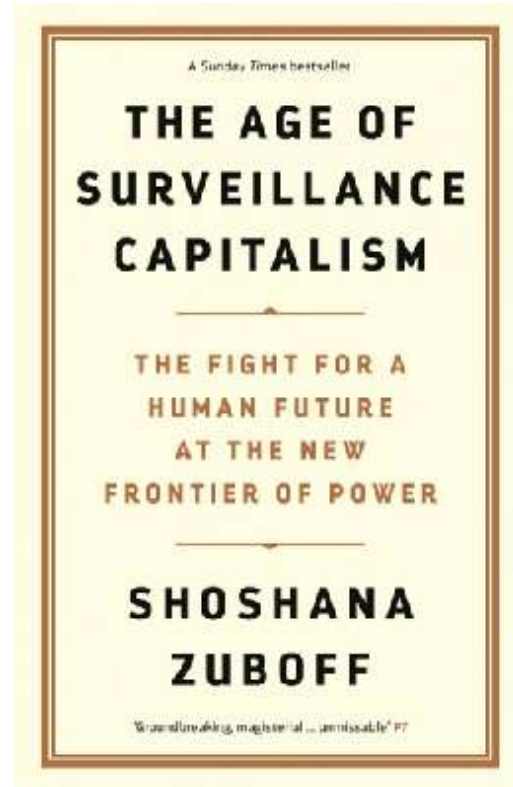
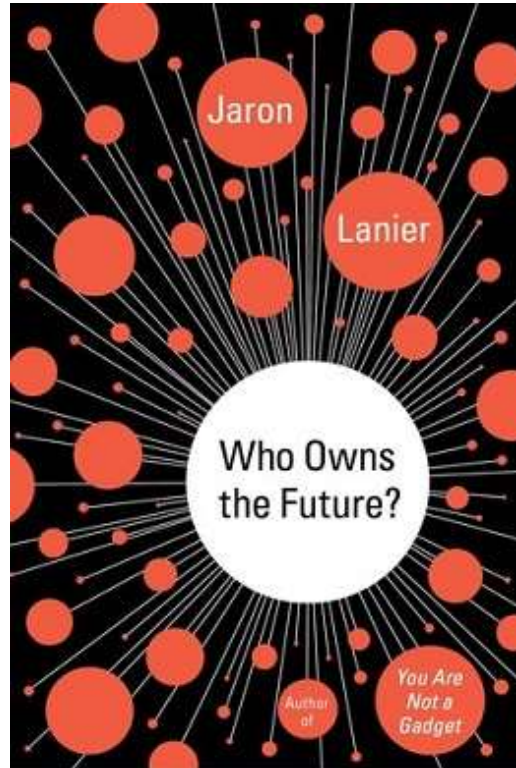
sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/0306312718772086

journals.sagepub.com/home/sss

 SAGE

[Platform capitalism is ...]



“the open science movement is an artifact of the current neoliberal regime of science, [to] reconfigures both the institutions and the nature of knowledge to better conform to market imperatives”



Article

The future(s) of open science

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA

S|S|S

Social Studies of Science
2018, Vol. 48(2) 171–203

© The Author(s) 2018

Reprints and permissions:

sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/0306312718772086

journals.sagepub.com/home/sss



How a neoliberal agenda has damaged science

Article

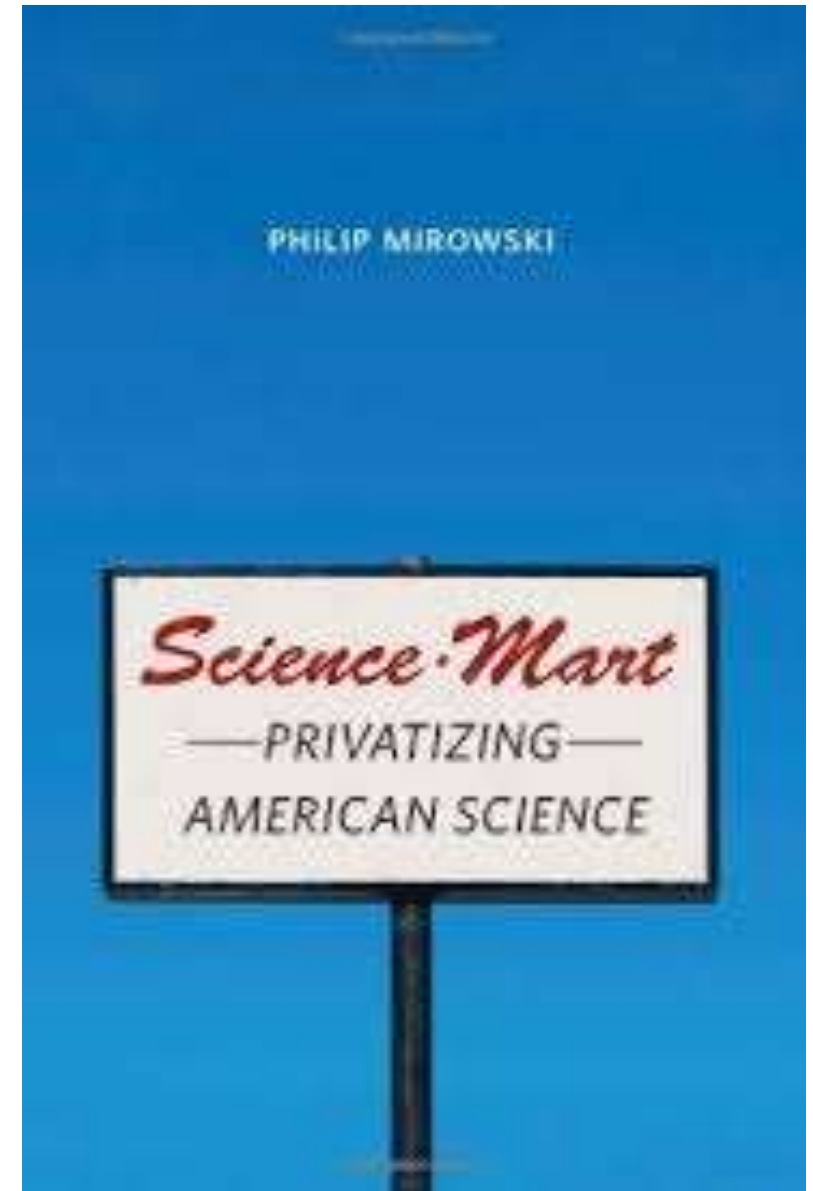
S|S|S

The future(s) of open science

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA

Social Studies of Science
2018, Vol. 48(2) 171–203
© The Author(s) 2018
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/0306312718772086
journals.sagepub.com/home/sss



What is hence the danger for Mirowski?

Platform capitalism and the uberization of science

Article

S|S|S

The future(s) of open science

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA

Social Studies of Science
2018, Vol. 48(2) 171–203
© The Author(s) 2018

Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/0306312718772086
journals.sagepub.com/home/sss



Platforms competing to become the 'Facebook for Science'

The future(s) of open science

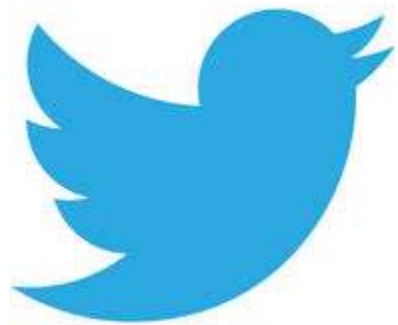
Social Studies of Science
 2018, Vol. 48(2) 171–203
 © The Author(s) 2018
 Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
 DOI: 10.1177/0306312718772086
journals.sagepub.com/home/sss

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA



	Gate; Twitter	Polymath; Mendeley; EU OS Cloud	Open data; Pure; E OS Cloud	MENDELEY	Publication managers	Post-publication
Gate; Twitter	Polymath; Mendeley; EU OS Cloud	Open data; Pure; E OS Cloud	MENDELEY	Publication managers	Post-publication	
Spectator scientists Outsider citizens Kibitzers	Twitter; Blogs Wilson Ctr CS Twitter	Open collaborate; ScienceMatters SETI@hom; Foldit	Virtuallabs; Vlab.com DIY bio; zooniverse Open source software			Academia.edu; PeerJ; PubPeer Open access commentary



The future is with us already

we as scientists already live in “a quasi-market that constantly monitors [our] ‘net worth’ through a range of metrics, scores and indicators”

H-index, impact factors, peer contacts, network affiliations, and the like”

Article

S|S|S

The future(s) of open science

Philip Mirowski 

John J. Reilly Center, University of Notre Dame, Notre Dame, IN, USA

Social Studies of Science
2018, Vol. 48(2) 171–203
© The Author(s) 2018
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/0306312718772086
journals.sagepub.com/home/sss

 SAGE

What implicit ideological commitment underpins the open science movement?



Source:
https://commons.wikimedia.org/wiki/File:John,_king_of_Scotland,_being_brought_before_Edward_I.png

Science separated from ethics,
from philosophy, from policy:
possible? Desirable?

Why ethics and science are separated?

“Medicine has as a task to preserve life and avoid suffering, but does not say why; science aims to discover the secrets of nature but not tell why we should be doing so ...”

Max Weber, 1864–1920
“Science as a Vocation”
'Wissenschaft als Beruf'
Speech at Munich University, 1918



Why ethics and science are separated?

Who -- aside from certain big children who are indeed found in the natural sciences -- still believes that the findings of astronomy, biology, physics, or chemistry could teach us anything about the meaning of the world?"

Max Weber, 1864–1920
“Science as a Vocation”
‘Wissenschaft als Beruf’
Speech at Munich University, 1918



Why ethics and science cannot be separated?

RADICAL PHILOSOPHY

Archive +

About +

Support +



search ...



The following text has been automatically reproduced by an Optical Character Recognition (OCR) algorithm. It may not have been checked over by human eyes. For matters of precision please consult the original pdf.

Ideological Commitments in the Philosophy of Science

With a Comment on Ravetz by Edgley

Jerry Ravetz and Roy Edgley

RP 037 (Summer 1984)

http://www.andreasaltelli.eu/file/repository/Ideological_committment.pdf

Ravetz's conclusions

The edifice built by Popper and Lakatos was vulnerable to the critique of Kuhn and Feyerabend, perhaps because of its ideological aspirations

Yet the Enlightenment battle against the church cultural and political hegemony is over, so is a simplistic image of science upholding the Good and the True



The screenshot shows the top section of the Radical Philosophy website. The main title "RADICAL PHILOSOPHY" is in large, bold, black letters. Below it is a navigation menu with links for "Archive +", "About +", and "Support +". To the right of the menu is a search bar with a magnifying glass icon. Further right is a red rectangular box with white text that reads "Issue 037 series 1 Summer 1984". Below the navigation menu is a grey box containing a disclaimer: "The following text has been automatically reproduced by an Optical Character Recognition (OCR) algorithm. It may not have been checked over by human eyes. For matters of precision please consult the original pdf." Below this disclaimer is the title of the article: "Ideological Commitments in the Philosophy of Science" in bold black text. Underneath the title is the subtitle "With a Comment on Ravetz by Edgley" and the authors' names "Jerry Ravetz and Roy Edgley". At the bottom of the article preview is the issue information "RP 037 (Summer 1984)".

RADICAL PHILOSOPHY

Issue 037 series 1 Summer 1984

Archive + About + Support + search ...

The following text has been automatically reproduced by an Optical Character Recognition (OCR) algorithm. It may not have been checked over by human eyes. For matters of precision please consult the original pdf.

Ideological Commitments in the Philosophy of Science
With a Comment on Ravetz by Edgley
Jerry Ravetz and Roy Edgley
RP 037 (Summer 1984)

Is this true?



The Enlightenment battle against the church cultural and political hegemony is over, so is a simplistic image of science upholding the Good and the True


RADICAL PHILOSOPHY

[Archive +](#)

[About +](#)

[Support +](#)



search ... 

issue
037
series 1
Summer 1984

The following text has been automatically reproduced by an Optical Character Recognition (OCR) algorithm. It may not have been checked over by human eyes. For matters of precision please consult the original pdf.

Ideological Commitments in the Philosophy of Science

With a Comment on Ravetz by Edgley

Jerry Ravetz and Roy Edgley

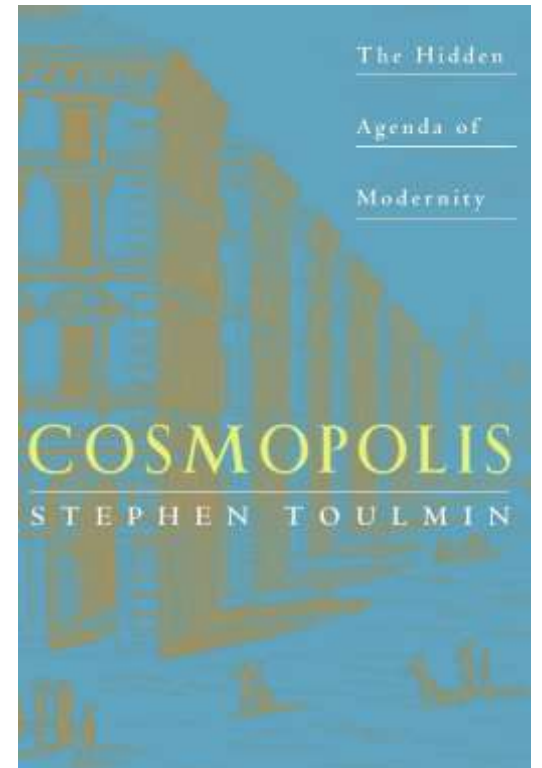
RP 037 (Summer 1984)

If you are a scientist you were
nourished and trained in what Stephen
Toulmin calls 'The hidden agenda of
modernity'

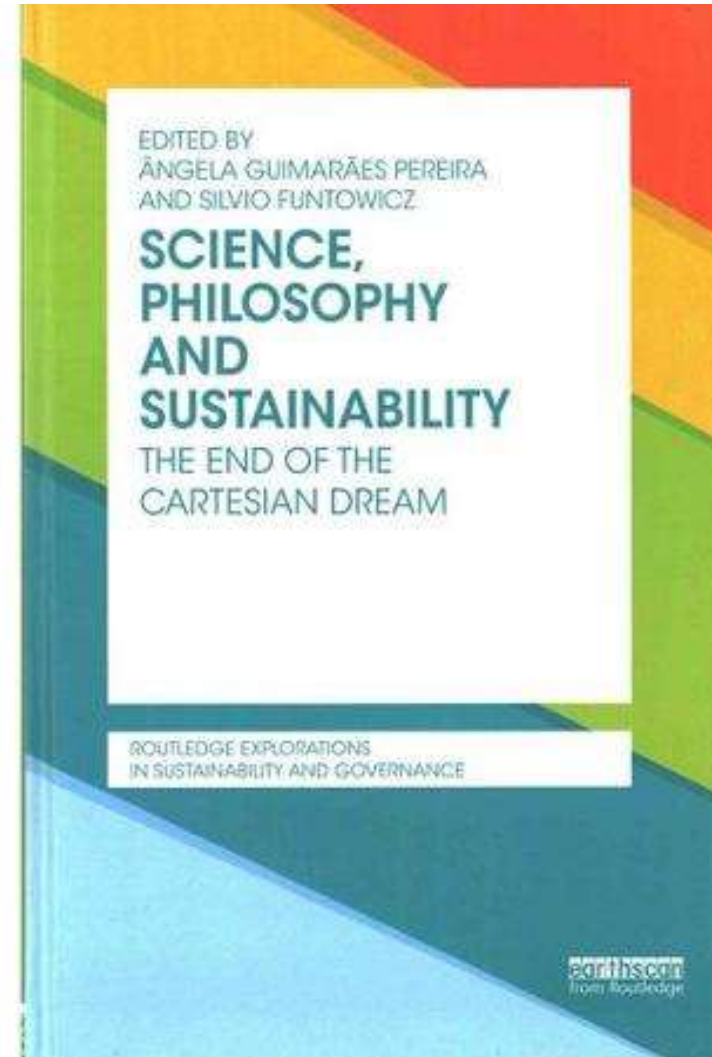
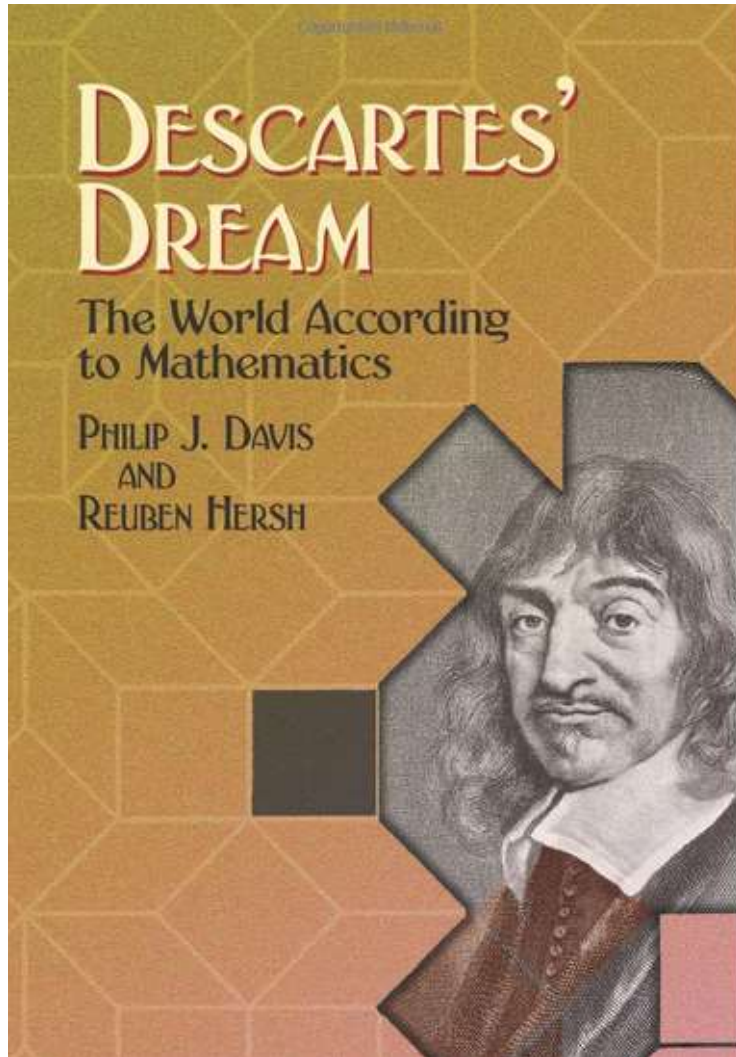
The vision of Cosmopolis, a society
rationally ordered as per a Newtonian
view of nature



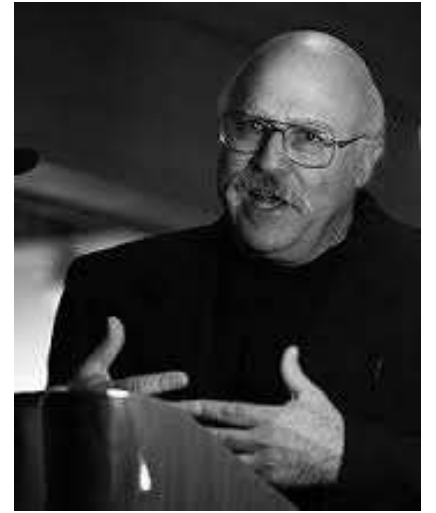
Stephen Toulmin



The Cartesian dream



The dream was spectacularly successful, in all fields of endeavor, leading to what Steven Shapin calls ‘invisible science’...

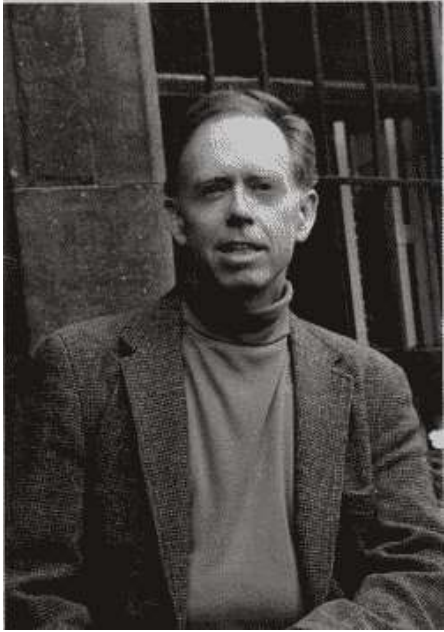


Steven Shapin

... and yet

Steven Shapin, 2016, Invisible Science, The Hedgehog Review: Vol. 18 No. 3 (Fall 2016).

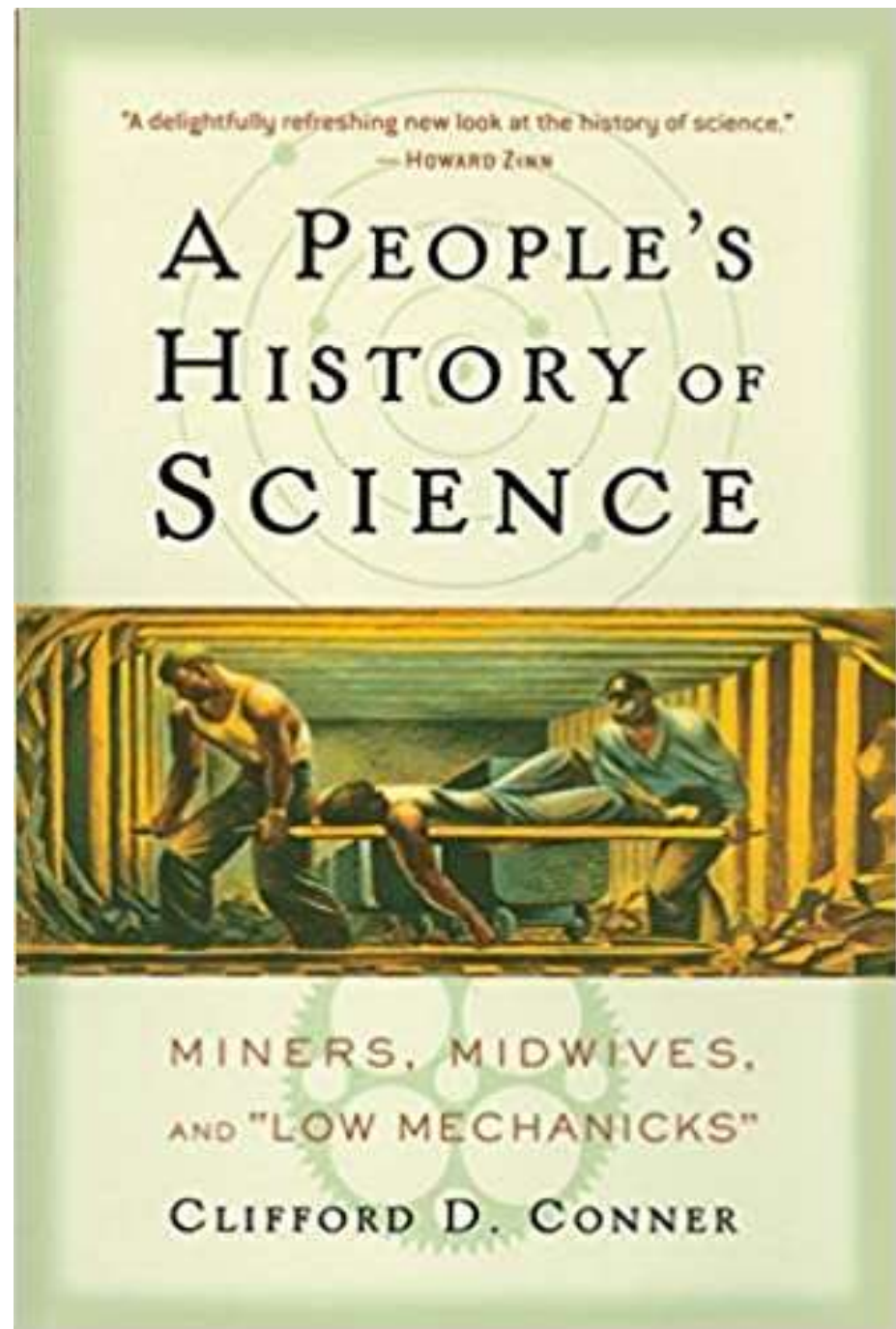
What is science?

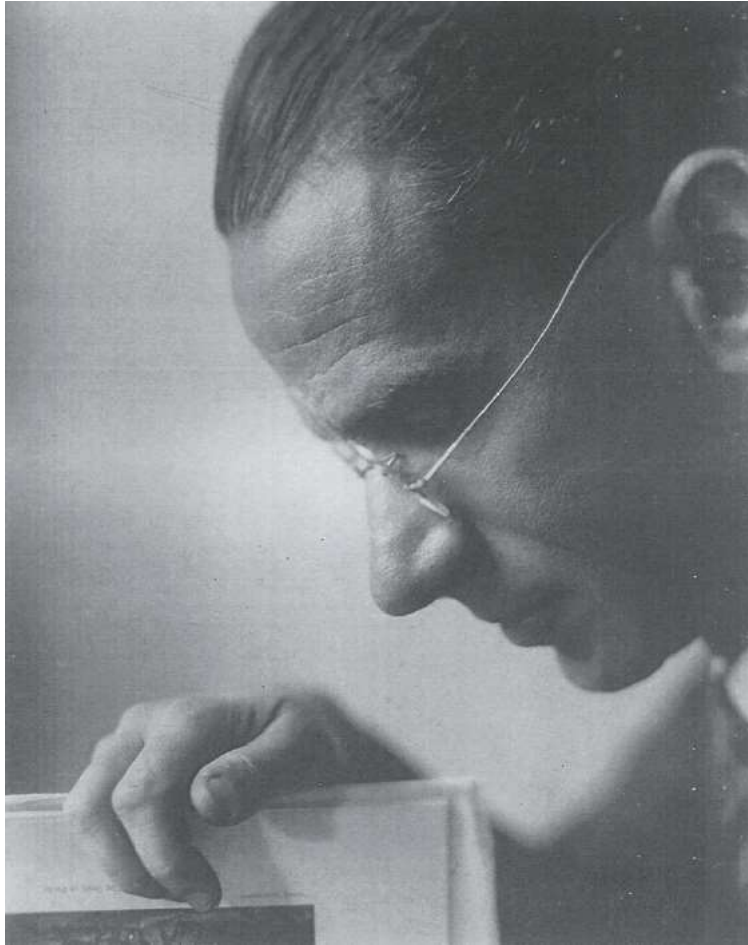


Clifford D. Conner

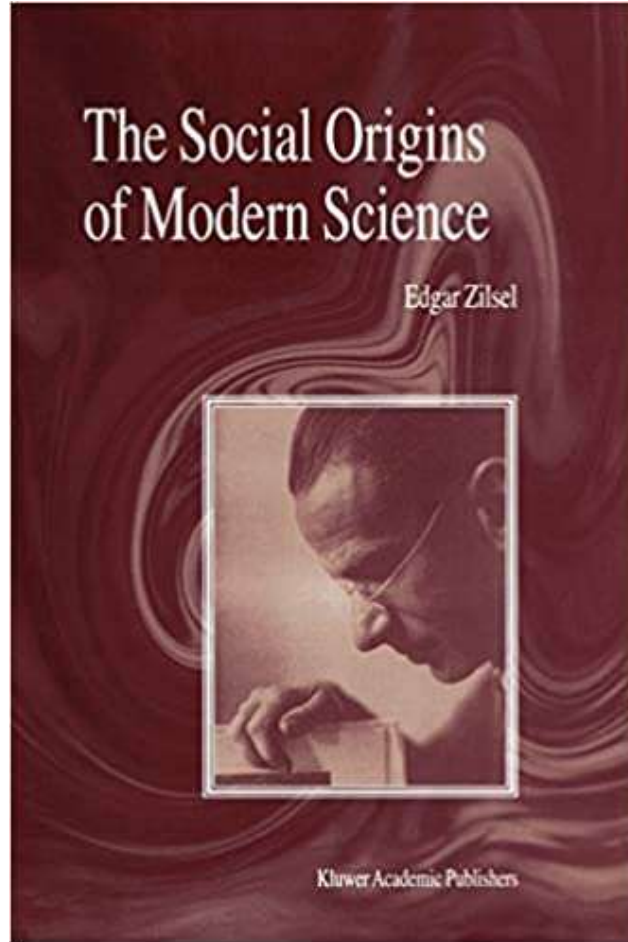
An antidote to a vision of the history of science as the fruit of the intuition of great (mostly) men

‘Knowing what’ was often only possible after ‘knowing how’ had been discovered





Edgar Zilsel
(1891–1944)



The Zilsel thesis:

- Superior artisans,
- Secular humanists,
- University scholars

“Science originates in urban cultures, money economy, market economy...”

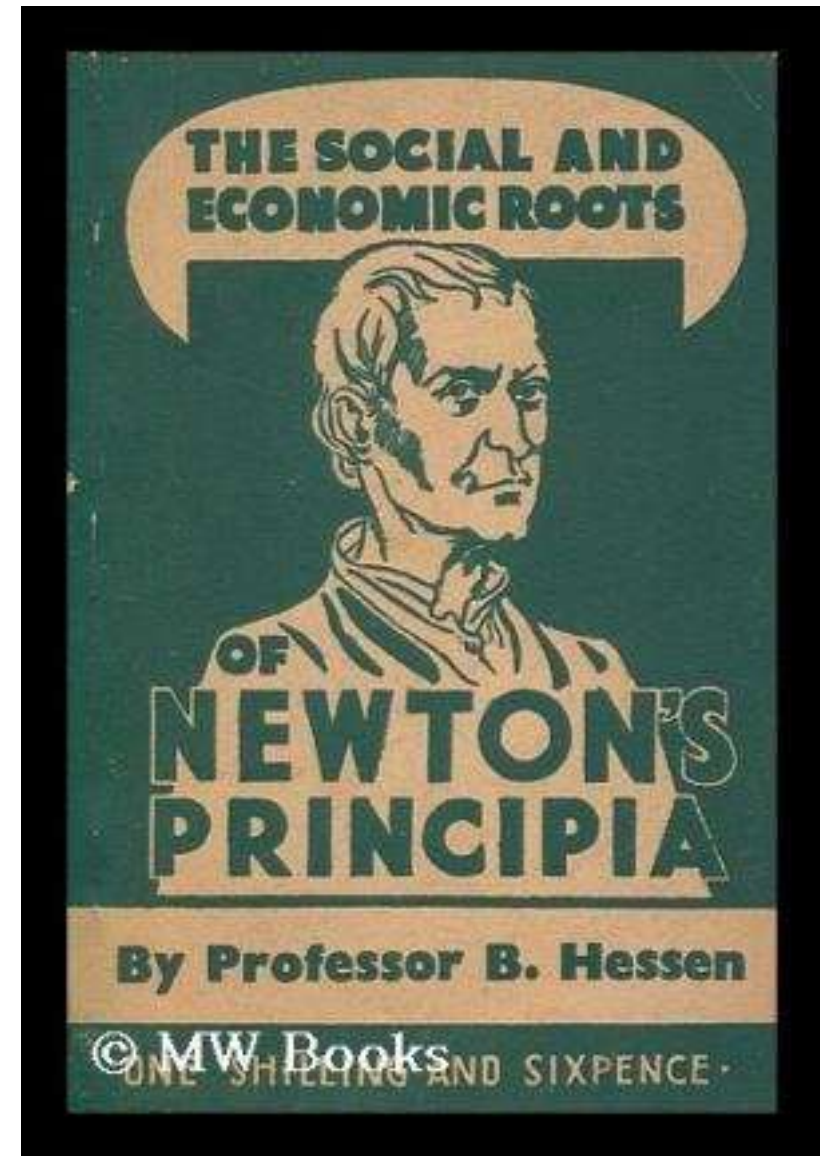


Boris Hessen
(1893–1936)

The Hessen thesis:

Science originates
from the commercial
and capitalistic needs
of the XVII century
nascent bourgeoisie ...

... not just from the
work of 'great minds'



How about the way we
are taught our science?

Kuhn said that the “educational initiation that prepares and licenses the student for professional practice… is both rigorous and rigid”

and “It is a narrow and rigid education [in physics/science], probably more so than any other except perhaps in orthodox theology”



Thomas Kuhn, *The structure of scientific revolution*, 192, Chapters I and XIII

and “the member of a mature scientific community is, like the typical character of Orwell’s 1984, the victim of a history rewritten by the powers that be.”



Thomas Kuhn, *The structure of scientific revolution*, 192, Chapter XIII

What is this science we wish to open?

- The legacy of Enlightenment
- The way to emancipation and Bildung
- ...
- A tool of corporate power?

Sylvain Laurens

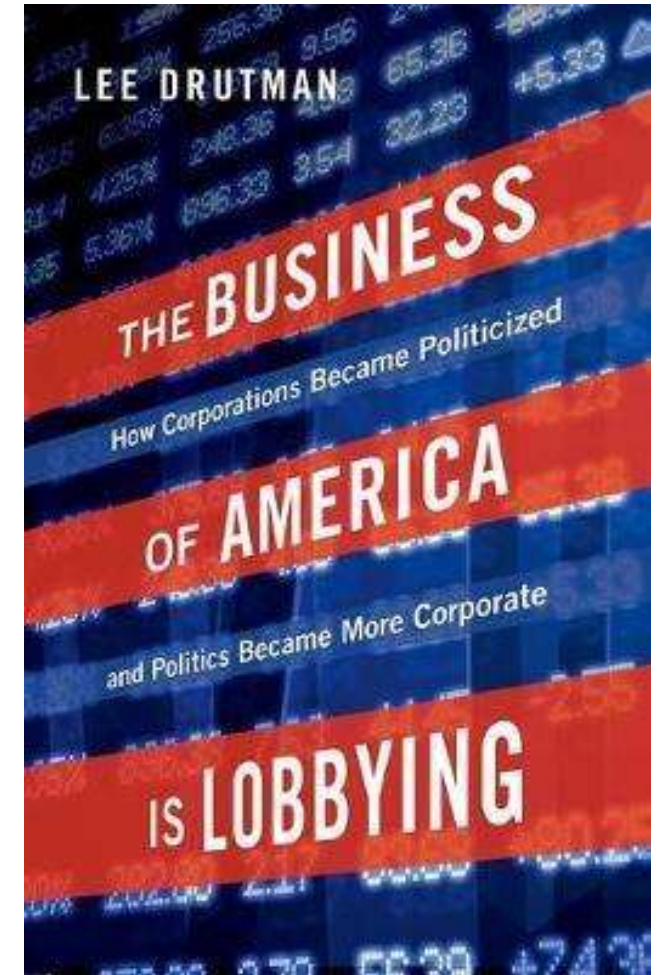


LOBBYISTS AND BUREAUCRATS IN BRUSSELS CAPITALISM'S BROKERS

Sylvain Laurens



Lee Drutman





Futures

Volume 135, January 2022, 102860



Science, the endless frontier of regulatory capture

Andrea Saltelli ^a  , Dorothy J. Dankel ^{b, c}, Monica Di Fiore ^d, Nina Holland ^e,
Martin Pigeon ^e

From the abstract:

... a form of corporate penetration which is based on a strategic use of the image and legitimacy of science

...cases where lobbyists present themselves as upholders of the values of the evidence-based policy, and interested in the methodological and ethical aspect of science for policy

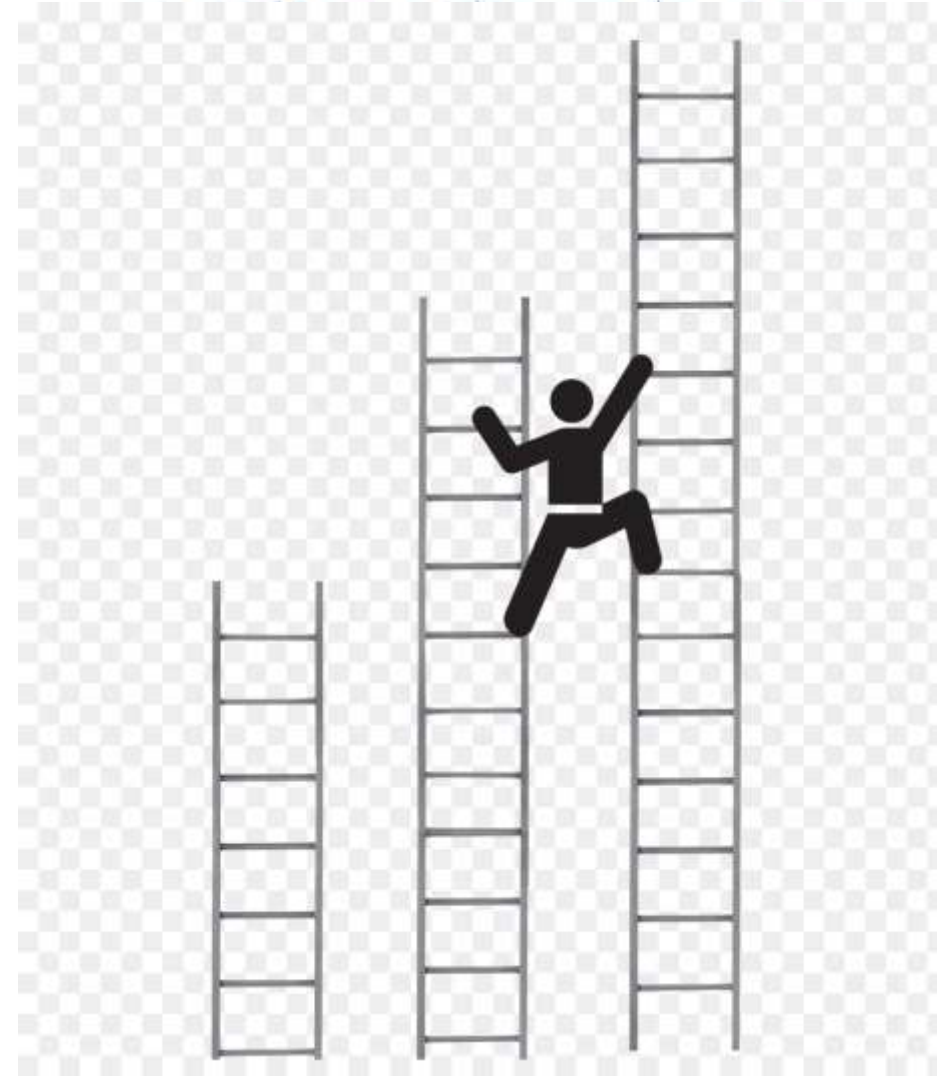
From the abstract:

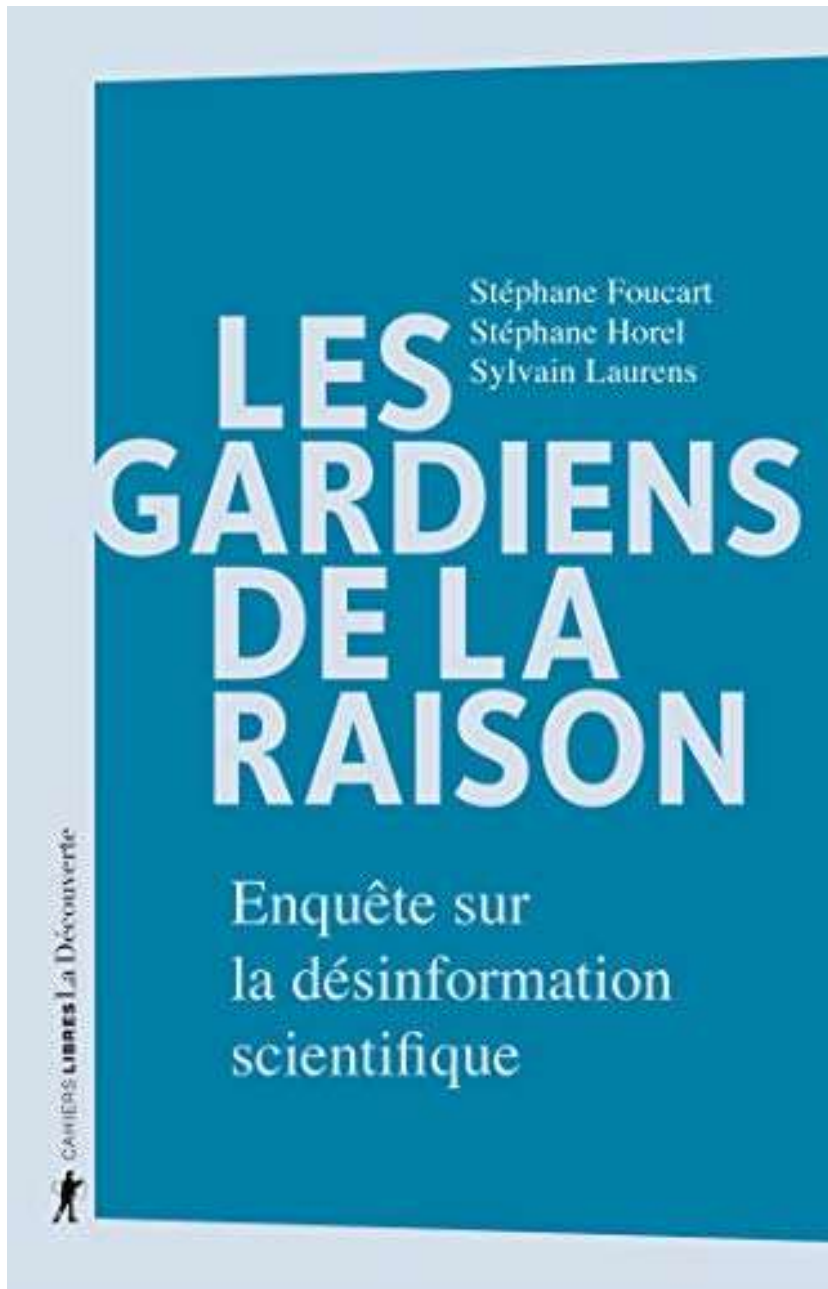
Epistemic ladder: lobbyists move from **questioning** the evidence to **questioning** its legitimacy, all the way to **creating** a worldview where not only the evidence, but the very idea of regulation, become irrelevant or undesirable

An epistemic ladder for regulatory capture

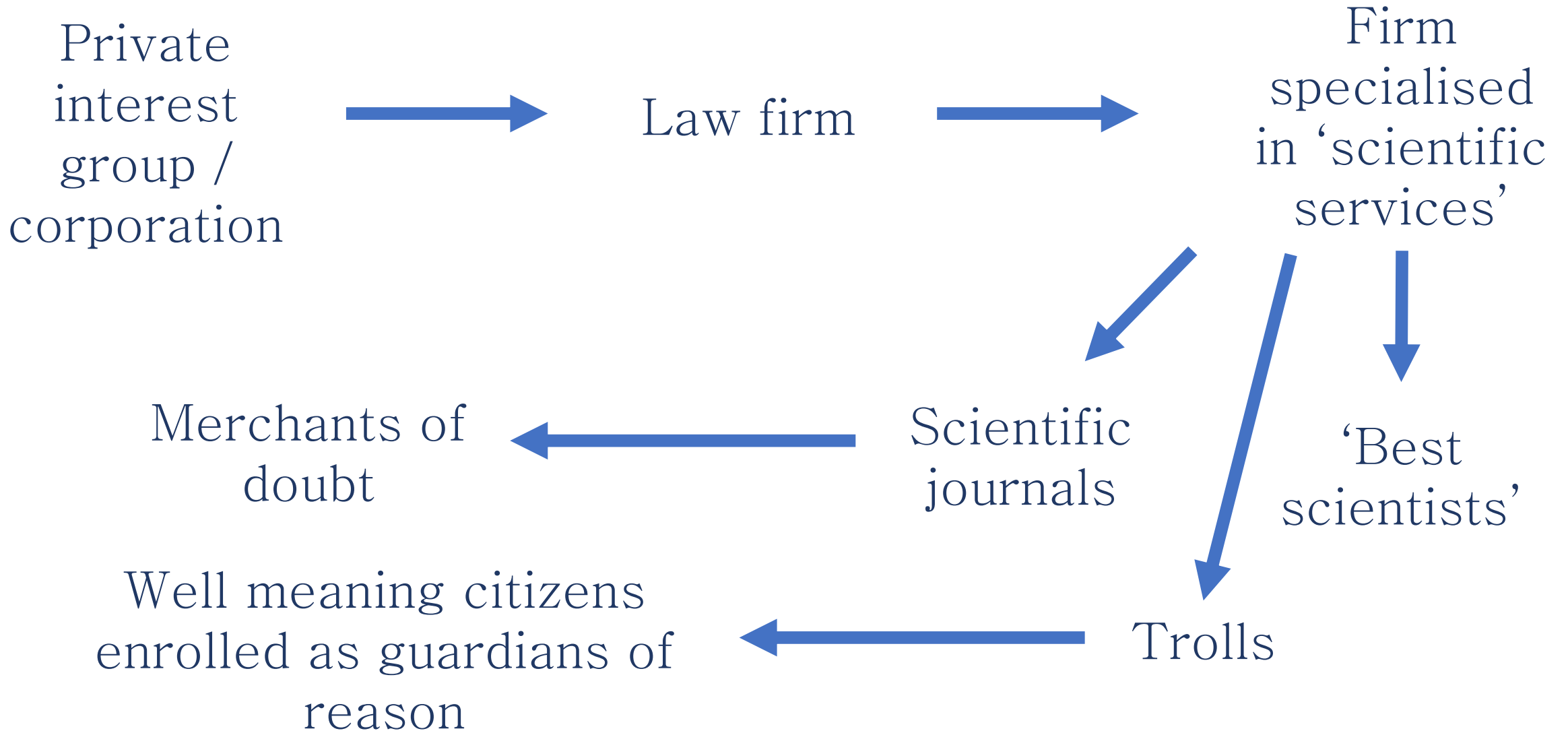
- **Epistemic.** Invalidating the inference or the methods
- **Institutional.** Delegitimising and/or 'colonising' institutions
- **Political.** Promoting a worldview where the very idea of regulation is undesirable

Science, the endless frontier of
regulatory capture





An army of self-proclaimed ‘fact checkers’ becomes mobilized in the defence of a neoliberal and conservative credo, posing as victims of an assault on science perpetrated by the purported enemies of reason

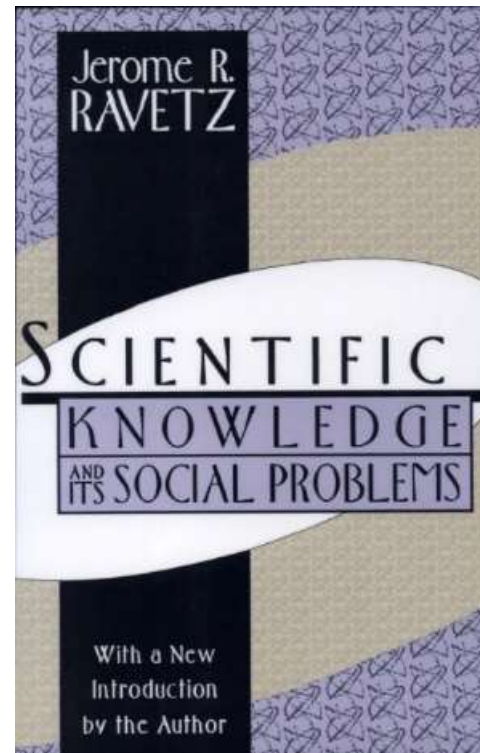


What is this science we wish to open?

An enterprise whose quality control apparatus
appears on the verge of collapse?

p.22: “[...] The problem of quality control in science is at the centre of the social problems of the industrialized science of the present period.”

Ravetz, J., 1971, *Scientific Knowledge and its Social Problems*, Oxford University Press.



Jerome R.
Ravetz

Failed replications, entire subfields going bad,
fraudulent peer reviews, predatory publishers,
perverse metrics, statistics on trial ...




Brow

 OPEN ACCESS

ESSAY

June 21, 2017

Why Most Clinical Research Is Not Useful

John P. A. Ioannidis 

Published: June 21, 2016 • <https://doi.org/10.1371/journal.pmed.1002049>

THE
ECONOMIC
JOURNAL



The Economic Journal, 127 (October), F236–F265. Doi: 10.1111/eoj.12461 © 2017 Royal Economic Society. Published by John Wiley & Sons, 9600 Garsington Road, Oxford OX4 2DQ, UK and 350 Main Street, Malden, MA 02148, USA.

THE POWER OF BIAS IN ECONOMICS RESEARCH*

John P. A. Ioannidis, T. D. Stanley and Hristos Doucouliagos

October 27, 2017



Futures

Volume 91, August 2017, Pages 5-11



What is science's crisis really about?

Andrea Saltelli ^{a, b}  , Silvio Funtowicz ^a



Futures

Volume 104, December 2018, Pages 85-90



Why science's crisis should not become a political battling ground

Andrea, Saltelli 



THE RIGHTFUL
PLACE OF SCIENCE:

SCIENCE ON THE VERGE

CONTRIBUTORS

Alice Benessia	Jerome R. Ravetz
Silvio Funtowicz	Andrea Saltelli
Mario Giampietro	Roger Strand
Ângela Guimarães Pereira	Jeroen P. van der Sluijs



Cargo-cult statistics and scientific crisis

Written by Philip B. Stark and Andrea Saltelli on 05 July 2018. Posted in [Science](#)



P-hacking,
HARKing, salami
slicing, ...

nature materials

Published: January 2005

The cost of salami slicing


Nature Materials 4, 1(2005) | [Cite this article](#)

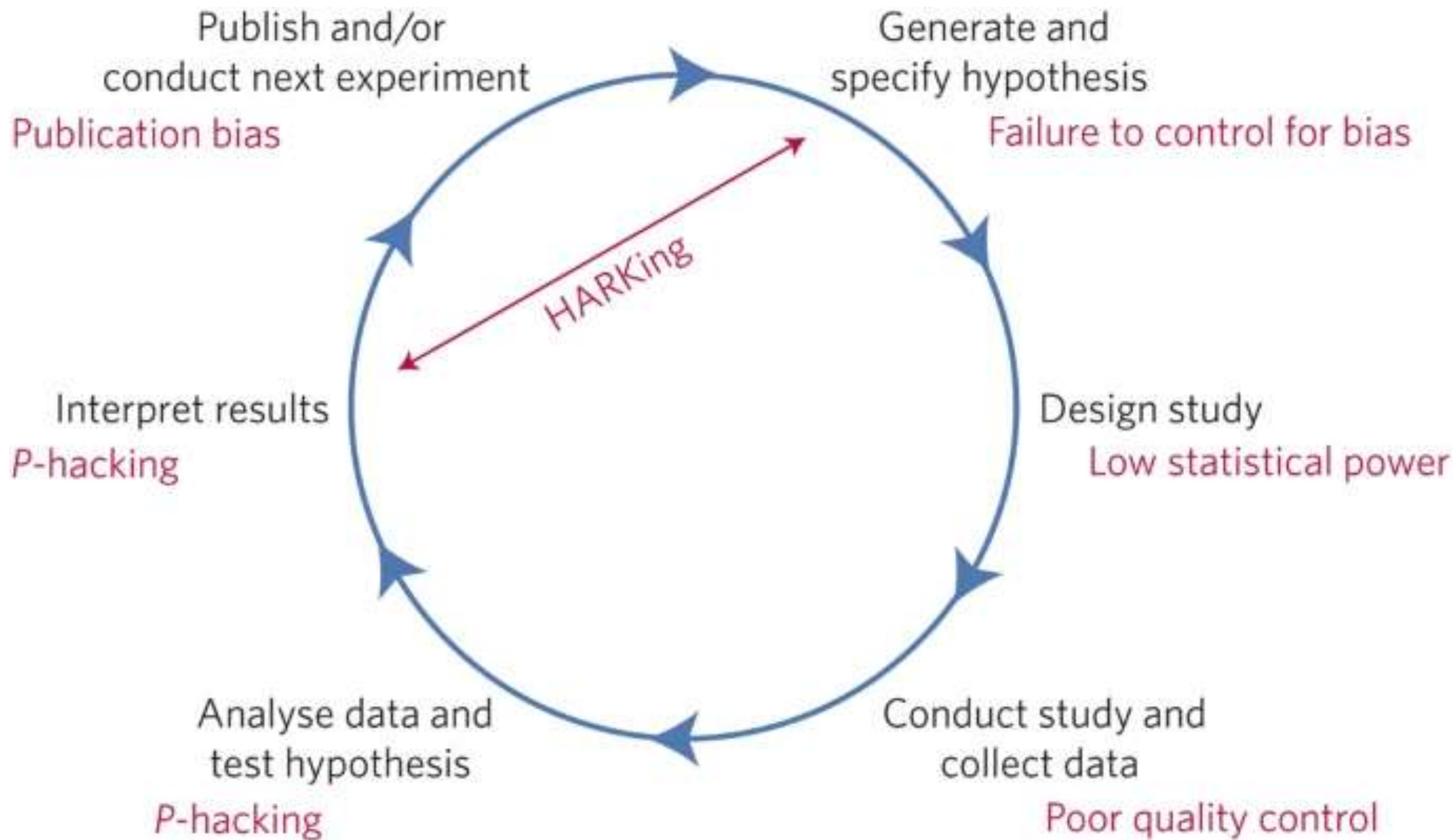


nature human behaviour

Open Access | Published: 10 January 2017

A manifesto for reproducible science

Marcus R. Munafò , Brian A. Nosek, Dorothy V. M. Bishop, Katherine S. Button, Christopher D. Chambers, Nathalie Percie du Sert, Uri Simonsohn, Eric-Jan Wagenmakers, Jennifer J. Ware & John P. A. Ioannidis



Darwinian fitness of malpractices

Downloaded from <http://rsos.royalsocietypublishing.org/> on September 23, 2016

**ROYAL SOCIETY
OPEN SCIENCE**

rsos.royalsocietypublishing.org

Research



CrossMark
click for updates

Cite this article: Smaldino PE, McElreath R.

2016 The natural selection of bad science.

R. Soc. open sci. **3**: 160384.

<http://dx.doi.org/10.1098/rsos.160384>

Received: 1 June 2016


Accepted: 17 August 2016

The natural selection of bad science

Paul E. Smaldino¹ and Richard McElreath²

¹Cognitive and Information Sciences, University of California, Merced, CA 95343, USA

²Department of Human Behavior, Ecology, and Culture, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

 PES, 0000-0002-7133-5620; RME, 0000-0002-0387-5377

Poor research design and data analysis encourage false-positive findings. Such poor methods persist despite perennial calls for improvement, suggesting that they result from something more than just misunderstanding. The persistence of poor methods results partly from incentives that favour them, leading to the natural selection of bad science. This dynamic requires no conscious strategizing—no deliberate cheating nor loafing—by scientists, only that publication is a principal factor for

What is this science
we wish to open?

A science that is in
the process of
losing its monopoly
on truth?

JOURNAL

PROJECTS

BOOKS

THE NEW
ATLANTIS

SUBSCRIBE

DONATE

SEARCH

Reformation in the Church of Science

How the truth monopoly was broken up

Andrea Saltelli and Daniel Sarewitz

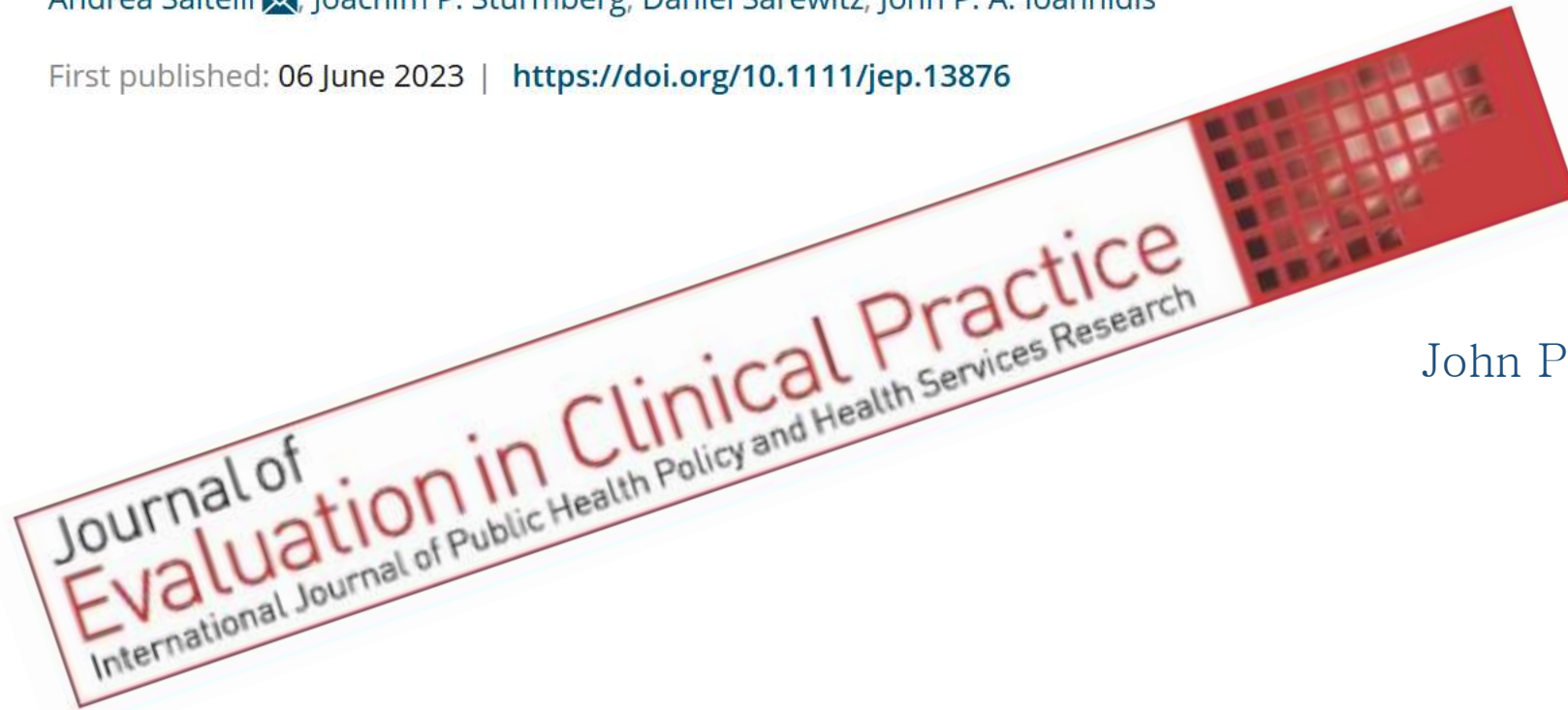


COMMENTARY |  Open Access |  

What did COVID-19 really teach us about science, evidence and society?

Andrea Saltelli , Joachim P. Sturmberg, Daniel Sarewitz, John P. A. Ioannidis

First published: 06 June 2023 | <https://doi.org/10.1111/jep.13876>



Daniel Sarewitz



John P.A. Ioannidis



Joachim P. Sturmberg






Did we follow the science?

With what results?

What if science was the problem to start with?

How about trust in the long term?

COMMENTARY |  Open Access |  

**What did COVID-19 really teach us about science,
evidence and society?**


Andrea Saltelli  Joachim P. Sturmberg, Daniel Sarewitz, John P. A. Ioannidis

First published: 06 June 2023 | <https://doi.org/10.1111/jep.13876>

Journal of
Evaluation in Clinical Practice
International Journal of Public Health Policy and Health Services Research



“Radically different responses to the disease from nation to nation—from draconian lockdowns across all sectors, to relatively permissive and flexible pandemic regimes—made obvious to all that the value of scientific evidence was to support what was politically desirable and possible in different contexts. Rather than politics following the science, science was enlisted to follow the politics.”

COMMENTARY |  Open Access |  

What did COVID-19 really teach us about science, evidence and society?

Andrea Saltelli  Joachim P. Sturmberg, Daniel Sarewitz, John P. A. Ioannidis

First published: 06 June 2023 | <https://doi.org/10.1111/jep.13876>

Journal of
Evaluation in Clinical Practice
International Journal of Public Health Policy and Health Services Research



COMMENT · 24 JUNE 2020

Five ways to ensure that models serve society: a manifesto

Pandemic politics highlight how predictions need to be transparent and humble to invite insight, not blame.

COVID-19 and its models



Illustration by David Parkins



nature

COVID-19 policies dictated by ‘science’ with several digits precision in the presence of fundamental uncertainties



Undocumented research code used as a policy tool (chameleon models)



Pfleiderer, P. Chameleons: The Misuse of Theoretical Models in Finance and Economics. *Economica* 87, 81–107 (2020).

Reformation in the Church of How the truth monopoly was broken up

Andrea Saltelli and Daniel Sarewitz



Andrea Saltelli and Daniel Sarewitz

THE NEW ATLANTIS

A JOURNAL OF TECHNOLOGY & SOCIETY

REALITY: A POST-MORTEM

◆ Whither Consensus? ◆ Life in an Alternate Reality Game ◆

A new essay series by Jon Askonas

Saving the Real

Andrea Saltelli & Daniel Sarewitz on why the 95 THESES are back

Alan Jacobs on DEMONS and why we're all going nuts

David Bentley Hart on minds in SIMULATED WORLDS

James Mumford on THERAPY beyond good and evil

Kit Wilson on READING ourselves to death

Laurence Scott on why hell is OURSELVES

Alan Rome ~ *Star Trek* into sadness

Gabrielle Bauer ~ Precautionary peril

Paul Dicken ~ AI & HR's unholy union

John Konichi & James Pethokoukis ~ Do Americans care about space?

From: Reformation in the Church of Science. How the truth monopoly was broken up

Saving the Real

Andrea Saltelli & Daniel Sarewitz on why the 95 THESES are back



THE NEW ATLANTIS

A JOURNAL OF TECHNOLOGY & SOCIETY

REALITY: A POST-MORTEM

◆ Whither Consensus? ◆ Life in an Alternate Reality Game ◆

A new essay series by Jon Askonas

Saving the Real

Andrea Saltelli & Daniel Sarewitz on why the 95 THESES are back

Alan Jacobs on DEMONS and why we're all going nuts

David Bentley Hart on minds in SIMULATED WORLDS

James Mumford on THERAPY beyond good and evil

Kit Wilson on READING ourselves to death

Laurence Scott on why hell is OURSELVES

Alan Rome ~ Star Trek into sadness

Gabrielle Bauer ~ Precautionary peril

Paul Dicken ~ AI & HR's unholy union

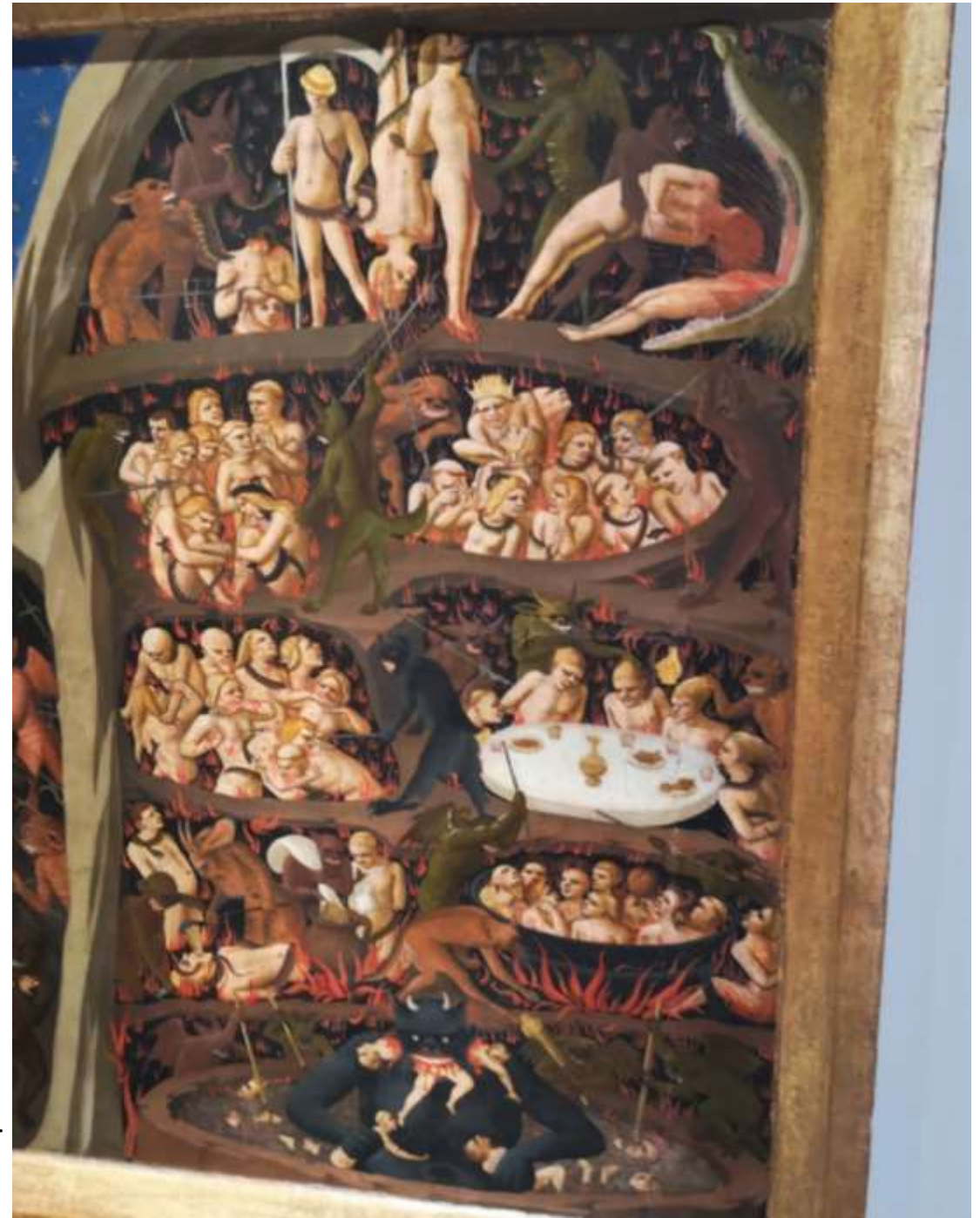
John Konichi & James Pethokoukis ~ Do Americans care about space?

NUMBER 88 — SPRING 2022 — \$10.00

TheNewAtlantis.com

We know from history that what seemed to be stable regimes of truth may collapse, and be replaced

The Last Judgment (Fra Angelico, c. 1425-1430, San Marco, Florence)



Internet and the new media change the landscape of communication: scientific institutions lose the monopoly over factual claims



THE NEW ATLANTIS
A JOURNAL OF TECHNOLOGY & SOCIETY

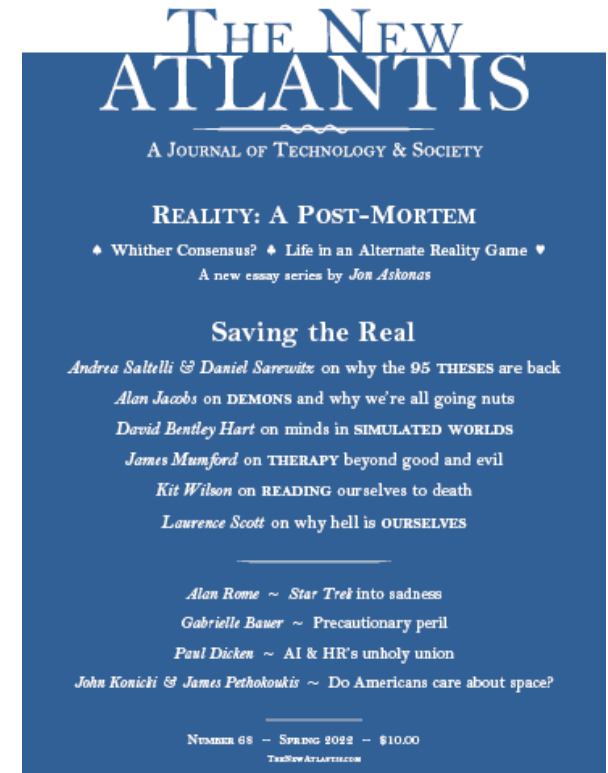
REALITY: A POST-MORTEM
♦ Whither Consensus? ♦ Life in an Alternate Reality Game ♦
A new essay series by *Jon Askonas*

Saving the Real
Andrea Saltelli & Daniel Sarewitz on why the 95 THESES are back
Alan Jacobs on DEMONS and why we're all going nuts
David Bentley Hart on minds in SIMULATED WORLDS
James Mumford on THERAPY beyond good and evil
Kit Wilson on READING ourselves to death
Laurence Scott on why hell is OURSELVES

Alan Rome ~ *Star Trek* into sadness
Gabrielle Bauer ~ Precautionary peril
Paul Dicken ~ AI & HR's unholy union
John Konicki & James Pethokoukis ~ Do Americans care about space?

NUMBER 68 — SPRING 2022 — \$10.00
THENEWATLANTIS.COM

Many would say that it was the Reformation itself that did away with fake news





Johann Tetzel – Source: Britannica



Mestre de Vallbona de les Monges, Retaule del corpus Christi (c. 1335), MNAC (National Museum of Catalan Arts)

To a religious observer living through the beginning of the Reformation, all this might have appeared as the end of an era, and the beginning of a threatening period of heterodoxy, heresies, and confusion



NOVVS
MALLEVS
MALEFICARVM SVB
QVAESTIONE DE STRIGIBVS
SEV MALEFICIS, R. P. F. BARTHO-

lomxi Spinci, Ord. Przd. Theologiae
Profesa. Sacrae Palatii Aposto-
lici Magistri dignissimi.

UNA CVM TRACTATV DE
Pracminentia Sacrae Theologiae, & quadru-
plici Apologia de Lamijs con-
tra Penzinibium.



COLONIA,
Apud Maternum Cholinum.
M. D. LXXII.

Those who lament the death of truth should instead acknowledge the end of a monopoly system

Trump's false or misleading claims total 30,573 over 4 years

Analysis by Glenn Kessler, Salvador Rizzo and Meg Kelly
January 24, 2021 at 3:00 a.m. EST



The Washington Post
Democracy Dies in Darkness

A pandemic of lies?
Get the facts straight!

Better science communication!
More independent fact-checking!

THE NEW ATLANTIS

A JOURNAL OF TECHNOLOGY & SOCIETY

REALITY: A POST-MORTEM

♦ Whither Consensus? ♦ Life in an Alternate Reality Game ♥

A new essay series by *Jon Askonas*

Saving the Real

Andrea Saltelli & Daniel Sarrewitz on why the 95 THESES are back

Alan Jacobs on DEMONS and why we're all going nuts

David Bentley Hart on minds in SIMULATED WORLDS

James Mumford on THERAPY beyond good and evil

Kit Wilson on READING ourselves to death

Laurence Scott on why hell is OURSELVES

Alan Rome ~ *Star Trek* into sadness

Gabrielle Bauer ~ Precautionary peril

Paul Dicken ~ AI & HR's unholy union

John Konichi & James Pethokoukis ~ Do Americans care about space?

NUMBER 68 - SPRING 2022 - \$10.00

THE NEW ATLANTIS.COM

Who does the
opening?

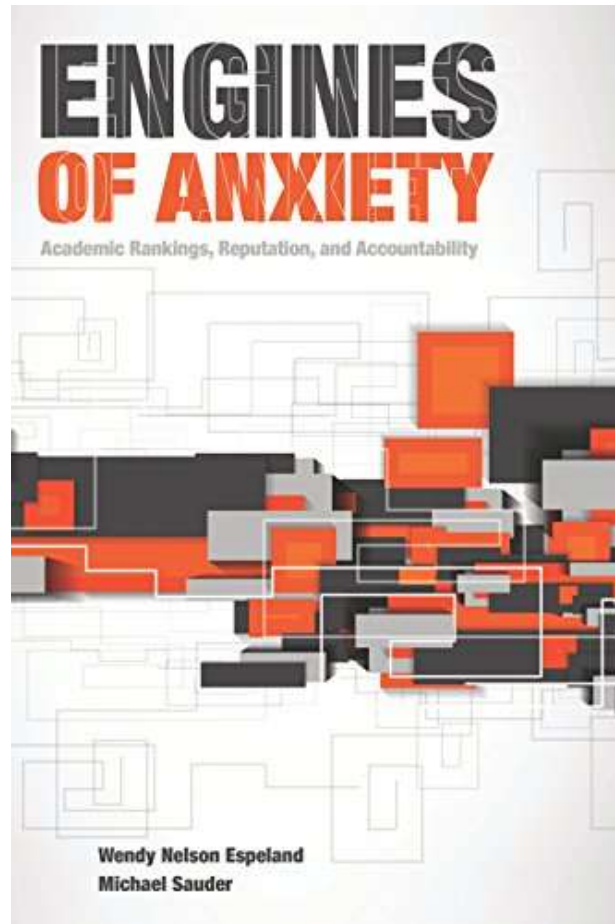
Open science as part of a larger reconfiguration of research along the objectives of a neoliberal project of marketization of science and higher education



IMPLAUSIBLE DREAM



JAMES H. MITTELMAN



JUAN PABLO PARDO-GUERRA

**THE
QUANTIFIED
SCHOLAR**

How Research
Evaluations
Transformed
the British
Social Sciences



Dissenting
view



… marketization of science and higher education

Smashing the glasshouse. Diminishing the prestige of measures of higher education

AUTHORS

Andrea Saltelli, Alexandra Theben, [Rosario Scandurra](#)

AUTHOR ASSERTIONS

Conflict of Interest: No ▼

Public Data: No ▼

Preregistration: No ▼

Predatory publishing?



Credit: David Parkins, Nature,
<https://www.nature.com/articles/d41586-019-03759-y>

NEWS • 08 FEBRUARY 2021

Hundreds of ‘predatory’ journals indexed on leading scholarly database

Scopus has stopped adding content from most of the flagged titles, but the analysis highlights how poor-quality science is infiltrating literature.

[Dalmeet Singh Chawla](#)

Predatory: cloning existing journals

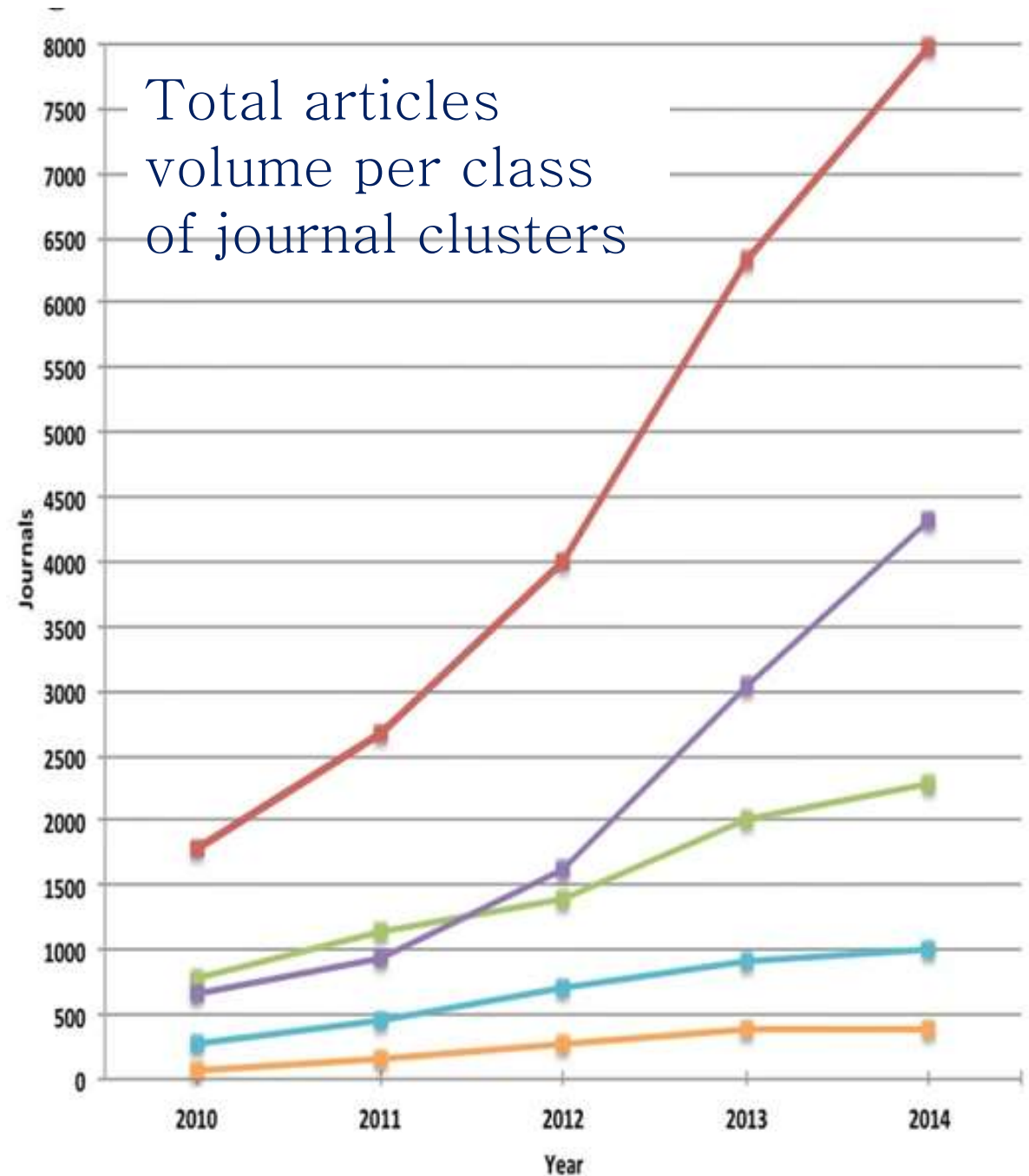


Recent cases:

- Talent Development and Excellence,
- Transylvanian Review
- Test Engineering and Management

<https://retractionwatch.com/2021/05/26/how-hijacked-journals-keep-fooling-one-of-the-worlds-leading-databases/>

C. Shen and B.-C. Björk, “‘Predatory’ open access: a longitudinal study of article volumes and market characteristics,” BMC Med., vol. 13, no. 1, p. 230, Dec. 2015.



Opinion

Peer review and scientific publishing

Thu 13 Sep 2018

Scientific publishing is a rip-off. We fund the research - it should be free

George Monbiot



Those who take on the global industry that traps research behind paywalls are heroes, not thieves





I. Graber-Stiehl, “Science’s pirate queen,” *Verge*, Feb-2018.



Kazakhstani scientist
Alexandra Elbakyan



The long read

Is the staggeringly profitable business of scientific publishing bad for science?

Elsevier profits 2010 = £724m on £2bn revenue: a 36% margin – higher than Apple, Google, or Amazon

Stephen Buranyi, The Guardian, 27 Jun 2017.



A 2005 Deutsche Bank report referred to it as a “bizarre” “triple-pay” system, in which “the state funds most research, pays the salaries of most of those checking the quality of research, and then buys most of the published product”

Stephen Buranyi, The Guardian, 27 Jun 2017.

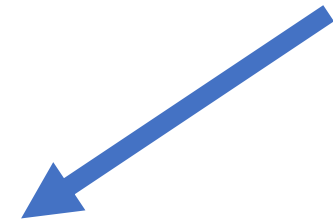
Open access
movement
(Plan S etc.)



Publishers multiply
their titles by creating
new OA journals



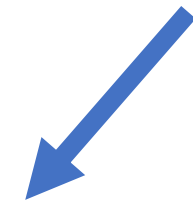
Which favours the
mimetic chances of
predatory publishers



Publishers increase
their already
incredible profits



OA titles (predatory
and non) need to
accept more articles
to fund themselves



The abundance of
OA titles plays into
the publish or perish
zeitgeist

Wrapping up (1)

Open science suffers from an ideological commitment to the Cartesian Dream and ignores a host of serious pathologies of science as a social enterprise that would need more of our attention



Is this the real
'transition' taking
place?

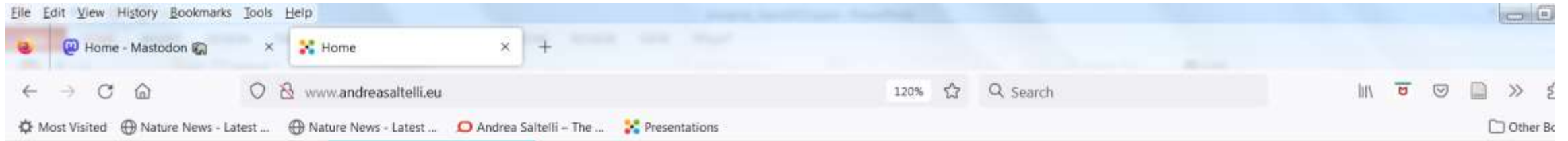
Wrapping up (2)

The problem in implementation of open science are not just the most openly suspected predatory publishers (OMICS, WASET, Bentham Open...) but

- a) those publishers in the grey area whose practices ‘borrow’ from the predatory (MDPI, Frontiers...)
- b) The established publishers that turn open science into an occasion of even larger profits (e.g. Springer-Nature portfolio of 2,900 titles)

Regulatory capture is an important issue

More material at www.andreasaltelli.eu



HOME ABOUT ME PUBLICATIONS NEWS & VIDEOS RESOURCES

Coming Out Soon: The politics of modelling



Praise for the volume

"A long awaited examination of the role —and obligation —of modeling."

Nassim Nicholas Taleb, Distinguished Professor of Risk Engineering, NYU Tandon School of Engineering. Author, of the 5 -volume series *Incerto*.

"A breath of fresh air and a much needed

Mastodon Toots by

@AndreaSaltelli



AndreaSaltelli

2023/4/18 17:24

"Kaufman, who was until recently a senior climate economist in the White House, questioned the need for the government to set a single price. Regulators should stop "pretending we

The ethos of open science:
CUDOS, by R.K. Merton, a
system of universal norms



Robert K. Merton

R. Merton, *The sociology of science: Theoretical and empirical investigations*, 1973.

Communalism – the common ownership of scientific discoveries, according to which scientists give up intellectual property rights in exchange for recognition and esteem (Merton actually used the term Communism, but had this notion of communalism in mind, not Marxism);

Universalism – according to which claims to truth are evaluated in terms of universal or impersonal criteria, and not on the basis of race, class, gender, religion, or nationality;

Disinterestedness – according to which scientists are rewarded for acting in ways that outwardly appear to be selfless;

Organized Skepticism – all ideas must be tested and are subject to rigorous, structured community scrutiny.

NORMS AND COUNTER-NORMS IN A SELECT GROUP OF THE APOLLO MOON SCIENTISTS: A CASE STUDY OF THE AMBIVALENCE OF SCIENTISTS*

IAN I. MITROFF

American Sociological Review 1974, Vol. 39 (August): 579-595

This paper describes a three and a half year study conducted over the course of the Apollo lunar missions with forty-two of the most prestigious scientists who studied the lunar rocks. The paper supports the Merton-E. Barber concept of sociological ambivalence, that social institutions reflect potentially conflicting sets of norms. The paper offers a set of counter-norms for science, arguing that if the norm of universalism is rooted in the impersonal character of science, an opposing counter-norm is rooted in the personal character of science. The paper also argues that not only is sociological ambivalence a characteristic of science, but it seems necessary for the existence and ultimate rationality of science.

- Solitariness (secrecy, miserism) is often used to keep findings secret in order to be able to claim patent rights...

Instead of Communalism

- Particularism [...] a real issue, particularly when you consider the ratio of researchers in rich countries compared with those in poor countries

Instead of Universalism

- Interestedness arises because scientists have genuine interests at stake in the reception of their research...
Instead of Disinterestedness

- Dogmatism because careers are built upon a particular premise (theory) being true...

Instead of Organized
Skepticism

Journal of Empirical Research on Human Research Ethics

Normative Dissonance in Science: Results from a National Survey of U.S. Scientists

Melissa S. Anderson, Brian C. Martinson, Raymond De Vries

First Published December 1, 2007 | Research Article | [Find in PubMed](#)

<https://doi.org/10.1525/jer.2007.2.4.3>

Survey responses from 3,247 mid- and early-career scientists who had research funding from the U.S. National Institutes of Health

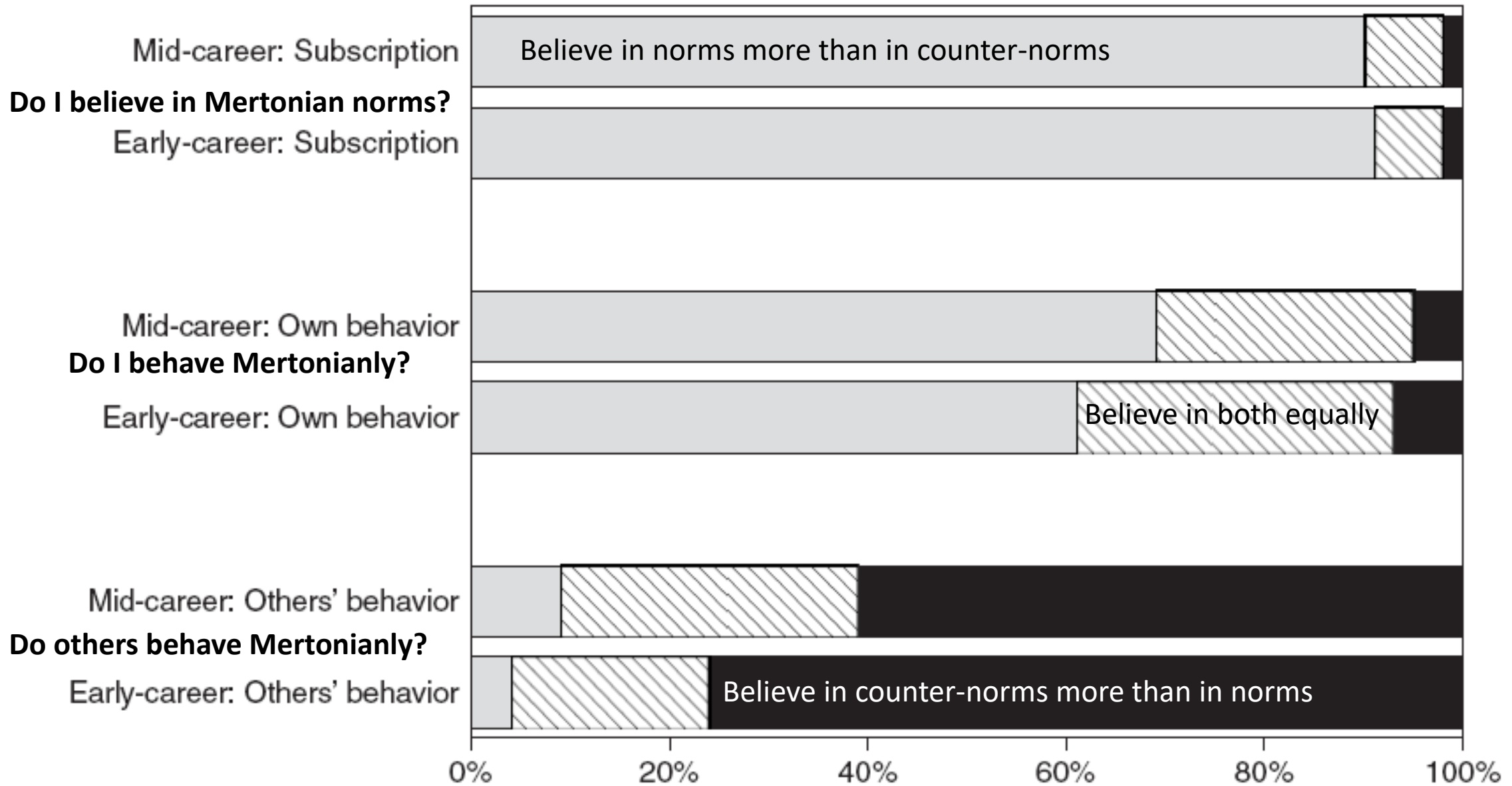
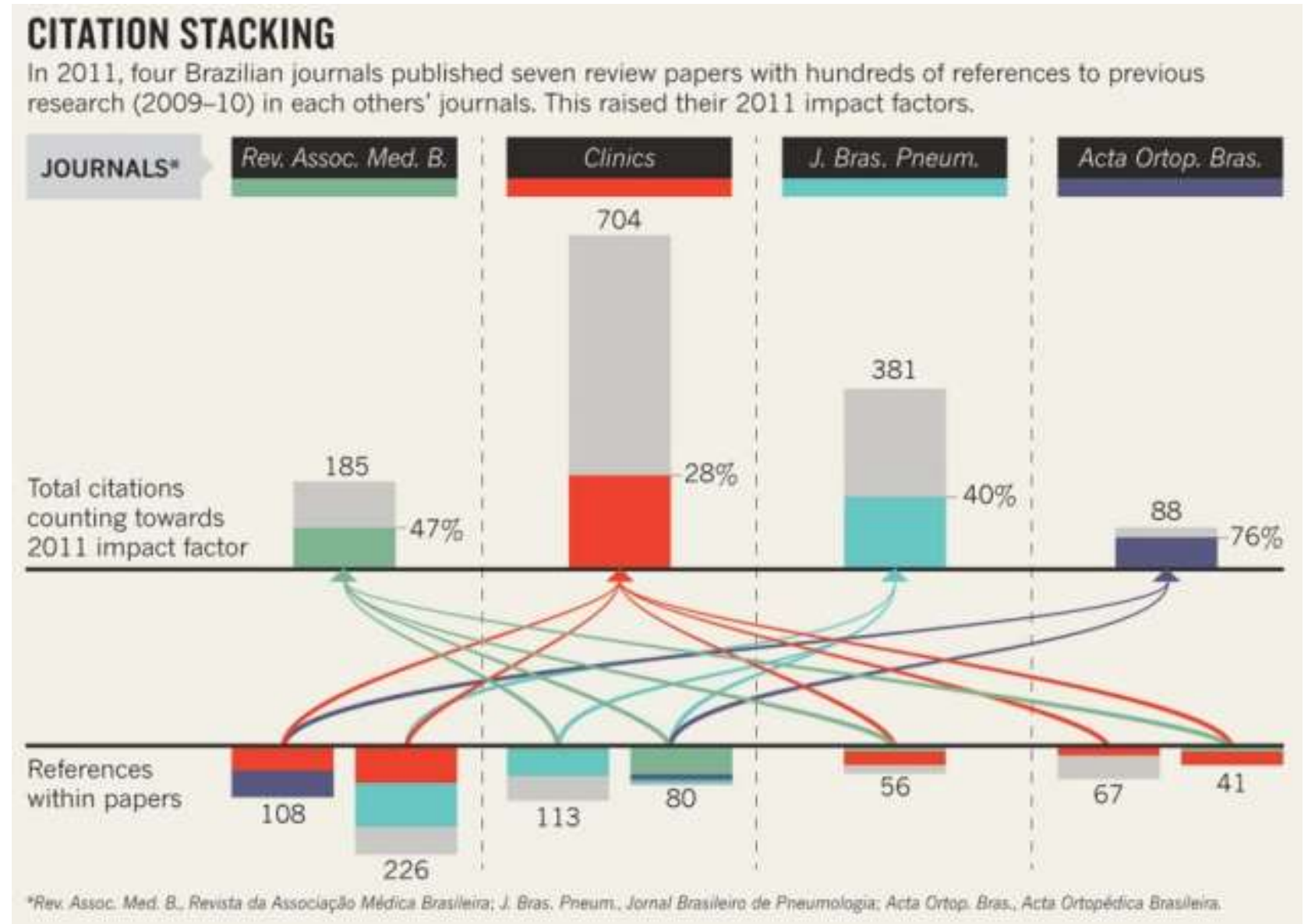


FIG. 3. Norm versus Counternorm Scores: Percent with Norm > Counternorm (dotted), Norm = Counternorm (striped), Norm < Counternorm (solid).

Use and abuse of metrics: from self-citation to citation cartels to citation stacking



Richard Van Noorden, 2017, Brazilian citation scheme outed. Thomson Reuters suspends journals from its rankings for 'citation stacking'. Nature, 27 August 2013



Research Policy

Volume 49, Issue 1, February 2020, 103831



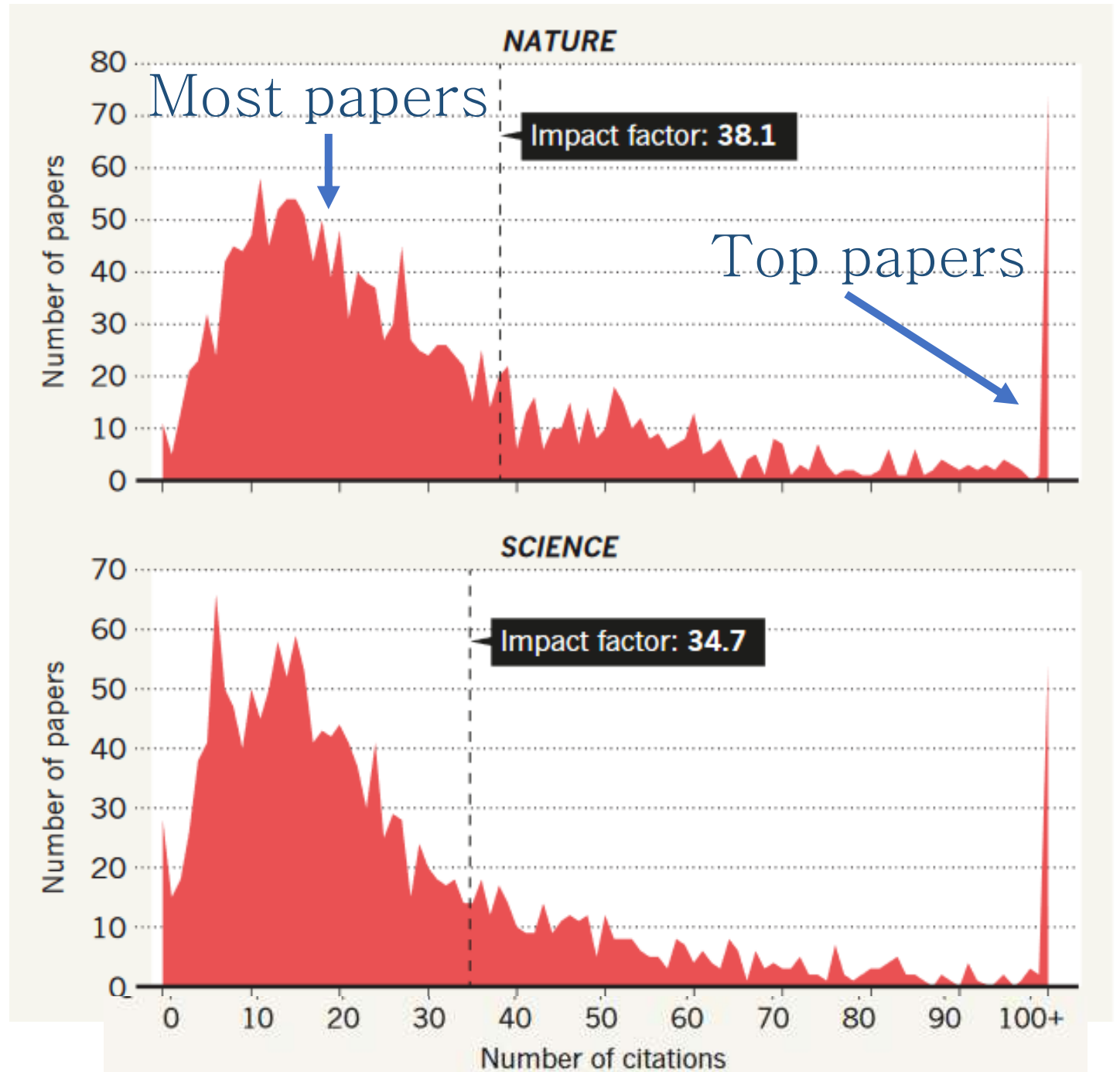
How to avoid borrowed plumes in academia

Margit Osterloh  , Bruno S. Frey 

The impact factor is a misleading measure
of the importance of an individual article.

The average paper is cited much less than the journal's impact factor

Source: E. Callaway, 2014
Publishing elite turns against impact factor, Nature, 535, 210–211.



Predatory publishers (the Achilles heel of the APC model)

Predatory open access publishers

<https://beallslist.net>

Beall was threatened by Omics International with a \$1billion lawsuit



Jeffrey Beall,
librarian,
University
of Colorado,
Denver

Dear Andrea Saltelli,

I hope everything is going well.



GAVIN PUBLISHERS

Google Cus

We cordial

As you bei

If you have

Hoping

HOME

OPEN ACCESS

GAVIN JOURNALS ▾

GAVIN CONFERENCES

GUIDELINES ▾

SUBMIT MANUSCRIPT

E-BOOKS

MEMBERSHIP

CAREERS

SUBMIT MANUSCRIPT



▶ ISSN: 2575-7091

Food & Nutrition Jou

*Genamics – JournalSeek

*Academic Keys

*ResearchBib - Academic Research Index

*Free Medical Journals - Geneva Foundation for Medical Education and Research

*International Innovative Journal Impact Factor (IIJIF)

*Al-Azhar University

*Open J-Gate

* Directory of Journals indexing

About the Journal

Journal Impact Factor 1.2*

Is on Beall's list ←