

# some developments of journal peer review

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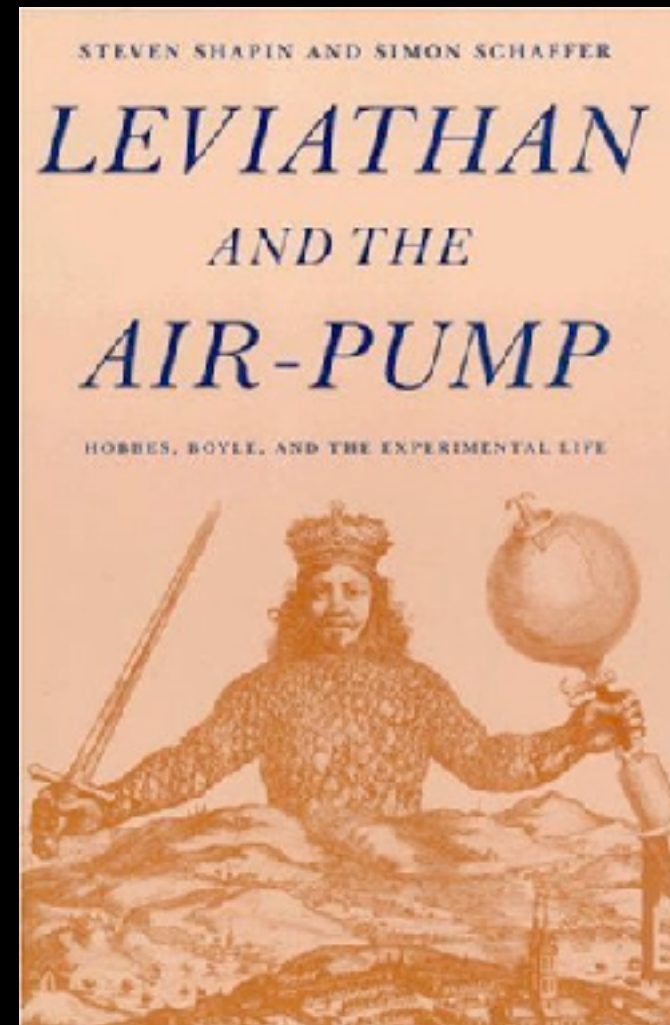
# first steps

PHILOSOPHICAL  
TRANSACTIONS:  
GIVING SOME  
ACCOMPT  
OF THE PRESENT  
Undertakings, Studies, and Labours  
OF THE  
INGENIOUS  
IN MANY  
CONSIDERABLE PARTS  
OF THE  
WORLD.

Vol I.

For Anno 1665, and 1666.

In the SAVOY,  
Printed by T. N. for John Martyn at the Bell, a little with-  
out Temple-Bar, and James Allestry in Duck-Lane,  
Printers to the Royal Society.



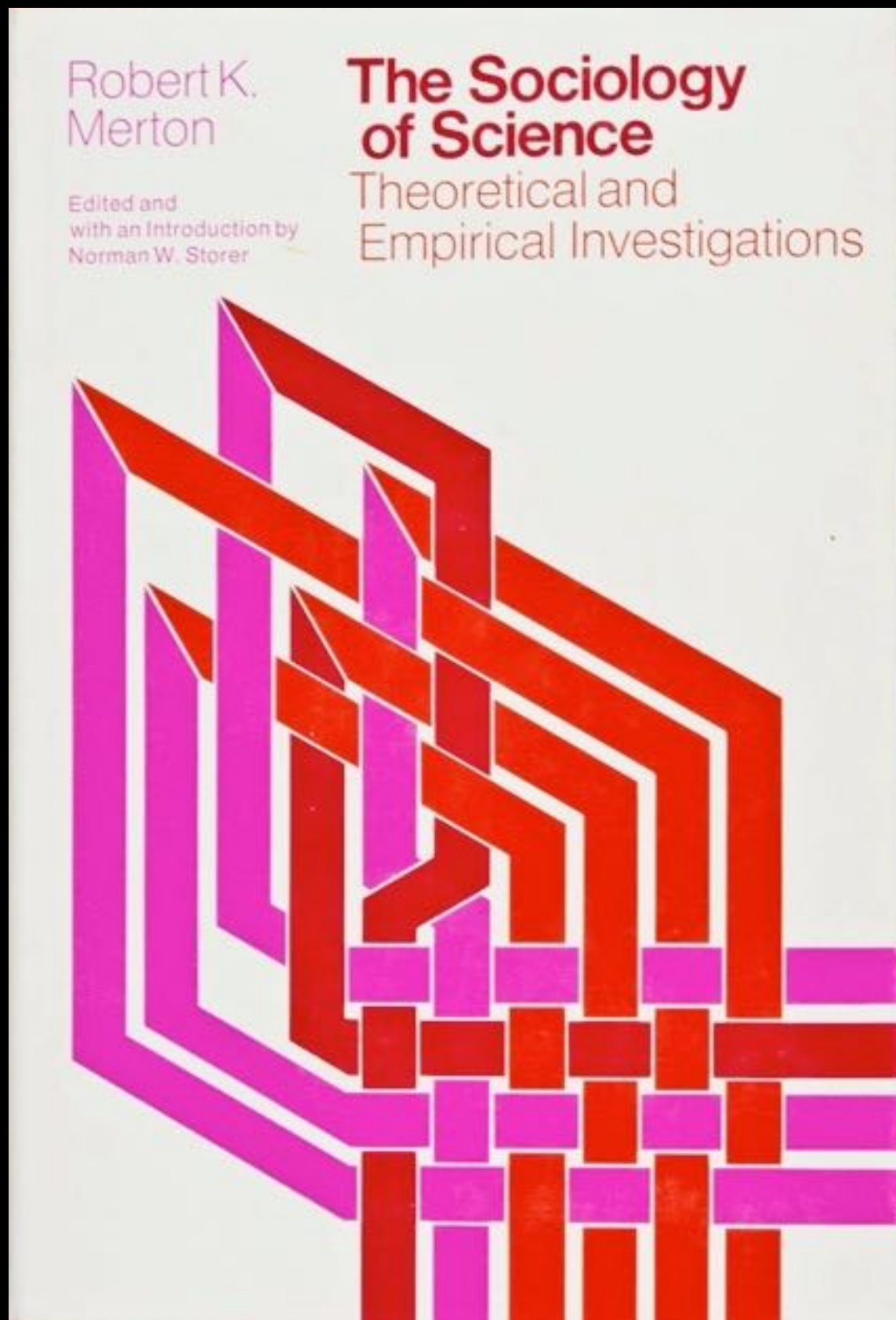
## Shaping Written Knowledge

The Genre and Activity of  
the Experimental Article in Science

Charles Bazerman



# set of values



**13**

The Normative  
Structure of  
Science

1942

**Communalism**

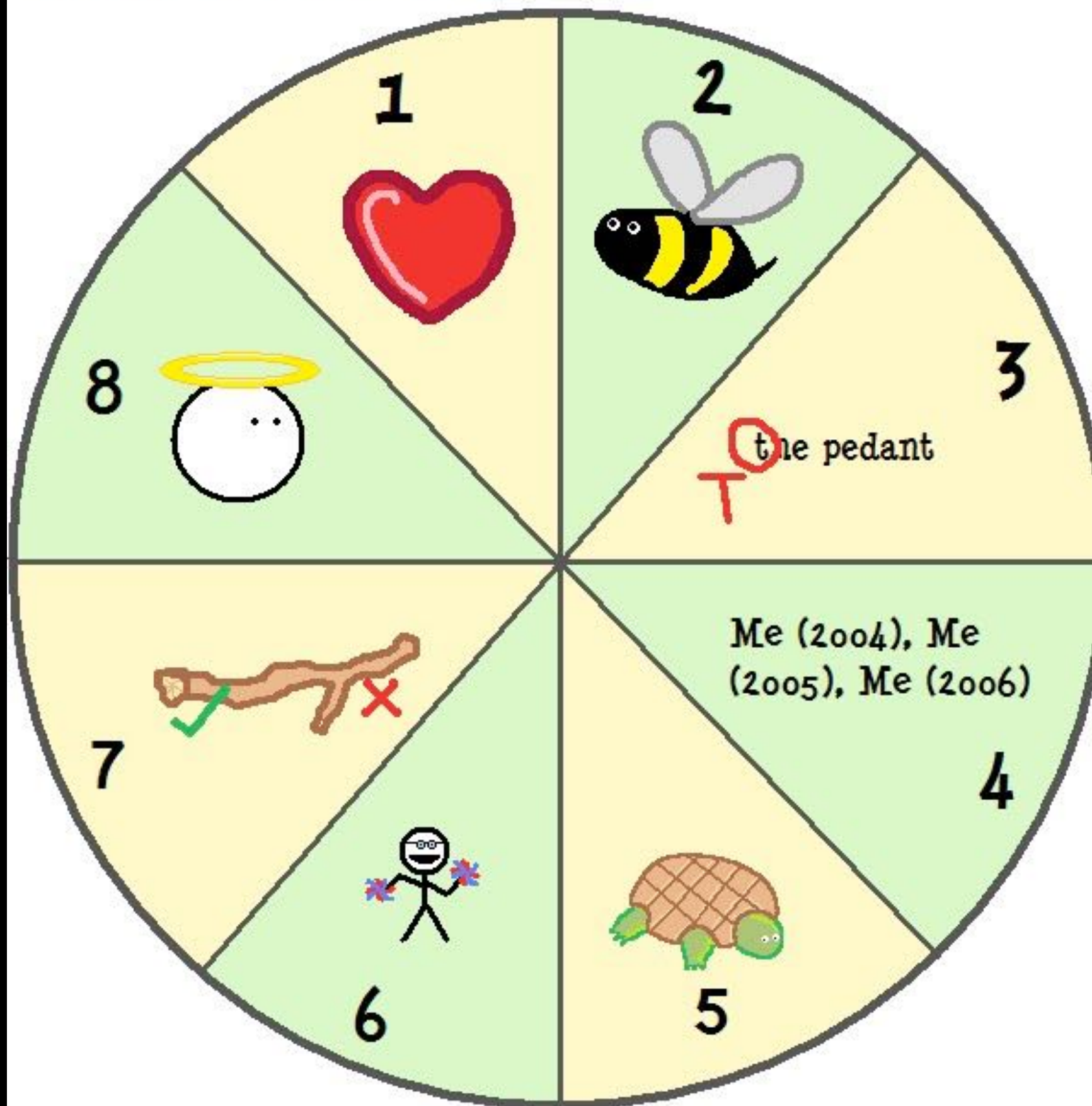
**Universalism**

**Disinterestedness**

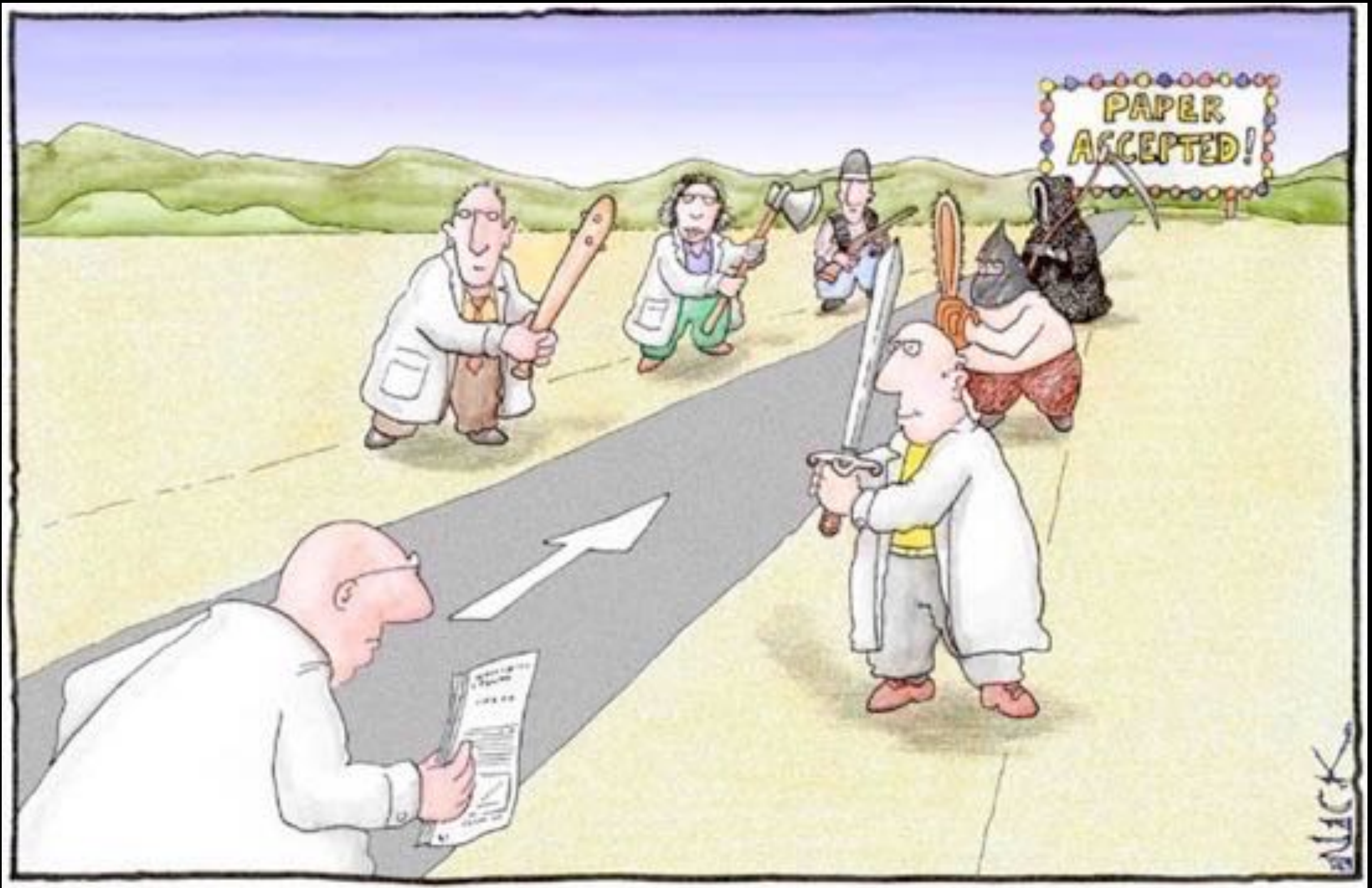
**Organized Skepticism**



# The Wheel of Peer Review



# peer evaluation in science





# THE ROYAL SOCIETY AND THE PREHISTORY OF PEER REVIEW, 1665–1965\*

NOAH MOXHAM

*School of History, University of Kent*

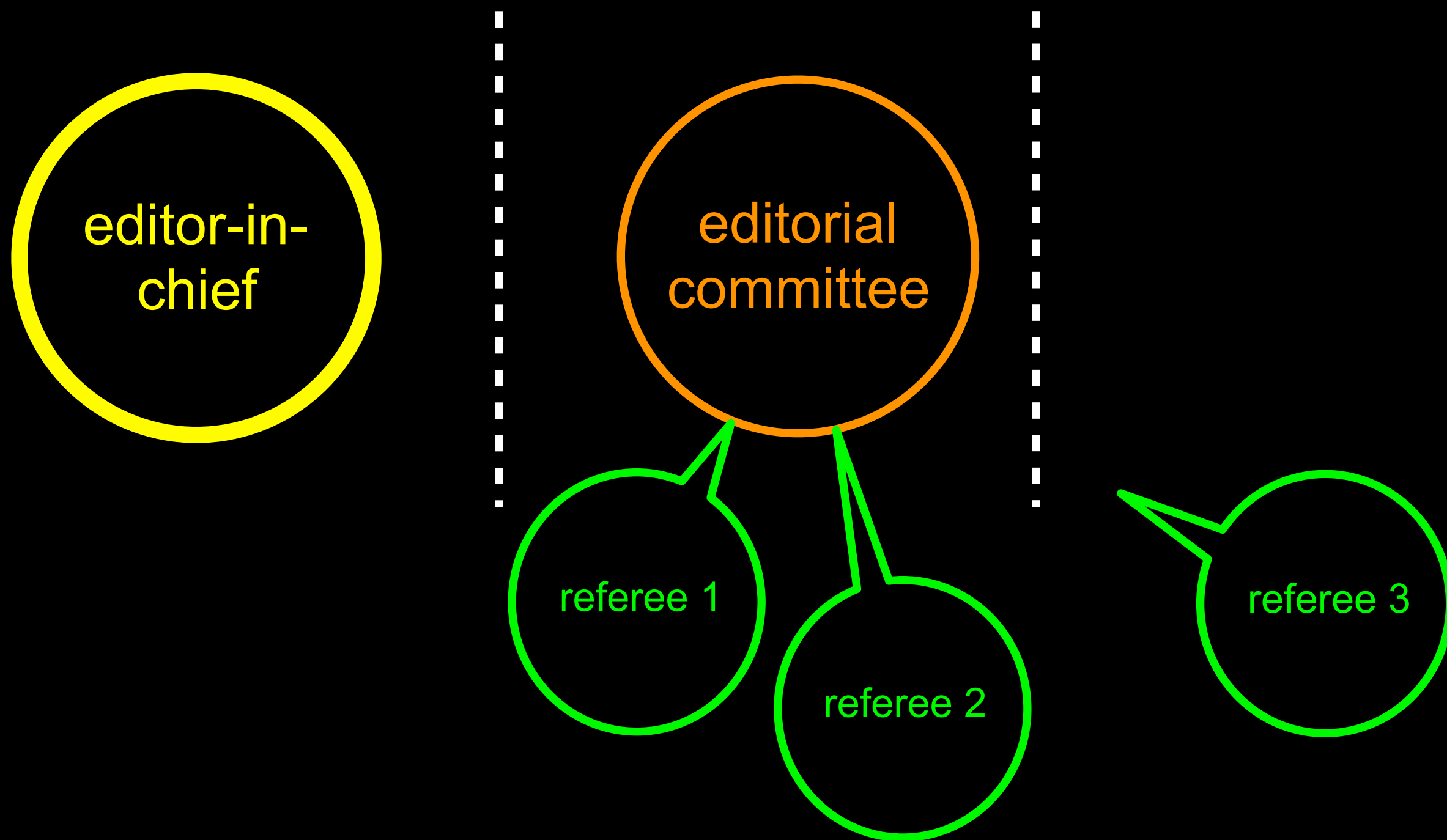
AND

AILEEN FYFE

*School of History, University of St Andrews*

**ABSTRACT.** *Despite being coined only in the early 1970s, 'peer review' has become a powerful rhetorical concept in modern academic discourse, tasked with ensuring the reliability and reputation of scholarly research. Its origins have commonly been dated to the foundation of the Philosophical Transactions in 1665, or to early learned societies more generally, with little consideration of the intervening historical development. It is clear from our analysis of the Royal Society's editorial practices from the seventeenth to the twentieth centuries that the function of refereeing, and the social and intellectual meaning associated with scholarly publication, has historically been quite different from the function and meaning now associated with peer review. Refereeing emerged as part of the social practices associated with arranging the meetings and publications of gentlemanly learned societies in the late eighteenth and nineteenth centuries. Such societies had particular needs for processes that, at various times, could create collective editorial responsibility, protect institutional finances, and guard the award of prestige. The mismatch between that context and the world of modern, professional, international science, helps to explain some of the accusations now being levelled against peer review as not being 'fit for purpose'.*

# who are the judges?



# embracing or rejecting reviewers



## Einstein Versus the *Physical Review*

A great scientist can benefit from peer review, even while refusing to have anything to do with it.

Dear Sir,

We (Mr. Rosen and I) had sent you our manuscript for publication and had not authorized you to show it to specialists before it is printed. I see no reason to address the—in any case erroneous—comments of your anonymous expert. On the basis of this incident I prefer to publish the paper elsewhere.

*Respectfully,*

P.S. Mr. Rosen, who has left for the Soviet Union, has authorized me to represent him in this matter.

Kennefick D., “Einstein Versus The Physical Review”,  
*Physics Today*, 2005, 58(9), p. 43-48



# anonymized authors

## NOTICE TO CONTRIBUTORS

### Preparation of Articles

As an experiment in the evaluation of articles, all papers will now be circulated to the assistant editors and judged without name or institutional identification. It will be helpful if contributors to the *Review* will attach a cover page giving the title, author's name and institutional affiliation. The first page of the paper should bear the title as a means of identification, but not name and institution.

*American Sociological Review*, 1955, vol. 20, n° 3, p. 341

Whether, as Professor Cahnman believes, papers of “famous colleagues” always will be “accepted on sight” I don’t know, and frankly I don’t mind if they are. I think a paper by a prominent author *should* be given priority—unless the editor has serious doubts about its quality.

reviewers were not anonymous. Furthermore, we frequently forget (despite that fact that we are sociologists) that a man’s name is important (whether it is widely known or not). It can identify his biases and perspectives (sources of professional training, previous work, occupational experiences, etc.) and, therefore, can be used as a basis for judging the reliability and relevance of what he says. This is true for both authors and *reviewers*. It is important to know whether comments are coming from a functionalist, a Durkheimian, a Weberian, a Marxist, a professional researcher, a theoretician, a systems analyst, a positivist, and the like.

Lowry R.P., 1967. “Communications to the editors”, *The American Sociologist* 2(4), 220.



# anonymized authors

Moody L. Coffman suggests that articles be sent to reviewers anonymously. This is an excellent idea and has been proposed many times. Unfortunately it is impossible. Removing the name and affiliation of the author does not make a manuscript anonymous. A competent reviewer can tell at a glance where the work was done and by whom or under whose guidance. One must also remove all references to previous work by the same author, all descriptions of special equipment and other significant parts of the paper. Nothing worth judging or publishing would be left.

S. A. Goudsmit  
Managing Editor,  
*American Physical Society*

Despite removal of author and institutional affiliation from a manuscript, no phenomenal deductive powers are required, for example, to guess the authorship of an article that begins, "Earlier work (Coffman, 1962, Coffman and Moody, 1965) has shown . . ." The *Journal of Speech and Hearing Research*, for which I occasionally review, indeed experimented with this scheme last year but quickly abandoned it.

W. Dixon Ward  
*University of Minnesota*

Ward, W.D., Goudsmit, S.A., 1967. Reviewer and author anonymity. *Physics Today* 20, 1, 12.

# anonymous reviewers as abusers

## Rights, wrongs and referees

Anonymity in the refereeing of scientific papers is difficult to justify. Greater openness would have many merits—not least in curbing the abuses that are encouraged by the present system

Jones R., 1974, *New Scientist*, vol. 61, n° 890, p. 758-759.





# anonymous reviewers as guardians



constructive

ethical

advisor

readability

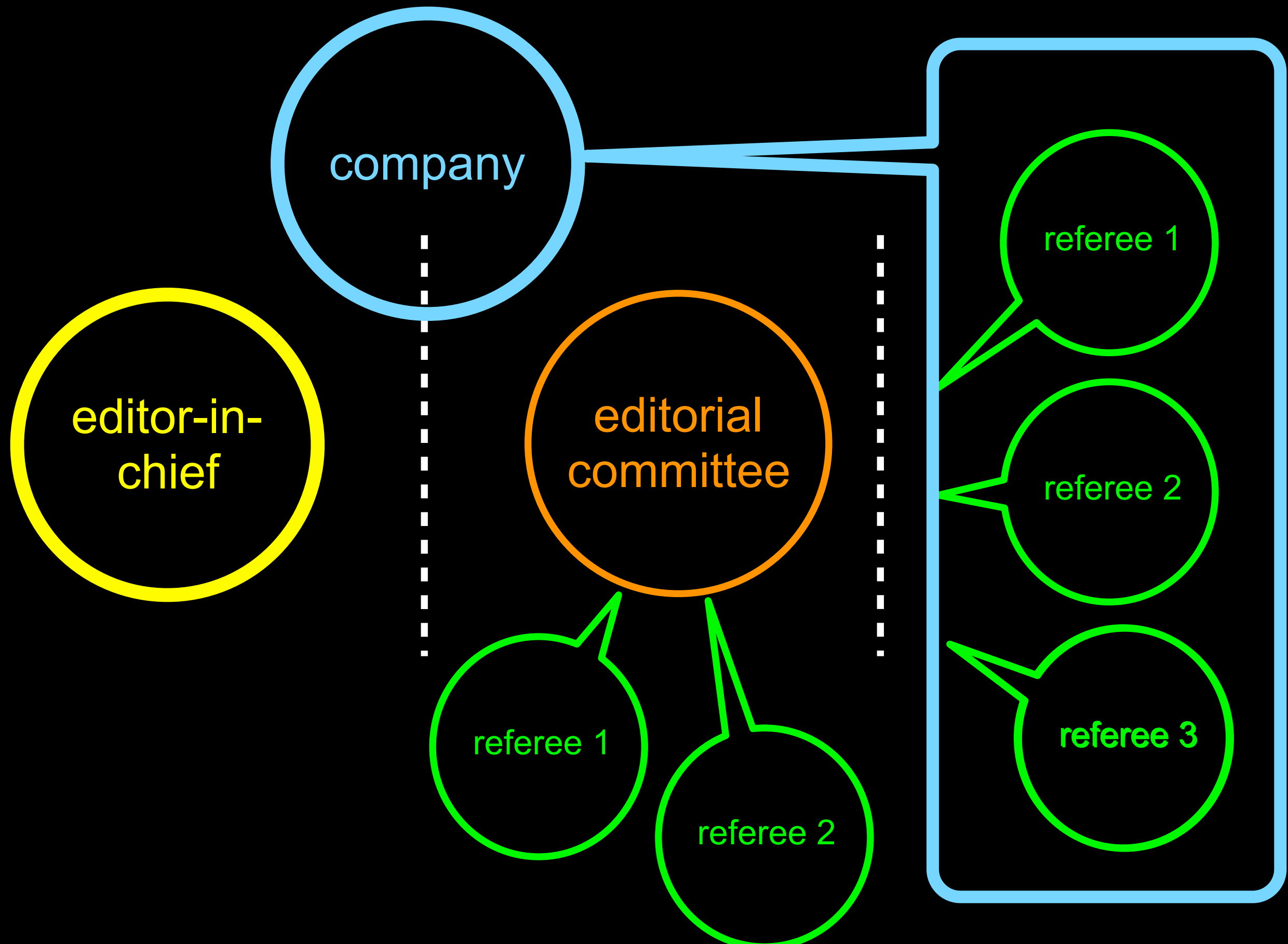
strong  
criticisms

protection

# objectivity vs. publicity

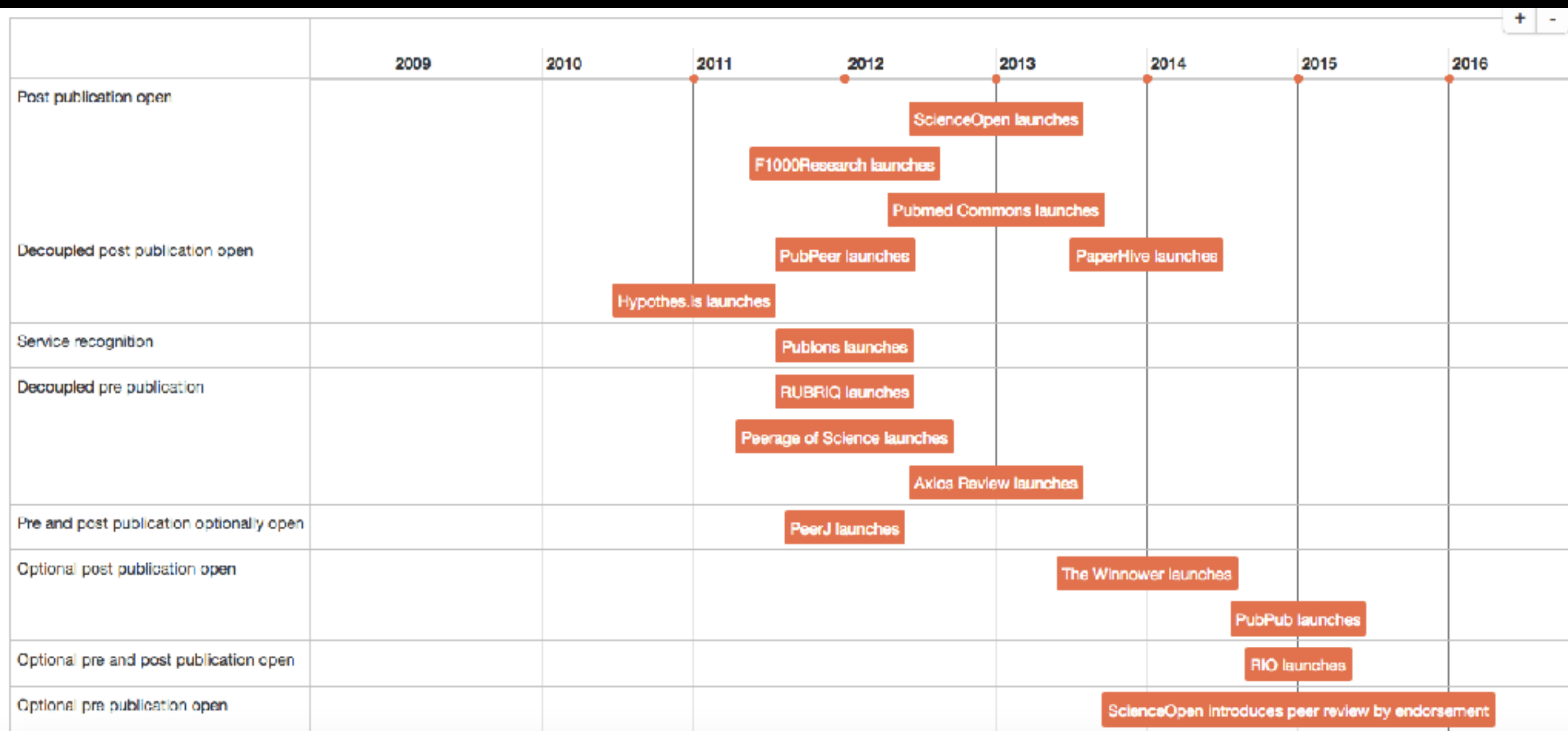
	Reviewers	
	anonymized	identified
Auteurs		
anonymized	“double blind”	“blind review”
identified	“single blind”	“open peer review”

# who are the judges?





# The “revolution” of peer review



<https://dgraziotin.shinyapps.io/peerreviewtimeline/>

# F1000 Research



RESEARCH ARTICLE

## Major approaches in early diagnostics of common variable immunodeficiency in adults in Moscow [version 1; referees: 2 approved, 1 not approved]

Alexander V Karaulov, Irina V Sidorenko, Anna S Kapustina

[+ Author affiliations](#)

**Grant information:** The author(s) declared that no grants were involved in supporting this work.

### Abstract

Common variable immunodeficiency (CVID) is a primary immunological disease characterized predominantly by hypogammaglobulinemia. The main clinical manifestations are severe recurrent infections that often lead to structural damage of affected organs. The early start of adequate intravenous immunoglobulin therapy has significantly improved the prognosis of this serious disorder. Patients with CVID are also predisposed to autoimmune and lymphoproliferative complications. This article deals with the features of this primary immunodeficiency in adults. Clinical manifestations, immunological features and treatment concepts were gathered during 21 years of observation of such patients in Moscow. The authors suggest early predictive clinical signs of CVID in adults.



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version 1  
published  
09 nov. 2012

report

report

report

- 1 **Cem Akin**, Brigham & Women's Hospital, USA
- 2 **Anete Grumach**, University of São Paulo Medical School, Brazil
- 3 **Francisco A Bonilla**, Children's Hospital Boston, USA

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# alternative measures

**altmetrics**

## **altmetrics: a manifesto**

NO ONE CAN READ EVERYTHING. We rely on filters to make sense of the scholarly literature, but the narrow, traditional filters are being swamped. However, the growth of new, online scholarly tools allows us to make new filters; these altmetrics reflect the broad, rapid impact of scholarship in this burgeoning ecosystem. We call for more tools and research based on altmetrics.

As the volume of academic literature explodes, scholars rely on filters to select the most relevant and significant sources from the rest. Unfortunately, scholarship's three main filters for importance are failing:



# alternative measures



altmetrics

altmetrics:

NO ONE CAN READ EVERYTHING.  
literature, but the narrow, trad  
of new, online scholarly tools  
the broad, rapid impact of sch  
tools and research based on al

As the volume of academic lit  
most relevant and significant s  
main filters for importance are

plos.org create account sign in

 Subject Areas For Authors About Us Search   
advanced search

## Article-Level Metrics Information

*This page contains information about each of the article-level metrics that we track. Summary tables of 'average usage' are also available, as well as a page containing a technical description of our usage data in particular; and a summary Excel file containing the full data set.*

### Background

At PLOS, we believe that research articles should primarily be judged on their individual merits, rather than on the basis of the journal in which they were published. In March 2009, we inaugurated a program to provide "article-level metrics" on every article across all journals. This suite of relevant indicators of impact helps users determine the value of an article to them and to their scientific community. The regularly updated data fall into the following categories:

- Viewed
- Cited
- Saved
- Discussed
- Recommended

They are described further in the sections below.

Article-Level Metrics (ALMs) leverage the acceleration of research communication made possible by the networked landscape of researcher tools and services. Also by incorporating the manifold ways in which research is disseminated, these article impact indicators are made available rapidly after publication and are continually updated. It is important to note that the behavior of metrics varies by time (and needless to say by field and research area). For example, some metrics tend to accrue slowly over time; some are quicker to do so. Newly published articles will typically show lower levels of activity (for any given metric) for the initial weeks or months after publication than older articles. Further discussion of known limitations to individual metrics is detailed in the section below.

PLOS is committed to the open provision of these metrics; we encourage researchers to investigate and analyze them in new and interesting ways. Therefore, the entire dataset of all ALMs are made available as a summary Excel file. This file will be updated periodically. We also provide an API and accompanying documentation for the automatic retrieval of the full set of ALM data.

### Article-Level Metrics Suite

# article level metrics

Cited ?

SCOPUS

112

crossref

69

PMC

28



ISI Web of  
SCIENCE.

86



Europe  
PubMed  
Central

34

Google  
scholar

Search

# article level metrics

Cited ?

Viewed ?

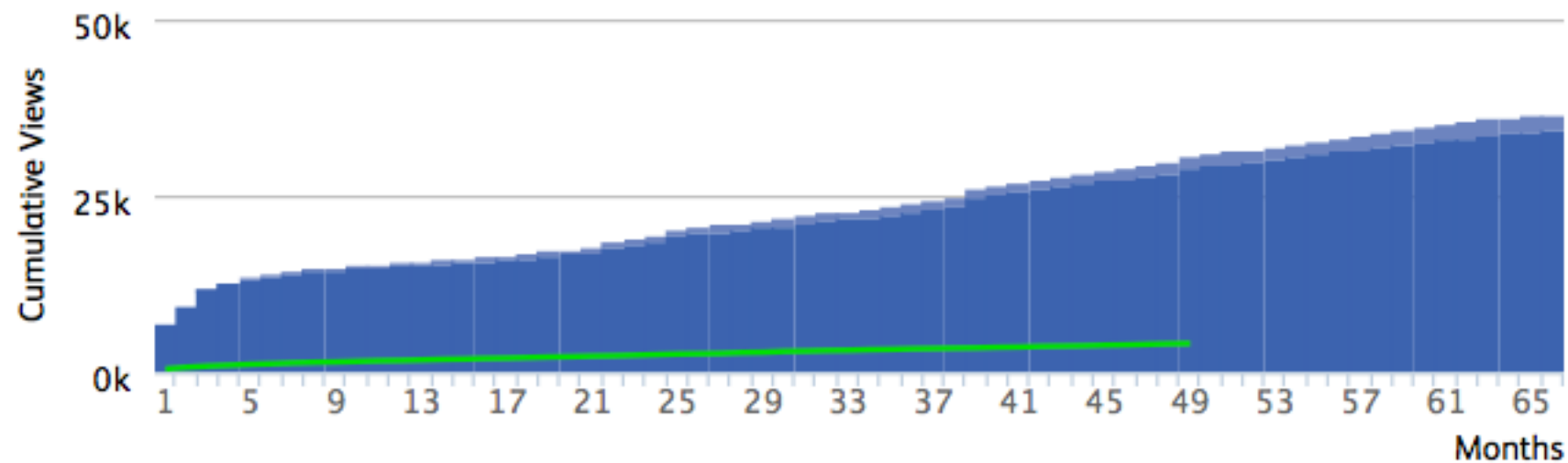
Total Article Views

**36,587**

Apr 21, 2010 (publication date)  
through Sep 29, 2015\*

	HTML Page Views	PDF Downloads	XML Downloads	Totals
PLOS	29,854	4,335	93	34,282
PMC	1,752	553	n.a.	2,305
Totals	31,606	4,888	93	36,587

15.47% of article views led to PDF downloads



■ Compare average usage for articles published in 2010 in the subject area: ?

Behavior

| [Show reference set](#)

\*Although we update our data on a daily basis, there may be a 48-hour delay before the most recent numbers are available. PMC data is posted on a monthly basis and will be made available once received.



# article level metrics

Cited ?

Viewed ?

Total Arti  
**36,587**

Apr 21, 2010  
through Sep

Saved ?



MENDELEY

Individuals

302

Groups

13

315

Cumulative Views

Discussed ?

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WIKIPEDIA  
The Free Encyclopedia

3

twitter

45



Comments

1

\*Although we up  
a monthly basis and will be made available once received.

# flagging published articles

EASST Review 2017 | Vol 36 | No 1

## BEYOND FACT CHECKING: RECONSIDERING THE STATUS OF TRUTH OF PUBLISHED ARTICLES

David Pontille, Didier Torny

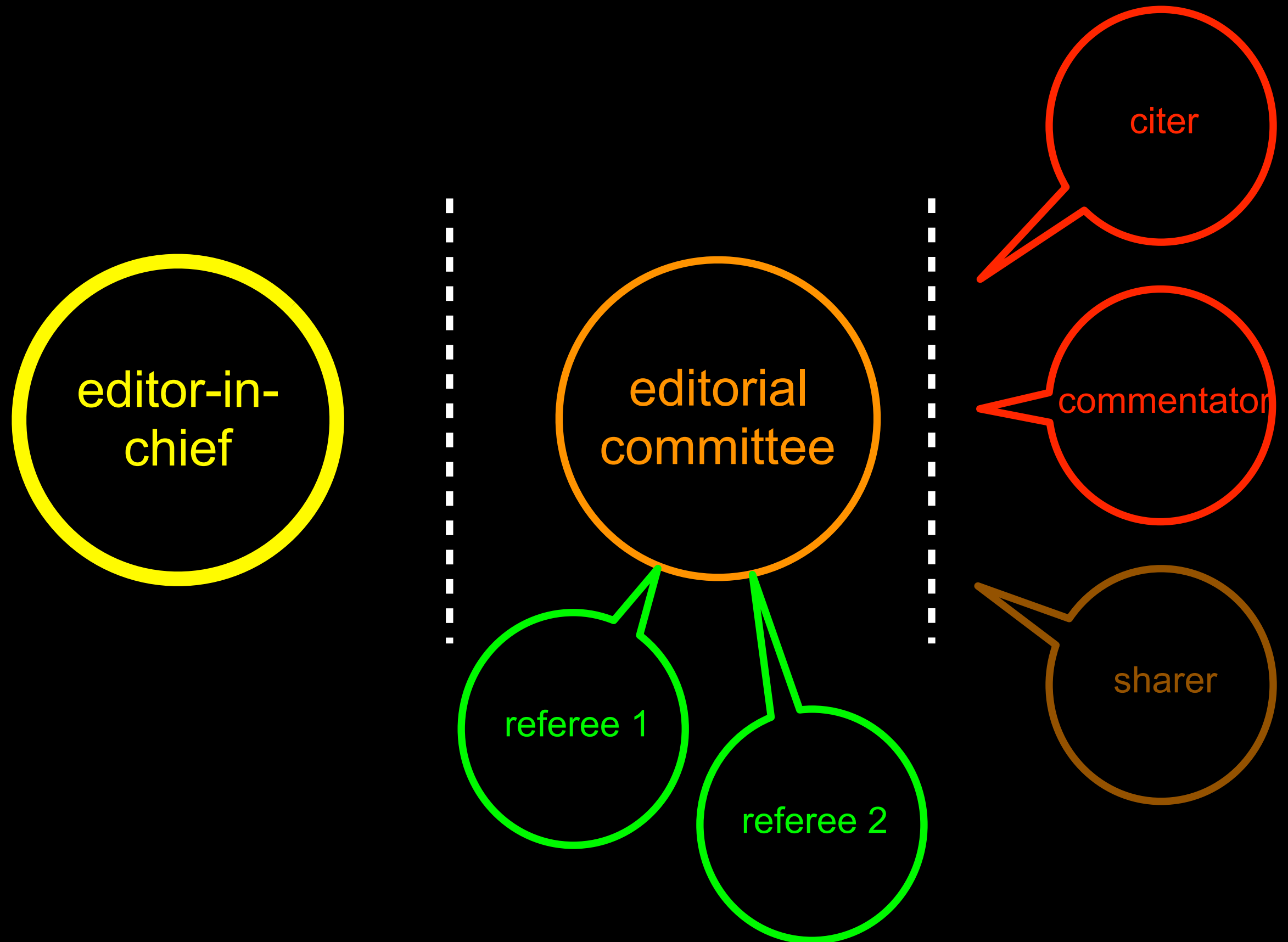
Since the  
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In the last twenty years, three ways of flagging articles have become commonly used by journals: expression of concern, correction, and retraction. These written acts enact peculiar forms of verification that occur alongside, even against, the traditional fact checking process in science. Designed to alert journal readership, they are not meant to test the accuracy of published articles like in usual scientific research or misconduct investigations. Rather, they perform a critical, public judgment about its validity and reliability.

ically designed studies have led to a replication crisis in some experimental disciplines (e.g. psychology, clinical medicine). Simultaneously, the growing industry of "predatory publishing" has reshaped the very definition of a peer-reviewed journal (Djuric, 2015).

In this context, "post-publication peer review" (PPPR) has often been lauded as a solution, its promoters valuing public debate over in-house validation by journals and the judgment of a crowd of readers over the ones of a few selected referees (Pontille and Torny 2015). Along those lines, the public voicing of concerns on a result, a method, a figure or an interpretation by readers, whistleblowers, academic institutions, public investigators or authors themselves have become common-

# readers as judging instances



# nos travaux

Pontille D., Torny D., 2014, **The Blind Shall See! The Question of Anonymity in Journal Peer Review**, *Ada: A Journal of Gender, New Media, and Technology*, n°4,

<https://halshs.archives-ouvertes.fr/halshs-00981277v1>

Pontille D., Torny D., 2015, **From Manuscript Evaluation to Article Valuation: The Changing Technologies of Journal Peer Review**, *Human Studies*, vol. 38(1), p. 57-79.

<https://halshs.archives-ouvertes.fr/hal-01143310v1>

Pontille D., Torny D., 2017, **Beyond Fact Checking: Reconsidering the Status of Truth of Published Articles**, *EASST Review*, vol. 36(1), p. 14-16.

<https://halshs.archives-ouvertes.fr/halshs-01576348v1>

Torny D., 2018, **Pubpeer: vigilante science, journal club or alarm raiser? The controversies over anonymity in post-publication peer review**, PEERE International Conference on Peer Review, March, Rome, Italy.

<https://halshs.archives-ouvertes.fr/halshs-01700198v1>