

PEER REVIEW: WHAT DO EDITORS EXPECT FROM REVIEWERS?

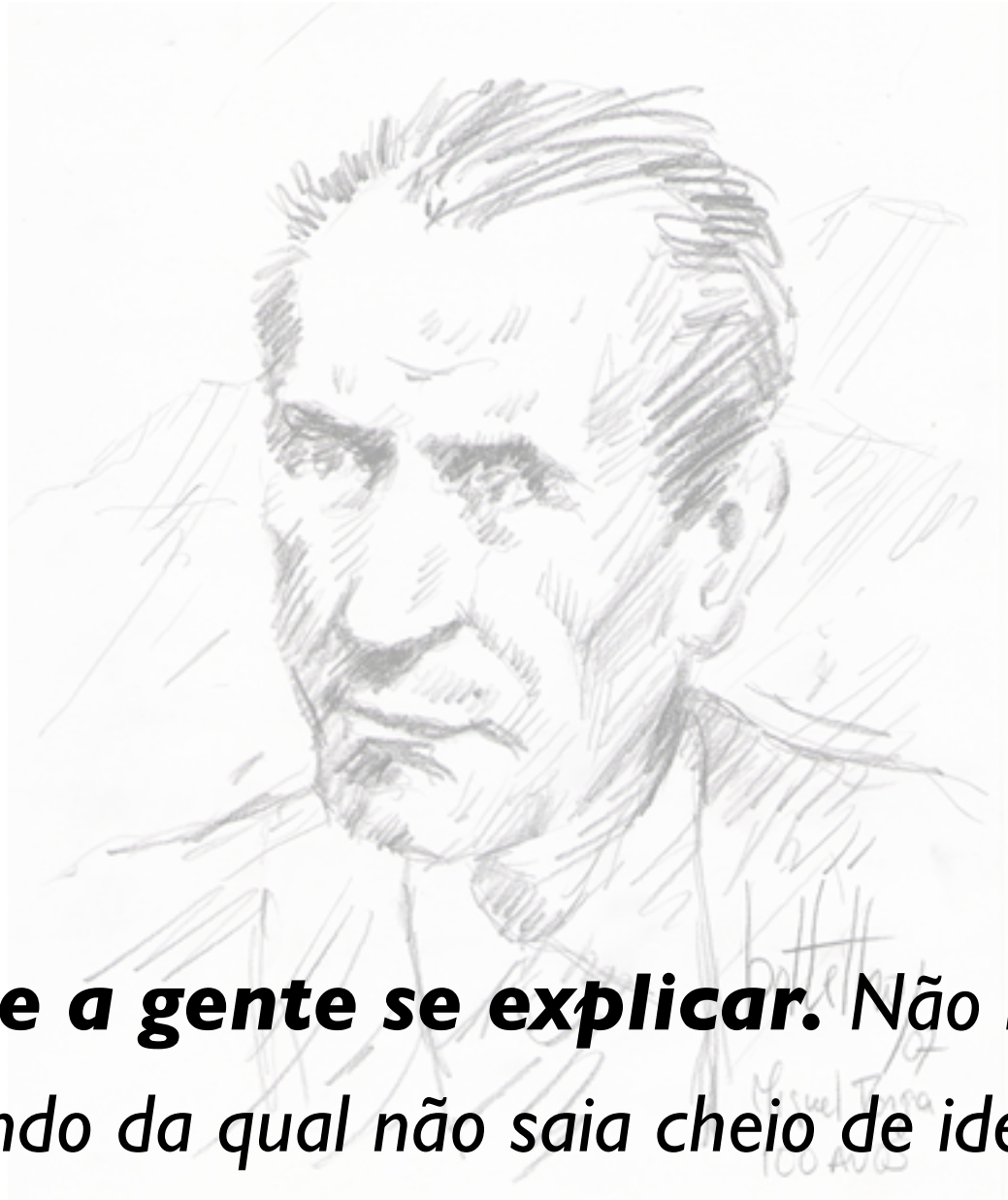
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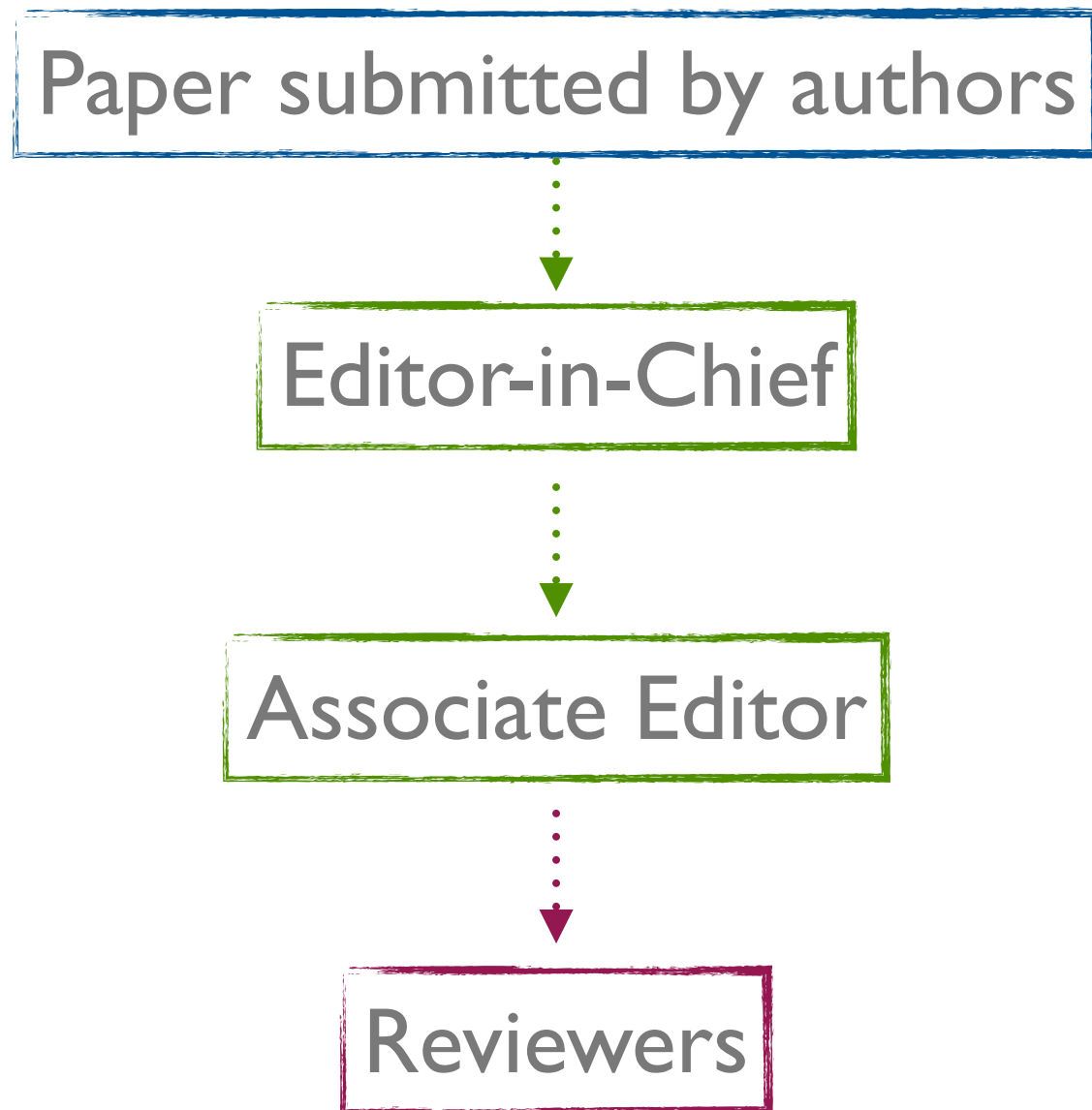




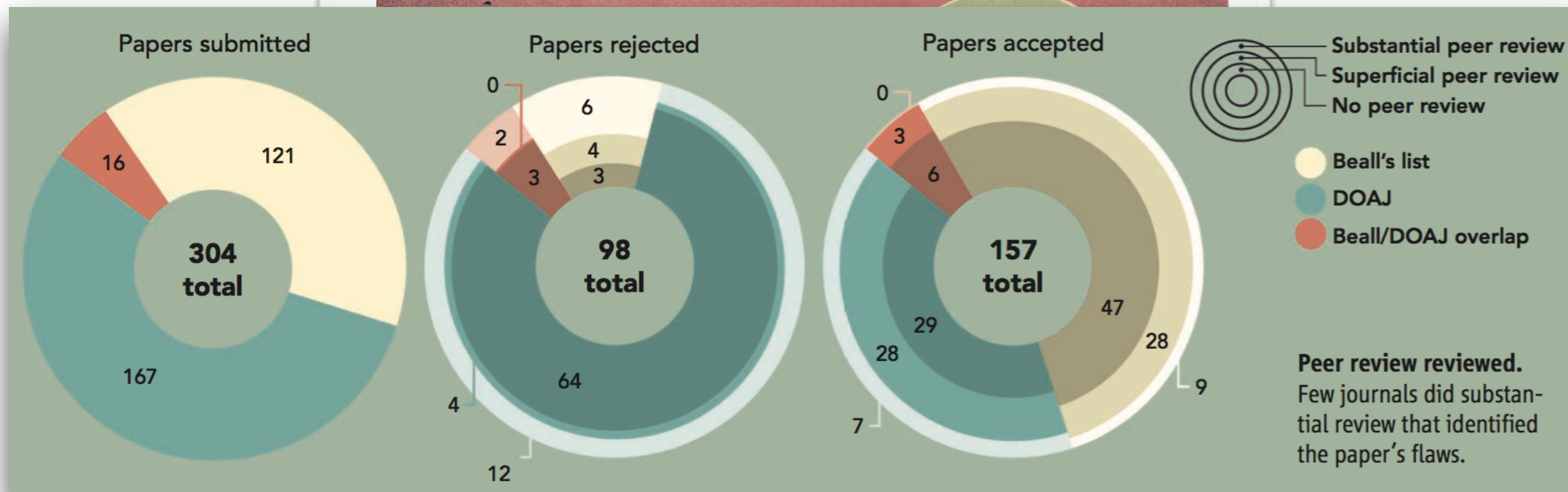
“É difícil, isto de a gente se explicar. Não há conversa em que me empenhe a fundo da qual não saia cheio de ideias que queria pôr sobre a mesa, nítidas e precisas, e que não fui capaz de trazer à luz do dia naquela hora. Só depois de a discussão passada, de o caso arrumado — geralmente pelo adversário—, é que surge no meu espírito a expressão exacta e desejada do que era preciso dizer.”

Miguel Torga (Diário, 1943)

Peer review



“[...] defined as obtaining advice on individual manuscripts from reviewers expert in the field who are not part of the journal’s editorial staff”
(Committee on Publication Ethics)



Who's Afraid of Peer Review?

A spoof paper concocted by *Science* reveals little or no scrutiny at many open-access journals

On 4 July, good news arrived in the inbox of Ocorrafoo Cobange, a biologist at the Wasee Institute of Medicine in Asmara. It was the official letter of acceptance for a paper he had submitted 2 months earlier to the *Journal of Natural Pharmaceuticals*, describing the anticancer properties of a chemical that Cobange had extracted from a lichen.

In fact, it should have been promptly rejected. Any reviewer with more than a high-school knowledge of chemistry and the ability to understand a basic data plot should have spotted the paper's shortcomings immediately. Its experiments are so hopelessly flawed that the results are meaningless.

I know because I wrote the paper. Ocorrafoo Cobange does not exist, nor does the Wasee Institute of Medicine. Over the past 10 months, I have submitted 304 versions of the wonder drug paper to open-access journals. More than half of the journals accepted the paper, failing to notice its fatal flaws. Beyond that headline result, the data from this sting operation reveal the contours of an emerging Wild West in academic publishing.

From humble and idealistic beginnings a decade ago, open-access scientific journals have mushroomed into a global industry, driven by author publication fees rather than traditional

subscriptions. Most of the players are murky. The identity and location of the journals' editors, as well as the financial workings of their publishers, are often purposefully obscured. But *Science's* investigation casts a powerful light. Internet Protocol (IP) address traces within the raw headers of e-mails sent by journal editors betray their locations. Invoices for publication fees reveal a network of bank accounts based mostly in the developing world. And the acceptances and rejections of the paper provide the first global snapshot of peer review across the open-access scientific enterprise.

One might have expected credible peer review at the *Journal of Natural Pharmaceuticals*. It describes itself as "a peer reviewed journal aiming to communicate high quality research articles, short communications, and reviews in the field of natural products with desired pharmacological activities." The editors and advisory board members are pharmaceutical science professors at universities around the world.

The journal is one of more than 270 published by Medknow, a company based in Mumbai, India, and one of the largest open-access publishers. According to Medknow's website, more than

ILLUSTRATION: DAVID PLUNKERT



EDITORIALS

A major failure of scientific governance

Public inquiry is needed to learn from an egregious case

Richard Smith *former editor in chief*, Fiona Godlee *editor in chief*

The BMJ, London, UK

Today *The BMJ* retracts a 1989 paper by R K Chandra,^{1 2} a Canadian scientist who recently lost a libel case against the Canadian Broadcasting Corporation (CBC). The broadcaster had accused him in television programmes of scientific fraud and financial deception.^{3 4} Chandra has had one other paper retracted,⁵ but it seems probable that many of his published studies are fraudulent. This long running and still unresolved saga raises serious questions about the governance of science and calls for a comprehensive response.

The BMJ started the process that led to the Canadian programmes when in 2000 it asked Chandra's university, the Memorial University of Newfoundland, to investigate a study submitted to the journal that the editors thought might be fraudulent.³

what form its investigation had taken and was eventually told that Chandra had resigned from the university and left the country and that the university could do no more. It did not mention its earlier investigation.

The BMJ rejected Chandra's paper, but *Nutrition* published it in 2001. *The BMJ* notified *Nutrition* about its anxieties and the paper was eventually retracted in 2005.⁵ The CBC programmes, broadcast in 2006, "uncovered a pattern of scientific fraud and financial deception dating back to the '80s."⁴ Studies for which Chandra had received substantial funding had simply not been done. He had also started a vitamin pill business, using his fraudulent studies to encourage sales, and when he sued the CBC he claimed losses from his business of \$125m (£81m; €110).



FEATURE

RESEARCH MISCONDUCT

Ranjit Chandra: how reputation bamboozled the scientific community

The BMJ has just retracted a paper published in 1989. **Caroline White** reports on the longstanding concerns about Chandra's work and the difficulties in getting to the truth

Caroline White *freelance journalist, London, UK*

Among the photo gallery of awards and gushing written testimonials on Ranjit Kumar Chandra's personal website is a 60th birthday tribute accredited to one of his former teachers, the late Professor John Soothill of London's Hospital for Sick Children at Great Ormond Street.

The English syntax is not what would be expected of an educated native speaker. But the text describes Chandra as a "wonderful" paediatrician, researcher, and student who barely needed teaching because he was "already excellent." It includes an anecdote of a trip Soothill took to see Chandra.

When Soothill explains to a Canadian immigration officer that he has come to see his student at the Janeway Child Health Centre in St John's, Newfoundland, she immediately asks if he

But these funds were held in 22 joint accounts in Chandra's and his children's names.

The judge also noted the extent to which Chandra maintained sole control of the couple's finances and the "absence of full disclosure" and "of full explanation" during the trial—behaviours that featured in Chandra's research undertakings and his responses to those who queried the findings.

First doubts at *The BMJ*

Among them was the former editor in chief of *The BMJ*, Richard Smith, whose suspicions were aroused in 2000 when Chandra submitted a follow-up study of a major trial published in the

Peer review

- Resource consuming, slow, inconsistent, prone to bias, low capacity to detect errors/fraud,...

*“...democracy is the worst form of government,
except for all the others that have been tried before”*

(Winston Churchill, 1947)

General principles

- Reviewer acts as an advisor to the editor
- Declare any conflicts of interest (e.g. personal, business, professional); decline to review if relevant
- Confidentiality, courtesy & constructiveness - authors will be grateful, editors will remember
- Keep up with deadlines
- Aim at the highest standard of reviewing quality, and don't let the author's names affect your judgment

Research question

- Is it innovative? If confirmatory does it really add up to current knowledge?
- Does it matter for clinicians, policy makers, public health authorities, or the society/general public?
- Does it have the potential to change clinical practice or stimulate further significant research?
- Negative results welcome provided that the research question is good and the answer is valid.

Originality

- Literature search by reviewer: has this been done before? If so, is the present study better with regard to design, sample size, methods, data analysis,....?
- If research not original provide editor with references
- If authors missed important previous work provide references

Validity & quality

- Is the study designed to provide valid answers to research question(s)?
- Strengths and weaknesses?
- Critical analysis: population, data collection, statistics (if not an expert just say so), conclusions (supported by the data?)
- Provide opinion on images, graphics, tables: all needed? any errors? well organized and attractive?

Other aspects

- Does the paper read well overall?
- Text length: adequate, too long or too short?
- Is the type of paper suited for the journal, and for the section it was submitted to?
- Language: is it suitable?
- References: well selected? adequate number?

Ethics

- Approval by appropriate ethics committee
- Patient confidentiality
- Other concerns (even if approved by EC)

Reviewer report to the editor (I)

- Structured, concise
- General impression, why is the paper important (or not) and to whom
- Strengths and weaknesses
- Point by point list: 1) major suggestions and criticisms, 2) minor points (may include typographical errors)

Reviewer report to the editor (2)

- Final recommendation to the editor (i.e. reject, major revision, minor revision, accept in present form)
- Confidential comments to the editor concerning particularly sensitive issues such as suspected research misconduct or fraud
- When done: re-read it from the point of view of the author before submitting

attn. Members of the EAN Subspecialty Scientific Panels

26 May 2015

Dear Colleagues,

The Committee on Publication Ethics (COPE) has recently revealed inappropriate systematic attempts to manipulate peer review processes of several journals across different publishers. It seems that this manipulation has been performed by a number of third party agencies offering services to authors.

Even though, there is a number of distinguished agencies offering manuscript-preparation services to authors, investigations suggest that some agencies are selling services, ranging from authorship of pre-written manuscripts to generating fake contact details for peer reviewers during submission process. Subsequently, they provide reviews based on these fake addresses. Such peer reviewers' accounts have names of seemingly real researchers but with email addresses that differ from those of their institutions or are associated with their previous publications. Others appear to be completely fictitious.

One of the main causes of this illegal activity consists in difficulty for an Editor of a journal to find available reviewers, and as such in the necessity to use those suggested by authors.

I believe that we, as active members of the European Academy of Neurology, shall be aware of this matter. Moreover, we shall consider that one of our very important missions is to accept eventual review requests from journals and provide complex and unpaid service which is essential for the promotion of the *Good Science*.

With kind regards,



Antonio Federico
Chair, EAN Scientific Committee



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