



MENU

THE TIMES
FRIDAY SEPTEMBER 15 2017

Search



LEADING ARTICLE

JULY 1 2017, 12:01AM, THE TIMES

Better Science Please

Plagiarism, exaggeration and contrivance are putting progress at risk



Share



Save



There was only one problem with Alberto Carpinteri's revelation that the image of Jesus imprinted on the Shroud of Turin was put there by neutron radiation emitted by an earthquake soon after the Messiah's death in AD33. It was the same problem as the one afflicting a paper published in *Science* that claimed face-to-face conversation with gay canvassers could be relied on to change a traditionalist's mind on the subject of gay marriage.


Both "discoveries" were no such thing and had to be retracted. One explanation for such bad science is that it is produced by bad scientists who value publicity and their own advancement over


knowledge. A more charitable one is that the researchers involved have been bullied into spurious areas of study by senior academics who insist on “sexy” papers published in leading journals from any candidate who wishes to be considered for promotion or external recruitment. The quality of the research is secondary, not least because it is seldom even read.

This inclination among young scientists to blame older ones for their ridiculous subject matter is no doubt justified, to an extent. It has fuelled the rapid expansion of the Bullied into Bad Science campaign, from Cambridge, to Bristol, Oxford, London and California. Its 50 adherents are pleading to be allowed to make “choices that are good for science and good for academia” without constant pressure to perform for an abused and threadbare system of peer review.

Advancing the sum of human knowledge matters much more than headlines, and publicity hungry scientists are doing their profession no favours. The number of retracted papers has risen tenfold since 1975 as the enemies of science gain in strength and number. They must not prevail. Equally, good scientists should remember that the opposite of bad science does not have to be boring.

Share



Save 

Comments are subject to our community guidelines, which can be viewed [here](#).

11 comments

Newest | Oldest | Most Recommended

Jack Hill Jul 1, 2017

Is this why the papers almost daily carry a stories about our health which on inspection are mostly just a load of bunkum based on tiny study groups?

5 ★ Recommend ↩ Reply

Tom Bloomfield Jul 1, 2017

@Jack Hill

Yes it is.

★ Recommend ↩ Reply

Drjip Jul 1, 2017

The great Michael Faraday advice to the young William Crookes, who had asked him the secret of his success as a scientific investigator, as quoted in Michael Faraday (1874) by John Hall Gladstone, p. 123, was simply:

"The secret is comprised in three words — Work, finish, publish."

The final stage "publish" is now a huge commercial profit making industry, controlled by a few companies:

"An analysis of the 45 million documents indexed in the Web of Science, and recently published in PLoS, reveals that Reed-Elsevier, Springer, Wiley-Blackwell, Taylor & Francis and Sage published more than half of all academic papers in the peer-reviewed literature in 2013. The study suggests it may be time for scientists to move away from major for-profit publishing houses, and take their research elsewhere."

<http://www.vocativ.com/culture/science/five-corporations-control-academic-publishing/>

and "The Oligopoly of Academic Publishers in the Digital Era"

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127502>

Today, the problem faced by all researchers publishing in the public domain via scientific journals, as discussed here, is the simple fact that the leading publishers of academic and specifically scientific research papers e.g. the above list, enjoy a monopoly that is supported, at least here in the UK, by the Government and the taxpayer.

Lawson et al., have published online the annual costs to UK Universities the spend in pounds between 2010-2014 was £431,246,323.00.

figshare.com/articles/Journal_subscription_costs_FOIs_to_UK_universities/1186832

The annual profits of these publishers are huge:

"As of 2015, the academic publishing market that Elsevier leads has an annual revenue of **\$25.2 billion**. According to its 2013 financials **Elsevier** had a higher percentage of profit than **Apple, Inc.**"

<https://medium.com/@jasonschrmitt/can-t-disrupt-this-elsevier-and-the-25-2-billion-dollar-a-year-academic-publishing-business-aa3b9618d40a>

However, almost all the content of the top publishers is hidden from public view behind a paywall, so that typically one has to pay at least £30 to obtain an electronic copy of a published journal paper.

Typically, only fee-paying students and full-time academic staff in UK Universities can obtain so-called 'free' access to this published research. Even I, a retired academic, am obliged to ask my old colleagues if they would mind getting me a copy of x's paper! And I know of scientific staff at various Government research Institutes who are obliged to ask their PhD students registered at a particular University to obtain copies of papers for them because their institution does not subscribe to a particular journal.

Yet the edifice of scientific publishing would collapse if all us academics charged for reviewing submitted manuscripts and editing these 'prestigious' journals - but we don't as such activities count towards the annual appraisal, our position to influence the publishing process, and our CVs.

Open-access journals such as PLOS and others are slowly gaining prestige, but the effective paywall paid for by, for example, the UK government in effect is supporting large-scale censorship of scholarly publishing to those who can afford to pay.

1 ★ Recommend ↩ Reply

DJA Jul 1, 2017

When I was a young science student many years ago I remember the 'rules' that I was told, an experiment must be reproducible for the results to be acceptable, a controlled experiment results should be regarded as much more worthy than those of observational experiments, a proper regard for statistical analysis should always be remembered and to never try to say something was 'proved' but express results as a statistical probability of being true.

Nowadase most of the above seem to me to be regularly 'thrown out of the window'.

DJA

1 ★ Recommend ↩ Reply

Nicholas Beale Jul 1, 2017

There is a widely recognised Crisis of Replication in most of the sciences: even highly cited papers in life sciences, psychology and experimental economics can rarely be duplicated. And standards of statistical rigour have historically been very low.

This is getting even more serious in the era of Big Data. Check out the work of the great Cynthia Dwork (now at Harvard) and read the wonderful Science paper by her, Aaron Roth and others on ThreshHoldout.

4 ★ Recommend ↩ Reply

Stephen Jul 1, 2017

@Nicholas Beale Can't find ThreshHoldout. Please can you help?

★ Recommend ↩ Reply

Nicholas Beale Jul 1, 2017

Google thresholdout starcourse and follow the link.

★ Recommend ↩ Reply

Stephen Jul 1, 2017

@Nicholas Beale Thanks. But sorry I bothered.

★ Recommend ↩ Reply

Chris Oakley Jul 1, 2017

If the number of retracted papers reflected reality, it would be much higher. I research public health. I am aware of many papers in that field that can be charitably described as scientifically dubious and some that I am happy to publicly describe as deliberately dishonest. Some of those papers continue to be used to inform and to justify policy, which in my opinion is totally unacceptable. Retractions in public health are virtually unheard of, largely because, in my opinion, politics is more influential than science in that pseudo discipline.

10 ★ Recommend ↩ Reply

David Nixon Jul 1, 2017

Scientists should reflect that the point of research is to add to knowledge. Publishing garbage research is counter productive. When I first worked at NASA 40+ years ago I was told that one good paper in three years was progress. It was thought that good research took that time to be comprehensive.

5 ★ Recommend ↩ Reply

JournoList Jul 1, 2017

You will be pleased to learn that the new Laws of Physics that bear the stamp

of the Progressive Caste will be published next week and be marked by a landmark BBC programme which will prove once and for all that the climate changes called "Climate Change by Numbers".

2 ★ Recommend ↩ Reply

livefyre🔥

You are logged in as a registered user

Ready for more?

Ready for more? Get unlimited access to the stories behind the headlines by subscribing for less than £1 a week.

FIND OUT MORE



▲ BACK TO TOP

THE  TIMES

GET IN TOUCH

[Contact us](#)[Help](#)[The Times Editorial Complaints](#) [The Sunday Times Editorial Complaints](#)[Place an announcement](#)[Classified advertising](#)[Display advertising](#)[The Times corrections](#)[The Sunday Times corrections](#)

MORE FROM THE TIMES AND THE SUNDAY TIMES

[The Times e-paper](#)[The Sunday Times e-paper](#)[Times Currency Services](#)[The Sunday Times Wine Club](#)[Encounters Dating](#)[Times Print Gallery](#)[Times Crossword Club](#)[Sunday Times Driving](#)[Times+](#)[The Sunday Times Rich List](#)[Insider City Guides](#)[Good University Guide](#)[Parent Power](#)[The Brief](#)

© Times Newspapers Limited 2017. Registered in England No. 894646.

Registered office: 1 London Bridge Street, SE1 9GF.

[Privacy & cookie policy](#)[Syndication](#)[Commissioning Terms](#)[Terms and conditions](#)