

SUBMITTED VERSION

This is the pre-peer reviewed version of the following article:

Robert J. Casson, Salmaan Al-Qureshi

The scientific journal in the post-truth era

Clinical and Experimental Ophthalmology, 2020; 48(2):153-154

which has been published in final form at <http://dx.doi.org/10.1111/ceo.13733>.

This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions."

© 2020 Royal Australian and New Zealand College of Ophthalmologists

PERMISSIONS

<https://authorservices.wiley.com/author-resources/Journal-Authors/licensing/self-archiving.html>

Submitted (preprint) Version

The submitted version of an article is the author's version that has not been peer-reviewed, nor had any value added to it by Wiley (such as formatting or copy editing).

The submitted version may be placed on:

- the author's personal website
- the author's company/institutional repository or archive
- not for profit subject-based preprint servers or repositories

Self-archiving of the submitted version is not subject to an embargo period. We recommend including an acknowledgement of acceptance for publication and, following the final publication, authors may wish to include the following notice on the first page:

"This is the pre-peer reviewed version of the following article: [FULL CITE], which has been published in final form at [Link to final article using the DOI]. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions."

The version posted may not be updated or replaced with the accepted version (except as provided below) or the final published version (the Version of Record).

There is no obligation upon authors to remove preprints posted to not for profit preprint servers prior to submission.

1 July 2021

<http://hdl.handle.net/2440/130883>

The Scientific Journal in the Post-Truth Era

Last year marked the 50th anniversary of the Apollo 11 Moon landing. After a 3-day trip and a glide path descent using rocket retrofire, Neil Armstrong engaged the Eagle's semi-manual override to avoid a boulder-strewn crater and safely touch down on smooth terrain in the Sea of Tranquility with 25 seconds of fuel remaining in the tank. Buzz Aldrin immediately announced, "Contact light", the first words spoken on the Moon. About 6 ½ hours later, Neil planted his left foot on the Moon and made his unrehearsed famous remark comparing a human stride to human progress.

Apart from the well-known miniature reflection of Armstrong in Aldrin's visor, remarkably, there is only one still photograph of the Apollo 11 commander on the Moon: Neil is seen with his back turned to the camera working on the Eagle at the edge of one of Aldrin's many panoramic shots. But the lack of Armstrong lunar

surface photos may be excused by the many other wonderful images that were captured during the Apollo program. On Christmas Eve in the preceding year, whilst in lunar orbit, Bill Anders in Apollo 8 captured on 70 mm colour Kodak the beautiful photo of *Earthrise*, commenting at the time, “There's the Earth coming up. Wow, that's pretty.” It sure is Bill. Thanks for that one. Oddly, there is growing collective with different ideas about *Earthrise*.

This year there are reports that another group of intrepid individuals will embark on a 21st Century voyage of discovery. These modern-day explorers are setting forth to find the Ice Wall. That's right, the Ice Wall: the 150-foot high wall of ice that surrounds the flat Earth and holds the oceans in. (1) In November 2019 in Dallas, the Flat-Earth society held its third international conference, just a few months after the 50th anniversary of Apollo 11. The bizarre resurgence of flat earthers coincides with an alarming rise in the “anti-vaccination movement”. In 2016, it was estimated that there were around 45,000 children in Texas who were exempted from state vaccination laws for “reasons of

conscience". In some regions the unvaccinated rate is approaching 5%, dangerously close to the 95% required for herd immunity. (2) Concurrently, we have a President of the United States who describes climate change as both "serious" and "a hoax". However, in a 2018 interview with the Associated Press he reassured us from the Oval Office by commenting, "*I have a natural instinct for science,*" (3). This was echoed by Australia's newest senator Jim Molan who relies on things other than evidence (animal spirit guide?) on climate change.

The reasons for this growing anti-science movement are unclear but throughout the political spectrum. In 2016, the Oxford Dictionaries Word of the Year was *post-truth*, where it is defined as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief". We believe that an appropriate response to this groundswell is captured by the fictional astronaut Mark Watney, in *The Martian*, "*I'm left with only one option:*

I'm going to have to science the shit out of this." We particularly like Watney's use of science as a verb, because that is what science is: a method of critical thinking that constantly self corrects by testing and refuting hypotheses.

Although it may play a minor role, the role of written peer reviewed scientific communication is essential in the practice of science. Curating the best science that it receives and then publishing it is a foundational activity of the scholarly professional group, which is what College holds itself to be. Without such endeavours it becomes a trade union. To that end this editorial board has published the best papers it has received out of the 19,000 manuscripts submitted over the past decade. Clinical and Experimental Ophthalmology is now the highest ranked medical journal published in this region. Uniquely it has its North American and European readership dwarfs its local readers. Over the last decade the editorial board has sought to dramatically increase its scientific rigour and standard. A process

begun prior to our tenure. A brief example illustrates this: 17 manuscripts submitted to this journal in which either of us have been authors, have been rejected by our own editorial board. So when your medial colleagues opine that ophthalmologists are no more than Ferrari-driving dilatants, rather than serious scholars, you can give the example of the journal, and remind them that there is no reason that one cannot be both.

The journal now moves into a future of artificial intelligence on the horizon, with its first female editor, and perhaps its last human one. We wish Justine Smith the very best and leave her with the sentiment that have continually inspired both of us “non futuis ascendit”.

References

1. Flat Earth Society. The Ice Wall [Available from: https://wiki.tfes.org/The_Ice_Wall
2. Hotez PJ. Texas and Its Measles Epidemics. PLoS Med. 2016;13(10):e1002153.
3. Associated Press. Oct 17, 2018 [Available from: <https://apnews.com/a28cc17d27524050b37f4d91e087955e>.