

Editorial

Quaere verum

Michael Trimble

This year has seen the release of the latest film in the *Matrix* series.¹ Those familiar with the franchise will know that the pretext for the narrative is that what we know as reality is, in fact, a shared computer simulation which has been developed to keep humanity captive as a biological energy source. A different take on unreality can be found elsewhere: The animated film *Spider-Man: Into the Spider-Verse*² and its live action follow up, *Spider-Man: No Way Home*³ depend on multiple parallel versions of reality to sustain their plotlines. You may think this is simply the stuff of stories rather than science, but it has supporters in unexpected places. In his book *The God Delusion*, biologist Richard Dawkins is happy to accept a theory of multiple universes⁴ including one where he has a green moustache.⁵ The idea that we are all living in a simulation *à la* the Matrix has also been postulated as a possibility⁶ - one that is taken seriously by some influential individuals.⁷

However, most of us probably live our lives according to the tenets of realism and rely on a certain degree of common sense. We take it for granted that the chair we sat on yesterday will bear our weight today. Scottish Common Sense Realism was a school of philosophy that existed in the 18th and 19th centuries but which has not survived the test of time. It opposed Descartes' Theory of Ideas and the extreme scepticism of David Hume, instead promoting simple realist belief. Its best known proponent, Thomas Reid, articulated the theory as follows:

“If there are certain principles, as I think there are, which the constitution of our nature leads us to believe, and which we are under a necessity to take for granted in the common concerns of life, without being able to give a reason for them — these are what we call the principles of common sense; and what is manifestly contrary to them, is what we call absurd.”⁸

A more modern formulation of realism was proposed by Roy Bhaskar in his book *A Realist Theory of Science*.⁹ He describes a hierarchy from empirically observed phenomena, through actual events, and on to the underlying reality. For Bhaskar, it is as important to focus on the nature of how things are (ontology) as it is to think about our knowledge of them (epistemology). The work of science takes theories regarding the nature of reality as its raw material, seeking to transform such theories and to improve them. These theories, and our knowledge of reality, are therefore *transitive*. Reality itself is not subject to such change and is therefore termed *intransitive*. To be a realist is not to believe that scientific

knowledge is unassailable and immune to change or challenge. Thomas Kuhn describes the normal business of science as problem solving within an accepted system¹⁰ but notes that from time to time the very system changes and undergoes a revolution or paradigm shift.¹¹ Our knowledge is at best a fair representation of the world but, in general, it is accepted that the world is real, is constant. Such realities may be termed *brute facts* or *true truth*. We need to take truth seriously and, for this reason, submissions to this journal are subject to peer review to ensure standards are maintained.

In the contemporary context, some truths have become emotionally and politically charged. Stating one's beliefs can have consequences. In the academic setting, fears about the loss of academic freedom and the potential for open debate have reached such levels that the UK government has thought to introduce a Bill to protect free speech in universities¹² but even such legislation may not be sufficient if there is a popular movement among students. This was evident in the case of analytic philosopher Kathleen Stock. In her book *Material Girls*,¹³ she took a realist approach to biology, as might be found in current physiology texts.¹⁴ Ultimately, the campaign against her led to the end of her tenure at the University of Sussex.¹⁵ This in turn became a topic on BBC's *Question Time*. Contributing on the panel was the eminent reproductive specialist Lord Robert Winston. Somewhat surprisingly, his statements regarding reproductive biology were rebuffed by the programme's host.¹⁶ I suspect that most of us, whatever our area of practice, remember much of the basic science we were taught at medical school. Although, it should be noted that the validity of traditional texts has recently been challenged.¹⁷

Knowledge has been described as justified (or warranted), true belief. For data to become knowledge a knower is required¹⁸ and to that extent all knowledge has a personal element.¹⁹ Some, such as Thomas Kuhn²⁰ and the Ancient Greek philosopher Protagoras,²¹ have argued against the concept of objective truth but their arguments do not hold water. Whether considering the astronomical models of Ptolemy and Copernicus^{22,23} or the mechanics of Newton and Einstein²⁴ for one model to be “better” than another, it must be held to be a more accurate representation of the way things are, that is, of objective reality. In our quest for truth, we acknowledge that our theories are often imperfect and, as in a quote ascribed to Sir William Osler,

In seeking absolute truth, we aim at the unattainable and must be content with broken portions.²⁵



Not everyone loves the truth. We need to be mindful of those who propagate untruth – we live in a world with error,²⁶ lies,²⁷ conspiracy theory²⁸ and fraud.²⁹ Before becoming incorporated to Queen's College (now Queen's University) the Belfast Medical School was part of the Royal Belfast Academical Institution³⁰ (known locally as Belfast "Inst"). The school motto was, and still is, *Quaere verum* (Latin meaning "seek the truth"). Let me conclude by encouraging you, in whatever situation you find yourself, to seek the truth.

REFERENCES

1. Wachowski L. Matrix Resurrections. [motion picture]. California: Warner Bros; 2021. 148 min.
2. Persichetti B, Ramsey P, Rothman R. Spider-Man: Into the Spider-Verse. [motion picture]. California: Columbia Pictures, Sony Pictures Animation, Marvel Entertainment, et al. 2021. 117 min.
3. Watts J. Spider-Man: No Way Home. [motion picture]. California: Columbia Pictures, Marvel Studios, and Pascal Pictures. 2021. 148 min.
4. Dawkins R. The God Delusion. New York: Bantam Press; 2006. p. 145-7.
5. Dawkins R. The God Delusion. New York: Bantam Press; 2006. p. 365.
6. Bostrom, N. Are we living in a computer simulation? *Philos Q*. 2003; 53(211): 243–55.
7. Solon O. Computing. Is our world a simulation? Why some scientists say it's more likely than not. *The Guardian*. [Internet]. 2016 Oct 11 [cited 2021 Dec 20]. Available from: <https://www.theguardian.com/technology/2016/oct/11/simulated-world-elon-musk-the-matrix> [Last accessed Jan 2022].
8. Wolterstorff N Reid on common sense. In: Cuneo T, Woudenberg R van, editors. *The Cambridge Companion to Thomas Reid*. Cambridge: Cambridge University Press; 2004. p. 85.
9. Roy Bhaskar. *A realist theory of science*. London: Verso Books; 2008. p. 21-3.
10. Khun T. The structure of scientific revolutions. 4th ed. Chicago: University of Chicago Press; 2012. p. 23-42.
11. Khun T. The structure of scientific revolutions. 4th ed. Chicago: University of Chicago Press; 2012. p. 92-134.
12. Department for Education, Office for Students. Press Release. Universities to comply with free speech duties or face sanctions. 2021 May 12. [cited 2021 Dec 22]. London: Gov.UK. Available from: <https://www.gov.uk/government/news/universities-to-comply-with-free-speech-duties-or-face-sanctions> [Last accessed Jan 2022].
13. Stock K. *Material girls: why reality matters for feminism*. London: Fleet, Little, Brown Book Group; 2021
14. Barrett KE, Ganong WF, Barman SM, Boitano S, Brooks H. *Ganong's review of medical physiology*. 23rd ed. New York: McGraw-Hill Professional Publishing; 2010. p. 391-428.
15. Adams R. Sussex professor resigns after transgender rights row. *The Guardian*. [Internet]. 2021 Oct 28 [cited 2021 Dec 21]. Available from: <https://www.theguardian.com/world/2021/oct/28/sussex-professor-kathleen-stock-resigns-after-transgender-rights-row> [Last accessed Jan 2022].
16. Davies G. 'I will get hate mail now': Lord Robert Winston backs professor in trans row. *The Telegraph*. [Internet]. 2021 Oct 15 [cited 2021 Dec 21]. Available from: <https://www.telegraph.co.uk/news/2021/10/15/will-get-hate-mail-now-lord-robert-winston-backs-professor-trans/> [Last accessed Jan 2022].
17. King RK, Fuselier L, Sirvisetty H. LGBTQIA+ invisibility in nursing anatomy/physiology textbooks, *J Prof Nurs*. 2021; 37(5): 816-27.
18. Nagel J. Knowledge: a very short introduction. Oxford: Oxford University Press; 2014. p. 2-3
19. Polanyi M. Personal knowledge: towards a post-critical philosophy. Abingdon, Oxfordshire: Routledge & Kegan Paul PLC: [corrected edition 1962] p. 23-34
20. Khun T. The structure of scientific revolutions. 4th ed. Chicago: University of Chicago Press; 2012. p. 170
21. Nagel J. Knowledge: a very short introduction. Oxford: Oxford University Press; 2014. p. 10-11
22. Okasha S. Philosophy of science. a very short introduction. 2nd ed. Oxford: Oxford University Press; 2016. p. 2-4
23. Polanyi M. Personal knowledge: towards a post-critical philosophy. Abingdon, Oxfordshire: Routledge & Kegan Paul PLC: [corrected edition 1962] p. 3-8
24. Osler W. Teacher and student. In: Osler W. *Aequanimitas with other addresses*. Philadelphia: P Blakiston's Son & Co; 1904. p. 39–40.
25. Okasha S. Philosophy of science. a very short introduction. 2nd ed. Oxford: Oxford University Press; 2016. p 6-7
26. Department of Error. *Lancet*. 2021; 398(10315): 1964. DOI:[https://doi.org/10.1016/S0140-6736\(21\)02275-3](https://doi.org/10.1016/S0140-6736(21)02275-3). Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02275-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02275-3/fulltext) [Last accessed 6.1.2022]
27. Teacher unfairly dismissed after pupil lied about being locked in a cupboard. *The Telegraph* [Internet]. 2021 Sep 9 [cited 2022 Jan 6]. <https://www.telegraph.co.uk/news/2021/09/09/teacher-unfairly-dismissed-pupil-lied-locked-cupboard/> [Last accessed Jan 2022]
28. Williams R. Covid: Cinema & Co flouted ban to show conspiracy film. *BBC News*. [Internet]. 2022 Jan 4 [cited 2022 Jan 5]. Available from: <https://www.bbc.co.uk/news/uk-wales-59853848> [Last accessed Jan 2022]
29. Paul K. Elizabeth Holmes trial: jury finds Theranos founder guilty on four fraud counts. *The Guardian* [Internet]. 2022 Jan 4 [cited 2022 Jan 6]. Available from: https://www.theguardian.com/technology/2022/jan/03/elizabeth-holmes-trial-jury-finds-theranos-founder-guilty-on-four-counts?CMP=Share_iOSApp_Other [Last accessed Jan 2022]
30. Froggatt P, Bridges B. Belfast Medical School 1835-1985. Belfast: Belfast Medical Students' Association; ca 1986. Available from: https://www.ums.ac.uk/bmsch/bmsch_med.pdf [Last accessed Jan 2022]

UMS Website

The Society needs a Fellow or Member to take over the maintenance of its website (www.ums.ac.uk). This is not an onerous task and is one which can be done from home. The website has been written directly in html which is not difficult to learn and the site benefits by the pages being simpler and smaller and therefore faster to load. The structure is stable and unless the new website manager wishes to rewrite the site, only routine maintenance will be required. This will mostly be needed before each new lecture season, after the AGM, and after an issue of the Journal has been published.

A brief introduction to writing in html is available from our administrator (administrator@ums.ac.uk) to whom all enquiries and offers of assistance should be addressed.



UMJ is an open access publication of the Ulster Medical Society (<http://www.ums.ac.uk>).

The Ulster Medical Society grants to all users on the basis of a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence the right to alter or build upon the work non-commercially, as long as the author is credited and the new creation is licensed under identical terms.