
Book review

Peter Doherty

The Knowledge Wars

Reviewed by James Renwick*

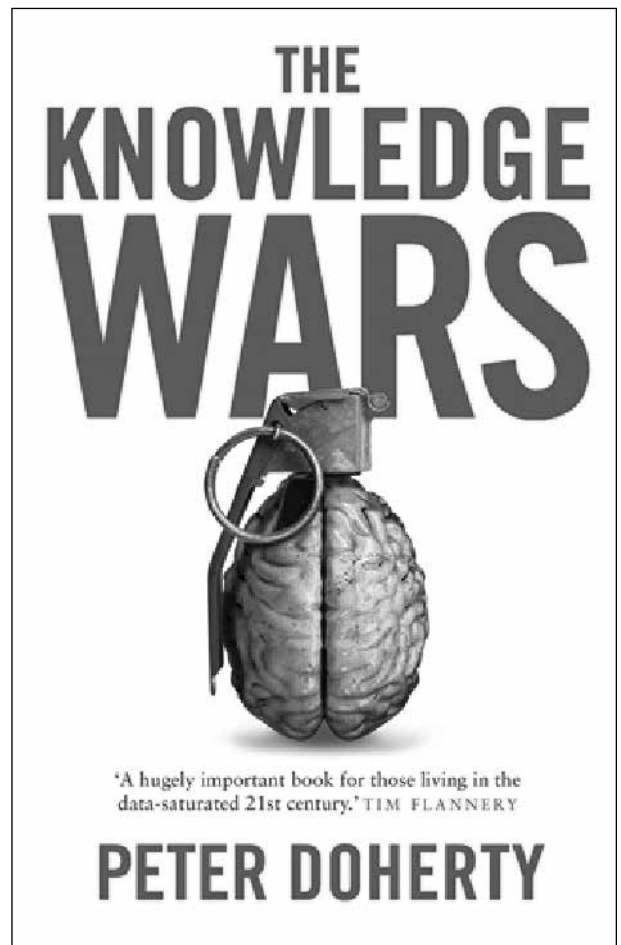
Australian Nobel laureate Peter Doherty's new book is designed to help the reader understand how science works, how to assess scientific claims, and generally 'how to think better' around taking an evidence-based view of the world. Timely stuff! The book is aimed at a general audience and is written in an accessible and very readable style. Its appendices on how to 'check out a scientist', and how to get a sense of the scientific literature and the peer review process, are very valuable insights into the fabric of the science enterprise. It is written by a scientist and appeals more to the head than the heart, but that is part of the point. Many of the examples come from either medical science or climate change, so they cover many of the most contentious issues today. The back cover of the book promises something to offend everybody – I'm not sure Doherty succeeds on this front, but he provides plenty of food for thought.

An over-riding theme of the book is the rise of anti-intellectual and anti-science attitudes in recent decades, echoing C.P. Snow's commentary from the late 1950s on the 'two cultures' of the arts and sciences. The story begins in Elizabethan times with Francis Bacon, Galileo, Copernicus, and the beginnings of the scientific method. Perhaps it was possible 400 years ago to have a grasp of the whole sweep of human understanding and expression, but today, knowledge bases have narrowed as the scope of what is known has broadened immensely. This has impoverished discussion in civil society across the world – exemplified by the almost proud claim of 'I'm not a scientist' made by some Republican politicians in the US.

The section on 'Working Scientists' and the history of the title 'scientist' and what that connotes is very interesting. It is instructive to remember, in our tech-saturated age, that the word 'scientist' has existed for less than 200 years. While the Royal Society of London has been around since the time of Newton, the major science institutions of the modern world have all come into being since the mid-1800s. It's nice to see coverage of 'citizen science', a very positive internet-based phenomenon of recent years, allowing pretty much anyone to be involved in cutting-edge research from understanding butterfly populations, to the shape of the universe, to doing climate change modelling from home.

Perhaps the most engaging section of the book is 'The Good, the Bad, and the Ugly', looking at scientific fraud. Fraud does happen, but Doherty points out that scientists tend to be trusting souls, often gullible and not especially street-wise, and more interested in finding out the truth about how Nature works than in faking results for personal gain. This is my personal experience and, to my mind, is one of the main arguments against the idea of a 'global conspiracy' around climate change science. There's a very good description of peer review and the process of the accumulation of knowledge in science. Getting published is only the first step! While Doherty does not dwell on economics or politics, he does talk about the pervasive power of money, nicely summarised as: 'Do we really want government of the people, by the compliant, for the mega-rich?'

The final chapter, 'Reality Cannot be Denied', spells out some bottom lines – reality must take precedence over public relations, as Richard Feynman famously said. For all the hand-waving, abrogation of responsibility ('I'm not a scientist'), and downright lies (see recent revelations about ExxonMobil and climate change research), the data tell the story, and that story is ignored at our peril. As citizens in a democracy, it is our responsibility to be properly informed on the issues that matter, and it is especially the responsibility of our elected representatives to be properly informed, and to act in the best interests of all of us. Peter Doherty makes that case extremely well.



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*James Renwick is Professor of Physical Geography, School of Geography, Environment and Earth Sciences at Victoria University of Wellington.