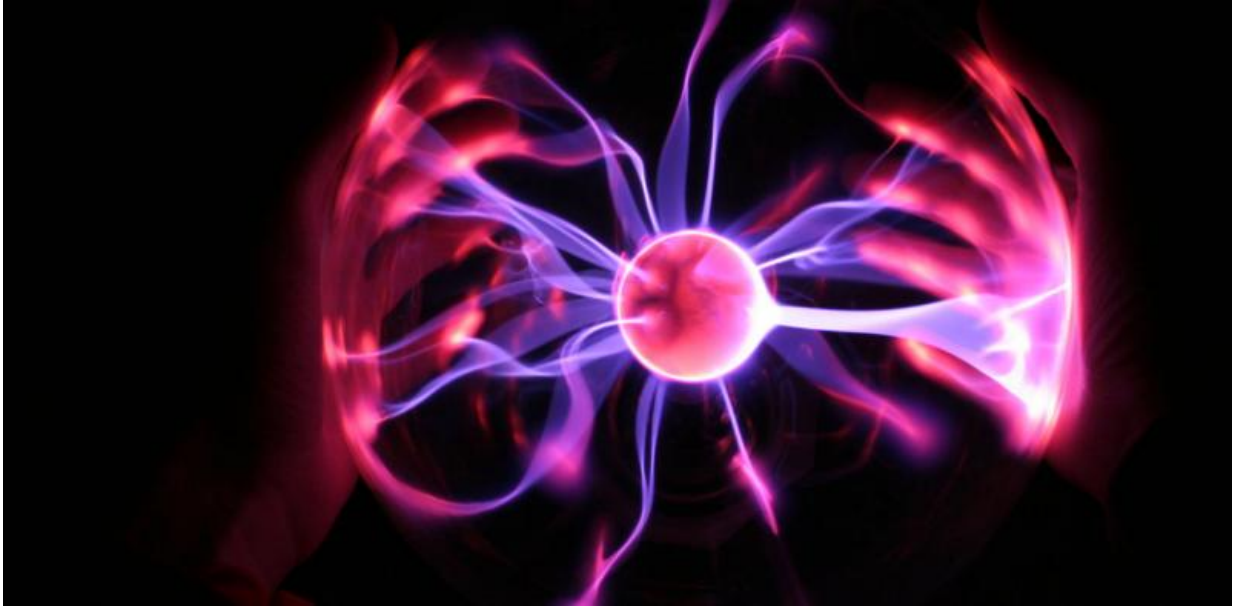


What has science ever done for us?

September 1 2015, by Will J Grant



Electricity is only one of the marvels brought to us by science. But even that's not enough to convince some of its value. Credit: Michael Wyszomierski/Flickr, CC BY

The deadbeat boyfriend at the centre of Janet Jackson's 1986 hit [What Have You Done For Me Lately](#) used to take Janet out to dinner almost every night. He used to do a lot of nice stuff for her. But – as the title asks – what had he done for her lately?

Like Janet, many people ask the same question of [science](#).

Sure, since the 16th century, science has given us electricity and anaesthetics, the internet and statins, the jumbo jet, vaccines and good anti-cancer drugs, the washing machine and the automobile. But what has it done for us lately?

In fact, for many people, what science has done for us lately hasn't been dancin' till one thought one would lose one's breath. Rather, it has delivered emotionally-charged fights over issues such as vaccination, whether everyone should be taking statins, anthropogenic [climate change](#) , [genetically modified foods](#), wind farms and high-tension power lines.

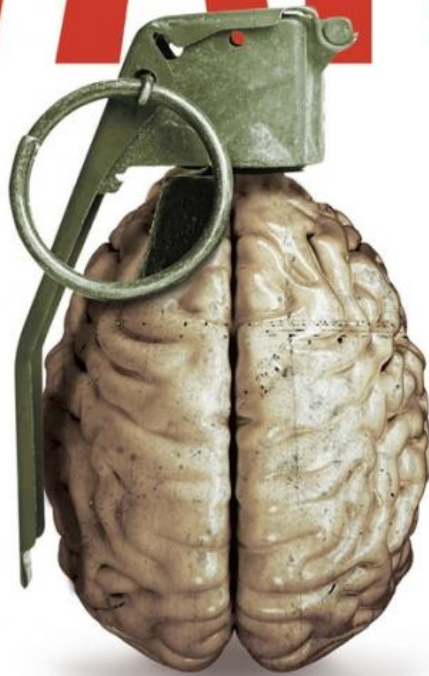
Indeed, while most of us are happy with most of the products of science – not least our [iPods, white goods and light bulbs](#) – when it comes to some of the more contentious issues of science we're not such a happy bunch.

You only have to look at comment threads on this site on articles about these topics to see just such unhappiness and disgruntlement. In such discussions, science isn't a benign tool for understanding the natural world, but a villain intent on unleashing industries and technologies we don't want, or forcing us to give up our SUVs or eat our broccoli.

In this sort of world you can understand why, when considering the state of things, many scientists have taken on slightly exasperated air.

Warts and all

THE KNOWLEDGE WARS



‘A hugely important book for those living in the data-saturated 21st century.’ **TIM FLANNERY**

PETER DOHERTY

Science is under attack from some quarters. Credit: Melbourne University Press

And so Nobel Laureate and National Living Treasure Peter Doherty has stepped into this breach to make the case for science. His new book, [The Knowledge Wars](#), rests on the argument that we are in the midst "of a potential deadly conflict between the new knowledge based in science and the established power".

That is, while science has often been in conflict with established dogma – from Charles Darwin to [Barry Marshall](#) and [Robin Warren](#) – for the first time in a long time science finds itself pitted against powerful economic and political actors.

In this space, Doherty's work seeks to provide a practical discussion of the nature of modern science with the hope that we can all take on a more evidence-based view of the world.

Thankfully, this isn't a ra-ra hagiography that just drums into us that science is the best thing that's ever happened to us since our ancestors discovered the paleo diet (though there is some of that).

Rather, Doherty seeks to explore how science works in modern times, warts and all. This means instead of a recitation of a high school definition of science, Doherty provides a nuanced, thoughtful discussion of the limits of peer review; the economics of publishing; the scientific culture of critique; fraud, errors and outright criminality in scientific work; and the nature of modern data collection.

This makes it a valuable "behind the scenes" examination of what

actually happens in [modern science](#).

Renaissance again

The goal in much of this is not to directly convince those who, for example, reject the [Intergovernmental Panel on Climate Change](#)'s position on climate change, but to provide ammunition to those of us who find ourselves stuck in a conversation with such people.

We've all heard lines about "global conspiracies of scientists". Yet no one who has a passing understanding of how science works could imagine getting a global community to agree on anything remotely doubtful.

Doherty's central target (very much in keeping with the history of science, really) is blind acceptance of dogma based on the pronouncements of authority. Here he connects centuries of science from Galileo and Copernicus to Charles Darwin, Richard Feynmann, Barry Marshall and Robin Warren.

We might even point to an earlier trajectory of empirically minded iconoclasts, from [Prince Henry the Navigator](#) to [Heraclitus the Paradoxographer](#). Importantly, though those who reject the idea of [anthropogenic climate change](#) might point to such iconoclasts as rejecting scientific dogma, Doherty very much highlights such revolutionary work as part and parcel of the process of science. For him, the solution to any of the ills of science is more science.

At times The Knowledge Wars feels like a Wikipedia binge, ranging widely and wildly through invention and events of the last 500 years (although, to be fair, that's often how I spend my Saturday nights). And, perhaps more fundamentally, it sorely misses a nuanced take on the economic sociology and history underpinning that period. For example,

although central to much of scientific and social history of the last half millennium, "capitalism" doesn't make it to the index.

But the bigger lament I have after reading *The Knowledge Wars* is one perhaps I share with Doherty. Modern science began with the birth of Renaissance men; with individuals who understood that wise governance requires an embrace of statecraft as well as high art and the latest advances in science.

Yet now, the very idea of Renaissance men and women seems anathema, a foolish dream that could never happen in this crazy mixed up world we now live in. But is that really so foolish?

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