

Science takes to the streets

Opinion was divided about what the global Marches for Science were about. But it's time to abandon the notion that science should be apolitical.

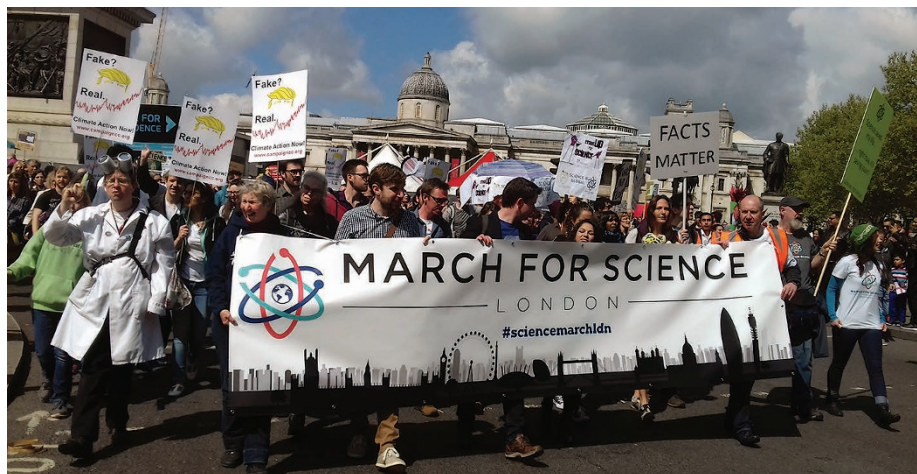
Did you march? It's hard to know what counts as a metric of success, but the worldwide March for Science on 22 April surely left its mark. Rain didn't deter several tens of thousands at the main event in Washington DC; comparable numbers turned up in a similarly sodden New York, as well as Los Angeles and Chicago, while parallel marches in London (pictured) and Berlin drew around 10,000 each. About 600 such demonstrations took place throughout the world, from Sydney to Stockholm. Seven scientists even braved the fierce sub-zero wind at an Antarctic research station to show their solidarity.

The marches were supported by celebrities ranging from science popularizer Bill Nye to actor Peter Capaldi, who currently plays Doctor Who in the British TV series. The events had little of the anger, albeit plenty of the determination, of recent political demonstrations, feeling more like good-natured jamborees at which marchers dressed up and competed for the wittiest placards.

But what was it all for? That question was hotly, even bitterly, debated before the event. The rather vague motivation was that science, and a more general respect for facts and evidence, is under threat around the world, and that it was time for a show of strength against the post-truth political climate. But some felt that science should stand apart from making partisan political statements, and that rallies of this kind compromise the spirit of science as a cool, objective search for reliable knowledge. Shouldn't science be apolitical?

In the United States in particular, there were also concerns that the pro-science agenda was being hijacked by identity politics. The prominence among the organizers and figureheads of middle-aged, white, Anglophone males seemed to imply that minority voices would be no more visible here than they are in the rest of science. There was even a suspicion that the March for Science could turn into an inquisition on science itself, interrogating the concern that the scientific community is as riddled with prejudice and exclusion on grounds of gender, race and sexuality as is the rest of society.

On the other hand, some feared that the marches would be seen as just another bleat from the privileged, left-leaning elites that they were no longer getting their way in an



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era of populist politics that has so far given us Brexit, President Trump and the rise of the far right in Europe.

It's tempting to respond to those voicing these concerns by saying: welcome to the world. These messy, factional, divisive and often ill-tempered arguments happen in other spheres of life — why should science be any different? The idea that you can hold a big public rally without expecting conflict among those with diverse agendas is a fantasy.

But there is a deeper reason to be troubled by calls to keep science apolitical. As that argument raged among scientists and their advocates, historians of science looked on with a mixture of amusement and dismay. To anyone with an eye on the historical trajectory of science, it is ludicrous to question that it has always been shaped by its social and political milieu. This is not to invoke the shallow relativism that posits general relativity as a cultural construct no more valid than folk belief (an idea that never held much sway in the history of science anyway). But sociopolitical forces have often shaped the questions science asks and the applications it finds for its answers — not just in contentious areas such as research on race and heredity but also in areas such as quantum electronics (<http://hsns.ucpress.edu/content/18/1/149>).

More troubling still, the demand that scientists remain apolitical was precisely what was heard in Nazi Germany in the 1930s. The widespread attitude that it was improper for German academics to meddle in politics led to the condemnation

of Albert Einstein for speaking out about the anti-Semitic purges in the universities. There's little question today whom we deem to have called it right on that occasion.

That science is hostage to political gambits is more painfully apparent than ever at present in the UK, as scientists contemplate withdrawal from European projects in the wake of Brexit. That alone surely gave British scientists ample reason to take to the streets.

But of course the real threats to the integrity of science right now come from the Trump administration. The President's dismissal of climate change — research on which is a waste of taxpayers' money, according to a White House spokesperson — and his crude destruction of environmental safeguarding are ideological denials of scientific reason and evidence on a par with Trofim Lysenko's rejection of Darwinian evolution under Stalin. Just as with creationism (with which Trump has flirted), this selective denial of inconvenient truths may go hand in hand with an alleged enthusiasm for science in areas that incur no ideological conflict. Trump's slashing of funding to the National Institutes of Health shows him as no champion of biomedical research either, but it is no surprise that this might be a boom time for defence-related research.

Trump's rampage against climate and environmental research is indeed a threat to the basic principles of science. Even if those marching in other countries had no particular grievances of their own, a gesture of solidarity with their American colleagues was reason enough. □