they disagree with as being anti-science. For instance, despite being labelled by many as anti-science, the US Republican Party — for all of its flaws — is not trying to hobble innovation or seeking to dismantle the research enterprise.

In fact, Republicans have historically been strong supporters of science. They led the effort in the 1990s to double the budget of the National Institutes of Health (NIH), and they enthusiastically support space exploration. In March, when President Donald Trump proposed cutting nearly 20% of the NIH's budget, Republicans on spending committees in Congress were among the first to scoff at the idea.

In no way does this defence of politicians excuse the blatant climate denial, the politically motivated budget cuts and the interference with peer review that all too frequently characterize government. Plenty of politicians, particularly in recent years, have made a habit of choosing certain inconvenient facts and dismissing them entirely. But to claim that this constitutes a strategic war on science is to argue that science is a single, unified entity: that if you are not with science on any given issue, you are against science.

Science does not speak with a single voice. Sit at a hotel bar during any conference and you will hear impassioned debate over what the data have to say about a certain question. Equally credentialled researchers fall out on whether carbon dioxide levels in the atmosphere have passed a tipping point, or on the health risks of sugar.

Those who claim persecution in their pursuit of science would do well to consider whether the pursuit is as pure as they might wish. Science is ripe with problems: irreproducible results, manipulation of statistics, widespread sexual harassment and gender discrimination, and conflicts — or at least what seem to be conflicts — of financial interest, to name but a few. Stepping back to see how all this comes across to non-scientists could be educational.

If politicians don't oppose the concept of science, why do so many seem to dismiss it? Many 'anti-science' measures have nothing to do with science at all. US politicians who want to weaken the Environ-mental Protection Agency, for instance, tend to want also to weaken all sorts of federal programmes that they see as examples of 'big govern-ment' interfering in local issues. Debates about the labelling of genetically modified food are driven less by health concerns than by distrust of the agriculture industry's business practices. Government science agencies — shock, hor-ror — are not always operated efficiently, and moving funds to more-effective programmes might sometimes be justified.

"Many 'anti-science' measures have nothing to do with science at all."

Science is only one of many factors and interests that a thoughtful politician needs to weigh when choosing a position on a complex topic. If science sometimes loses out to concerns about employment or eco-nomics, scientists should not immediately take it as a personal slight. Rather, it is a reason to look for common ground on which to discuss the concerns and work out how science can help: creating jobs in green energy, for instance, or revamping wasteful grant programmes.

Of course, corruption and conflicts of interest can frequently motivate political decisions as well, and researchers and others should not hesitate to highlight them. But name-calling and portraying the current politi-cal climate as a war between facts and ignorance simply sows division. If scientists are feeling threatened by budget cuts and real anti-science rhetoric, they should look for all the help and support they can get. ■

Yes, but ...

Brainstorming is of dubious value in discussions of scientific issues.

The idea was simple. Strapped for cash and searching for ways to persuade funders to be more generous, one Italian scien-tist had a brainwave. Why couldn't researchers trade their old microscopes for cash? The car company Fiat, after all, ran a scheme that paid owners to relinquish ten-year-old models, with the amount of compensation matched by the government.

History suggests the microscope idea went nowhere. It was quickly dismissed as unworkable. Indeed, it survives only because it is men-tioned in *The Lancet* in a brief write-up of a 1997 meeting, described as a brainstorm on European Union research funding.

That makes it unusual, because unused suggestions that emerge in brainstorming sessions tend not to even leave the room. They lie forgotten, scrawled on pink sticky notes on walls and flip charts in corporate headquarters everywhere. And they have done since the concept of the brainstorm was popularized in the 1950s as a way of freeing the creativity of a group.

No idea generated, the brainstorming rules insist, is a bad idea. But what if that itself is a bad idea? In a Comment article published this week in *Nature Human Behaviour*, the organizational psychologist David Burkus argues that brainstorming sessions stifle, rather than unleash, solutions (D. Burkus *Nature Hum. Behav.* http://doi.org/b6t6; 2017). It's not a new suggestion. Indeed, Burkus draws on research published more than a decade ago to help make his case that immedi-ate criticism helps, rather than hinders, creativity. But it comes at a valuable and pertinent time: a time when the intellectual free-for-all of the brainstorm is leaking noticeably more and more into public and political discussions of scientific issues.

The Wellcome Trust, for example, is concerned that "something seems amiss". The UK-based biomedical funder last week launched a project to investigate the perceived "pushback in society on 'experts'" and whether this hinders the environment for research. Also last week, *The New York Times* was heavily criticized by cli-mate scientists and others after its new conservative columnist Bret Stephens shared his (predictably negative and depressingly tired) opinion on the robustness of data and models used to assess global warming.

The newspaper offered a defence that sounds awfully like the instructions issued by the moderator of a corporate brainstorming session: it's an idea and one just as valid as yours. Shouldn't we hear all opinions? Please don't respond with 'Yes, but'. Say 'Yes, and …'.

Yes, but. As has been pointed out many times before, although everyone is entitled to their own view, it is not unreasonable to judge (and to expect responsible media to choose to highlight) opinions that rest on documented evidence — concerning, for example, climate change, childhood vaccinations, evolution — as carrying more weight than those merely perched on top of other opinions.

An intellectual brainstorm is no way to respond to the legitimate concerns thrown up by the shifting political sands of today, and an uncertain place for science and reason. Because it is not a lack of creative thought that threatens at present, it is more an unwillingness to seek and agree common ground and then build on it. That is a difficult job, but one — as *Nature* has said before — that more scientists must embrace, by reaching out to communities and engaging with the issues they raise.

Science is a creative process, and the free expression of ideas is a vital component. But so, too, is the robust (and expert) criti-cism of those ideas, and the rejection of ideas that fail. In his piece, Burkus presents a telling statistic about the role of the devil's advocate in the Roman Catholic Church's process of beatification. This individual was instructed to criticize, to say 'yes, but', and to present all the reasons why someone should not be sainted. From 1587 until 1983, when the practice was abolished, just 98 people were canonized. From 1983 until today, the number is more than five times greater. ■