

Science must be more political

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The great tragedy of science, Thomas Huxley once observed, is a beautiful hypothesis slain by an ugly fact. The great tragedy of science today, complain its champions, is its ugly and polarising politicisation. “Global warming” sceptics are compared to Holocaust deniers. Researchers using embryonic stem cells are called “baby-killers”. The left labels the right “anti-science” theocrats; the right says the left perverts science to serve its collectivist agenda. No beautiful hypotheses here.

Perhaps the tragedy, though, is not that science is too political – it is that science is not political enough. Just as war is too important to be left to the generals, scientific conflicts are increasingly too important to be entrusted to the scientists. Public policy would be significantly better off if scientists were treated with greater scepticism and less deference.

Public debate would be far better informed if scientists were pushed to make their work more accessible, self-critical and contextually aware of findings in complementary technical disciplines. Politicians in democracies should not hesitate to exploit publicly the inherent uncertainties and legitimate disagreements in scientific analyses on sensitive issues. Highlighting science’s flaws – not unlike highlighting flaws in healthcare, national security and economic programmes – is good politics and even better policy.

Science as an enterprise may be objective; scientists as individuals are not. Anyone who has participated in peer reviews or research grant committees knows this. Scientists can be as vulgar, pigheaded and contemptuously dismissive of contrary evidence as any lawyer, civil servant, journalist or elite professional. Indeed, scientists who inject themselves into the white-hot centre of policy debate tend not to be famous for either modesty or understatement. They are, in every meaning of the phrase, “political scientists”.

That is fine. An individual scientist deserves much the same standing in a science policy debate as would a parent or teacher in policy disputes over education. Institutionally, however, America’s National Academies of Science, the UK’s Royal Society and the acronymed jumble of United Nations agencies have increasingly abandoned traditional roles as science “advisers” in favour of actively lobbying for their quantitative models and scenario extrapolations to be public policy planning tools. In effect, scientific institutions have evolved into “special pleaders”, as vested in the rightness of their recommendations as any influence seeking industrial trade group or bar association. The “scientific objectivity” of their forecasts is achieved through negotiated committee consensus.

Unfortunately, most of these consensus declarations minimise methodological disagreements, competing interpretations and self-criticism. Judicial rulings by supreme courts may include two or three cogent dissenting views from the bench; elite science review committees typically do not. Are distinguished scientists less ideological and more objective about evidence than distinguished jurists? Hardly.

The core problem is fundamental confusion over scientific consensus in public policy. A scientific consensus on how to split the atom is not a policy consensus on which bombs or nuclear reactors to build; a scientific consensus around the origins and transmission of

HIV/Aids is not a consensus about public health interventions; and scientific consensus about climate change is not policy consensus around carbon taxes or renewable energy. History teaches that culture, ethics, economics and, yes, politics overwhelmingly determine how scientific consensus ultimately translates into policy. Scientific consensus is overrated as a successful policy rationale. “Better science” – say, identifying gene markers for intelligence or violent behaviour – is as likely to incite political polarisation as promote policy consensus.

But to the extent rational people insist “consensus science” justifies brave new policies, they invite closer scrutiny of how that consensus was reached. Here science does not do well. Ask physicists, molecular biologists, meteorologists, climatologists or economists what rules define “consensus” in their respective disciplines. Their answers will disappoint. No scientific consensus exists about what constitutes a scientific consensus.

Not 20 years ago, the scientific consensus declared the human genome filled with useless “junk DNA”. Today the emerging “consensus” insists junk DNA is useful after all. A century ago, elite scientific consensus said “eugenics” should determine the west’s population, immigration and education policy. How sustained should the perceived scientific consensus be before multi-billion-pound, life-and-death public policies are fixed around it?

Science has been an extraordinarily successful project to understand and explain the world and the universe. Post-modern and deconstructionist critiques dismissing science as just another narrative are nonsense. But history – from Newton to Blackett to Watson and Crick – gives the lie to the notion that excellent public policy is found at the point where excellent scientists agree. The opposite is more faithful to the facts: the most interesting and important public policy debates emerge from where excellent scientists disagree.

Politicians should cheerfully exploit this ugly fact. Scientists will be more credible and persuasive not if they are less political but if their arguments are more accessible, more testable and, yes, more humble. Then again, that is just a beautiful hypothesis.

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