

When Mike Hulme speaks in public about climate change, the screen behind him gradually fills with the book covers of titles on climate change published in the past three years. After he has spoken for two minutes the screen is a colourful mosaic of over sixty titles. They are mainly serious and technical. A few are popular and accessible.

Why is Mike Hulme's new book the one to read? First it is authoritative. Until 2007 he was head of the prestigious Tyndall Centre at the University of East Anglia – a global player in the science of climate change. He led the Tyndall research team for seven years, contributing to and editing numerous refereed reports and publications. He also sat through the preparatory meetings of the IPCC process, and has observed the interminable debates of the Panel itself.

A special public good

But the main reason to read this book from cover to cover is that he communicates the elemental nature of the climate change issue for both science and society. He highlights the unique role of climate change in impacting our social and political systems. There are other public goods provided by nature - land, terrestrial water and vegetation – but climate is unique in the extent to which it cannot be possessed, subjected to markets or otherwise captured by an ambitious sovereign state. It is also unique in that its impacts are environmentally and socially comprehensive. The incremental toxic impacts of local atmospheric polluters affect non-polluters and other polluters everywhere. Climate is a very special public good.

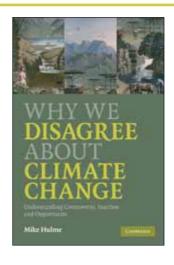
For policy-makers, climate change is extremely challenging. It is at once a problem that is rich in uncertainty but requires urgent attention. This type of problem, says Hulme, is a wicked problem: one that tends to generate

a number of solutions that attract enthusiastic coalitions of support. For example, such coalitions argue that nuclear energy and biofuels have the potential to mitigate greenhouse gas production. But these technologies also have very serious negative environmental consequences. Doing the wrong thing very well is a common consequence of our response to wicked problems. Doing the right thing a little badly is often overwhelmed by the promotion and adoption of a too well-organised technology. As a consequence, we do the wrong thing extremely well. Think of the motor car.

Our place in the world

In addition to all these virtues, the book will also help those who want to engage with how society has constructed its positions on climate change through human evolution. These issues are addressed fluently and again, accessibly, by a committed Christian. For example, we are introduced to the very useful concept of the different ways of knowing that we bring to bear on such complex matters as climate change as well as on science and the economy more generally. Mike Hulme shows that climate change is not simply a problem: it also triggers us to think about our place in the world.

The book covers a wide range of climate science and social theory. I have never read a book with its capacity to engage all the relevant parties. It will help the weary insider negotiator, as well as experienced politicians practised in dealing with



Mike Hulme (2009). Why we disagree about Climate Change: Cambridge University Press

daily uncertainties. It will impress the adviser interpreting these uncertainties for those allocating scarce resources. Scientists buried too deeply in their disciplinary silos will breathe oxygen from every chapter. It will enable those running programmes on climate change science and its politics to communicate more effectively. Those following such courses will not purchase a more useful or better nuanced overview. That the book will also be useful to any responsible citizen is a remarkable achievement



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From not deigning to not daring

UK libel laws stop scientists speaking out, says **Tracey Brown**

We should keep the libel laws out of science. They shut down discussion. They stifle public access to opinions and criticism. They silence would-be contributors to public debates.

The libel action brought by the British Chiropractic Association (BCA) against the science writer Simon Singh over an opinion piece in the Guardian last year is just one example of legal chill where open debate should be. Singh had criticised the promotion of chiropractic for infant conditions such as colic and asthma. The BCA turned down the newspaper's offer of a response article and sued. Publishers and editors are now cagey on this subject, as they are on the promotion of vitamins by Matthias Rath, who sued Ben Goldacre and the Guardian, and as they are on US pharmaceutical company NMT, who sued cardiologist Peter Wilmshurst in London for comments about a trial he made in the US to a US publication.

The English law of libel has a wide jurisdiction, narrow defences and extremely high costs – all the features you would look for in a law to shut your critics up. Even a flimsy case (and with low thresholds for action in the London courts, flimsy gets you a long way) imposes such expense that defendants are best advised to pay and apologise. If you can't prove to the courts that you have the money to fund it, you cannot fight the case. Singh faces costs of £100,000 before he even gets to court to defend himself.

Access to all views

The issue here isn't just the right of scientists and journalists to say what they think. It is public access to the full range of views, which includes robustly-worded criticism and accusations that products or

practices are 'bogus' or 'quackery'. But fear of libel, and the selfcensorship that results from that fear, chills many discussions before they start

People can read the ads on the Internet for a box to 'protect you from EMF radiation' but not the assessment of the engineers who opened it up and found no mechanism inside – but who were too anxious about legal exposure to publish direct criticism of the product. A Hollywood actor's views on psychiatry flashed around the globe in seconds; a scientist's reaction against them in the Celebrities and Science Annual Review sat with media lawyers for a week, before the public eventually got a modified, euphemistic version. And people will probably never hear the details of the laboratory that provides three pages of gobbledegook 'scientific analysis' to people with Alzheimer's disease and to parents of autistic children (concluding rather regularly in the need to buy some over-priced supplements), because its connection with a Harley Street practitioner who has sued previous critics scares us all off.

Change the law

Many of us have pushed hard over recent years to get scientists sharing what they think about the evidence for different claims, rather than keeping it in common rooms and private members' clubs. Instead of rolling eyes at each other about MMR vaccine scare stories, we said, get out there and tell people what is wrong with Andrew Wakefield's case reports. We have come some way

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since those timid times. But the effect of libel fears in silencing criticism threatens that. Where, in the past, many scientists and medics didn't deign to share their views, now we encounter the problem that they don't dare to.

The libel laws have no place in scientific disputes. The fact that litigants can use them to silence critics in science and medicine tells us that something is very wrong with the law. If we are serious about open debate in science, we should join those who want to change it.



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