

1. History is what we make it

For almost 40 years I had the naive view that if we simply obtain more physical understanding of the issue, we could provide 'the' answers and responses would be rational. I now see that there is absolutely no guarantee of this. It is ourselves we do not understand.

Atmospheric scientist Graeme Pearman, 17 February 2009

As a top CSIRO climate scientist and head of his division from 1992–2002, Graeme Pearman contributed significantly to climate change knowledge internationally, as did his colleagues at the CSIRO Division of Atmospheric Research in Melbourne. He also was a tireless communicator to the public explaining the science and risks of climate change.

The fact that he found himself increasingly 'muzzled' in his public utterances by the late 1990s, and eventually made redundant from his position at CSIRO in 2004, reflects the trajectory of the climate change story in Australia during those years. Only now, more than a decade later, do climate scientists once more venture to publicly join the dots on why 'one-in-a-hundred-year' floods may be occurring every five to ten years and black Saturdays may well become more frequent.

Australia's recent history of climate change communication and understanding shows how we construct our own history—the stories we tell ourselves through the mass media and our beliefs about what is true or real can shift in as little as 10 to 20 years, and we then come to think things were always that way. Historians and philosophers know that social reality has shifted over time within our civilisation, and that it can be dramatically different from the world views of earlier civilisations. Psychology explains that knowledge is a social construct.

There are persuasive arguments that power comes from controlling the daily stories that define our society. And those who understand the cognitive sciences can tell us how related information frames and rhetoric are 'heard' and constructed. The narratives and agendas we listen to daily come from opinion leaders who are mostly politicians, corporate chieftains and the mass media (Lakoff 2004; Rampton & Stauber 2002; Ward 2001).

With that understanding, one can start unpacking the documentary record of how anthropogenic climate change was communicated from the late 1980s to the 2000s in Australia—and arrive at a startling discovery. We find that Australia once had a high level of understanding of global warming and climate change risks and possible responses, which was conveyed by scientists like Pearman, both here and internationally, and amplified by journalists and book authors, with not a sceptic in sight, at first. Polls indicate the general public wanted an

active response. State and federal policymakers were persuaded of an urgent need to take action and started the wheels turning before 1991 (Henderson-Sellers 1990; Lowe 1989; Bulkley 2000b).

By 1990, Australia had an early national emissions reduction target—aiming for 20 per cent below 1988 emissions levels by 2005. Interviews indicate almost no-one remembers this, including some of those in government at the time, but the documentary record, particularly the newspaper record, is clear: 25 years ago Australia was agreeable to a tough emission reduction target.

In the late 1980s and early 1990s human responsibility for the enhanced 'greenhouse effect' was a given in every press article reviewed as well as in government documents. Response measures started with energy efficiency and canvassed every response—including a carbon price—that are discussed today. But as the 1990s progressed, this changed. Gradually the early good understanding was overtaken by a huge case of uncertainty, doubt or ignorance, which was closely linked to a changed daily narrative for public consumption that was crafted by political leaders and the mass media. A new normal was being created. What happened and how is the question I delve into in this book.

Equally remarkable is the fact that the science information about causes, effects and risks has remained consistent over nearly three decades. Every five to six years, mass media reports on a new international assessment that makes it sound like we have just confirmed that human activities are responsible, but this is hardly the case. One of the most emphatic assessments by the United Nations Intergovernmental Panel on Climate Change (IPCC) was the first it released in 1990. Assessments have followed in 1995, 2001, 2007 and 2013 (www.ipcc.ch/) and involve hundreds of the world's experts in their field analysing the growing body of science, economic impact and response research.

The 1990 report made the strongest and most easily understood (by the layperson) statements on the issue: climate change is happening and human burning of fossil fuels is the main agent. Since then, the most significant changes to IPCC assessments have been the inclusion of more localised detail, plus the realisation that the planet is experiencing an unsettling and unexpected rate of rapid climate change.

The evidence trail shows, however, that by 1996 and thereafter, with basically the same science story as laid out in the first IPCC report in 1990 (albeit with changed communication style), risk messages were being reframed into a hazy scientific debate, particularly about human agency, that confused the public and helped those who blocked action. The narrative that once asked what could be done to slow or reverse the emission of excess greenhouse gases by human

societies, i.e. an early risk management and global ethical argument, evolved into an inward-focused national interest argument for no change from 'business as usual'.

The science story became an economic story and the storyline became a familiar contemporary one: Australia is exceptional amongst countries, thanks to policy decisions to focus the national economy on mineral and coal exports, and 'cheap' electricity production for the domestic market and to attract energy-intensive multinational industries like aluminium. With this narrative, Australia was reconstructing its social reality in the 1990s.

How the story was being revised first emerged from whistleblowing about political interference in science communication, which was extensively documented by the Union of Concerned Scientists (UCS) in the United States (http://www.ucsusa.org/global_warming/). In 2007 two further and complementary investigations in the United States confirmed these findings: there has been broad interference in the United States in the communication of scientific results relating to climate change. Interference came in the form of reports being altered or shelved, scientists harassed by Congressional committees and pressure to eliminate words like 'climate change' from research conclusions ('Dirty tricks' 2007; UCS 2007).

In Australia, while there was less documentation of direct political interference in communication in the past 20 years, a long-time chronicler of the climate change policy story, physicist and science and society researcher Ian Lowe wrote that it is done by appointment: 'the stacking and sacking of public boards, reviews and task forces has been driven by ideology and is suppressing new ideas arising from science, to the detriment of innovation and the environment' (Lowe 2006: 41).

Unveiling how communication has been manipulated over two decades may well hold the key to understanding why so many still don't understand. In terms of *why* the communication was reframed and manipulated, one cannot underestimate the influence of ideas that gained cultural dominance during the 1990s following a brief attempt to reconcile environmental and economic values up to 1991. The upsurge of economic market fundamentalism, in tandem with a return to a familiar battle pitting the economy *against* environmental ideas and environmental science, came to dominate policy responses.

Other dominant values and beliefs that surfaced to drive the argument against climate change action included traditional assumptions about human and Christian exceptionalism, and beliefs in salvation through technology and

the 'techno fix'. This suite of values—inhabiting political, business, and some religious opinion leaders and amplified by the media—is shared by many in society at large.

It's a consistent world view, allowing those who hold these values to dismiss the risk or misread the science. Scientists as a class are not immune to these value structures. The public sceptics who helped foster uncertainty since the 1990s might well hold some such beliefs while also holding ideas particular to their scientific disciplines, geology being one example.

The gauntlet was thrown down as scientific sceptics (coming from any discipline), policymakers, media and the public grappled for the first time with a radically new concept: the notion of anthropogenic climate change—the idea that humans are now a force of nature capable of altering basic earth systems, such as the atmosphere.

This text taken from *Global Warming and Climate Change:
What Australia knew and buried ... then framed a new reality for the public*,
by Maria Taylor, published 2014 by ANU Press,
The Australian National University, Canberra, Australia.