Federal GALLERY

JOURNAL OF THE ASSOCIATION OF FORMER MEMBERS OF THE PARLIAMENT OF AUSTRALIA

JUNE 2016

In this issue:

Editor: Robert Solomon

Mirrors and Mazes: a Guide through the Climate Debate
by Howard Brady, 2016, 175pp (pb), $20
from www.mirrorsandmazes.com.au, also Amazon and CreateSpace

The IPCC has dominated debate on Global Warming (later Climate Change) since its creation by the UN in 1988. This title refers to the tools used by magicians to trick their audience. Brady covers the scientific information and more besides. I've read many books on climate change but found much new material here.

The present is not unprecedented, either in climate or alarm. 360 years ago there was panic in Europe over advancing glaciers and in the 1970s the big scare was the coming Ice Age. The current panic started with increasing greenhouse gases leading to runaway global warming. On the way it was mixed with conservation issues, such as reducing CO_2 by reducing use of fossil fuel and introducing alternative energy. It has failed so far because there is no suitable battery technology.

Despite no warming since 1998 the alarmist message is still to contain global warming by reducing CO_2. In reality CO_2 does not correlate with temperature, either in the geological time scale or now. In the ice age of 450 million years ago the CO_2 level was 10-15 times higher than now, but in the one 350 m.y. ago it was like today's.

Brady bravely attempts in Chapter 2 to explain chaos (non-linear) theory. The climate system is so complex it cannot be treated with simple mathematical formulae as in models: different outcomes can stem from the same conditions. In its 2001 report the IPCC admitted this and said "therefore long-term prediction of climate is not possible", but that did not stop it using inappropriate mathematical models. There are many astronomical cycles that affect the earth, and they have complex interaction. Major ice ages have coincided with the solar system crossing one of the spiral arms of the Milky Way. The Milankovich cycle results from changes in the earth's distance from the sun, its wobble and tilt. Many cycles interact with one another, rather like wheels within wheels.

Since widespread temperature measurement began in the 19th century, three warming periods have been recorded: 1860-1880, 1910-1940 and 1975-1998. All had similar temperature gradients but different CO_2 levels, and only the last is attributed to human activity. The Holocene Thermal Maximum of 8000 to 4500 years ago was warmer than today and sea level was two metres higher. The Minoan and Roman Periods were warmer than the Mediaeval Warm Period of 1000 years ago. Present temperatures are NOT unprecedented. There are excellent records of European glaciers advancing and retreating, and the modern retreat began in the 18th century, before any rise in CO_2 levels.

The media now describe any severe weather outbreak as exceptional or unprecedented, and invariably link it to rising CO_2, but Brady demonstrates the failure of this association. CO_2 levels increased by 40 per cent over the last 150 years, but there has been no increase in storm frequency. The increase in human population and infrastructure means that storms do more damage than previously, but larger insurance claims do not mean more storms. Graphs of US hurricanes and Australian cyclones show no increase over time. Similarly with extreme dry periods in the US.

During the 20th century tide gauges showed sea level rise of about 1.5mm per year and we don't know where the water came from. There is

no reliable evidence for accelerating sea level rise, but governments accept IPCC projections (more accurately, predictions) up to an extreme of 82cm by 2100. Satellite measurements indicate higher rises than do tide gauges and their merging has resulted, for example, in Port Kembla showing three times the rise of the long reliable Fort Denison gauge just 100km north. Sea level predictions lead to coastal management decisions. Local government uses consultants, who use IPCC reports as reliable authority. There is no simple linear relationship between sea level rise and shoreline history and regional differences are great, so a national policy is not appropriate.

Sea ice comes from frozen sea water and floats, so it does not affect sea level (Archimedes' Principle). The Arctic is all sea ice, no land mass, and satellites show its dramatic decrease from 2000. However, Antarctic sea ice has steadily increased, contrary to climate model predictions. These contrasting developments cannot both be due to increasing CO_2. The East Antarctic ice sheet gained 82 billion tonnes of ice per year between 2003 and 2008, whereas the West Antarctic has been warming since the 1950s, as it did more strongly in both the 18th and 19th centuries.

Brady ranks the greenhouse gases for their effect, with water vapour at 82 per cent and CO_2 next at 11 per cent. The dominance of water vapour does not correlate with heat, and the hottest places on earth are dry deserts. The entire IPCC global warming scenario depends on calculations about water vapour, but the modelling of water vapour is a nightmare, well described here.

In Chapter 10 Brady discusses models, their assumptions and their problems. The computer tells us how input data might interact but ignores the problem of chaos, mentioned above. 'Fixing the model' is traced back to the ancient Greeks' ever-growing number of wheels to explain celestial movements. Modern models make the epicycles look like respectable science. The IPCC gives only projections (extending a line on a graph), **but the media and politicians treat their numbers as predictions**.

Heat transfer is hard to model, but necessary. Transfer of heat from the Equator to the poles is one problem; another is transfer from the atmosphere to the oceans. The heat capacity of the upper few metres of the ocean equals the total capacity of the atmosphere. The ocean accounts for nearly all the uncertainty.

Clouds are generally neglected in global warming calculations but are hugely important. A change of just one per cent in the earth's cloudiness could account for all the 20th century warming. With so much emphasis on CO_2, the sun has had a minor role, yet it underpins our climate with sunspots, magnetic cycles, ultra-violet rays and total solar irradiance. Low sunspot activity correlates with cold periods. Brady concludes that some future shock like global cooling may be needed to bring the scientific world to its senses, to admit that **for 40 years carbon dioxide has been given an exaggerated role**.

Assessing the IPCC, Brady says that right from the start it assumed that greenhouse gases controlled temperature; hence its advice to control carbon emissions to stop temperature rising. Its Summary statements are sometimes incorrect and contain interpretive propositions not based on solid data. If you want to know how the IPCC tricked you, this is the book for you.

Cliff Ollier

(This review summarises a review essay by Prof Ollier in the *New Concepts in Global Tectonics Journal*, V, No. 1, March 2016, pp. 132-136.)