

# **The Social Psychology of Climate Change**

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According to the world's climate scientists, climate change could see the average temperature of the Earth rise by up to 6° C. During the last Ice Age, when New York was several metres under ice, the mean temperature of the Earth was only 5° C lower than it is now. Sea level rise of nearly one metre by the end of the century (the upper estimate of the IPCC) would see Bangladesh lose 14 per cent of its entire land area and several low-lying islands inundated, inducing a flood of environmental refugees. Tens of millions of people, mostly in poor countries, will be exposed to deadly vector borne diseases such as malaria, schistosomiasis and dengue.

Quite apart from the implications for the peoples of the Third World, the consequences for Australia of climate change will be horrendous. There is a high probability of many areas settling into a permanent El Nino state, southwest Western Australia will be almost uninhabitable, water flows in the Murray-Darling will fall by 20-40 per cent, and severe damage is expected to be visited on the Barrier Reef, Kakadu National Park, the snow fields, wetlands and on and on.

Yet no one is marching in the streets, and our Government refuses to take even small steps to begin to reduce emissions. Although we are in the grip of a drought induced by El Nino, the National Farmers Federation is strongly backing the Federal Government's decision to pull out of the Kyoto Protocol.

What is going on? In a continental nation where the climate deeply affects our psyches, Australians in general, and the Government and its policy advisers in particular, appear to be in a state of denial. Opinion polls show widespread concern about the issue, but at another level Australians don't want to know.

George Marshall has analysed the slowness to act in terms of the Freudian idea of denial.<sup>1</sup> Often, when confronted by potential catastrophes, intellectual knowledge is not enough, no matter how compelling it may be. In order to act, people need to be shocked into a state of heightened awareness in which they act on the information in front of them. While some German Jews understood clearly that their lives were imperilled by the Nazis and migrated, many remained in Germany despite the mounting evidence and perished. Marshall quotes an old German adage: “Things whose existence is not morally possible cannot exist”.<sup>2</sup>

In a way, climate change represents a repudiation of the Enlightenment’s faith in the power of science and reason. Humans are capable of a state of simultaneous ‘knowing and not-knowing’, a state that accurately captures the position on climate change of the US and Australian Governments. The Howard Government formally accepts the science of climate change and has officially endorsed the reports of the UN’s Intergovernmental Panel on Climate Change (IPCC). For any disinterested reader, the reports of the IPCC make terrifying reading. Yet while ostensibly accepting that all of this is likely to happen, it acts as if nothing will happen. Occasionally, the slip shows and a senior minister will challenge the science, such as when the Prime Minister, confronted with the fears of Pacific island states that they may disappear altogether, said the ‘jury is still out’ on sea-level rise. In fact, the jury is emphatically in.

The farm lobby is also in denial even though it will be most severely affected. Climate scientists have been saying for some years that global warming is likely to intensify El Nino events, meaning worse droughts across eastern Australia. In fact, climate change represents the most severe threat to the future of farming in Australia. Here are a few facts from a recent CSIRO publication:

- Stream flows in the Murray-Darling Basin are expected to decline by up to 20% by 2030 and 45% by 2070 – a possible halving of water in the MDB already under severe stress – with huge implications for irrigators.

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<sup>1</sup> George Marshall, ‘Denial and the Psychology of Climate Apathy’, *The Ecologist* (UK), November 2001. Marshall draws on the work of Stanley Cohen in *States of Denial*.

<sup>2</sup> Marshall quotes this from Primo Levi.

- Annual milk losses of 60 to 90 litres per cow by 2030 are anticipated, even with extra spending on shade sheds and sprinklers.
- Fruit fly and cattle tick are expected to spread southward as average temperatures rise, resulting in loss of export markets.
- Weed infestations will become worse.

All of this seems to have passed by the NFF. In fact, at a recent meeting at the NFF one climate scientist was shouted down.<sup>3</sup> It would seem that the farmers in question feel so threatened by the news that they won't listen to it. Even the Government appears to want to keep the bush in the dark. Around a year ago, after the CSIRO released its superb full-colour kit called 'Climate Change in Australia', a senior bureaucrat in the Australian Greenhouse Office in Canberra was asked why the kit had not been distributed widely in regional Australia. His response was: "We don't want to scare the horses".

Yet the costs to farmers will dwarf the effects of any other issue. A study of the Macquarie River basin in northern NSW examined the implications of expected changes in water supplies. The results showed that mean annual runoff will be reduced by up to 30%. Using optimistic assumptions, the study found aggregate losses to the agricultural economy in 2030 of 6% in the low-change case and 23% in the high case.

At least one senior rural figure has finally got the message. Last year former National Party leader Tim Fischer said: "There is a very direct challenge for agriculture in NSW and Australia arising from climate change, and this will see severe impacts on production over forthcoming decades." But he is a lonely figure among rural leaders.

Climate change is above all a moral question, because those responsible are rich people who have become rich by burning fossil fuels, and the people who will suffer most are poor people in poor countries. Yet greenhouse deniers – not the mad sceptics in the Lavoisier Group but the Australian politicians, bureaucrats and fossil lobbyists who have prosecuted the Australian position – have attempted to reframe the climate change problem so as to avoid the ethical considerations. The people in question (all

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<sup>3</sup> The National Farmers' Federation disputes this, saying that there was only 'robust debate'.

of whom I could name) find it too personally challenging to face up to the fact that their own actions jeopardise the lives and livelihoods of multitudes of people. They have attempted to frame the international negotiations as economic or trade issues rather than environmental ones. They have castigated the Europeans for attempting to trick the rest of the world into believing that they are serious about reducing their emissions when in reality they are just trying to obtain kudos for emission reductions that would have happened anyway. Some have even characterised the whole debate as a European plot to win a trade advantage over naïve and struggling Australian firms.

At a briefing in Canberra after the Kyoto conference, an ABARE officer revealed the peculiar worldview that underlay the bureaucratic position, a position shared by the Government. When asked to describe the Umbrella Group (comprised mainly of Australia, USA, Japan, Canada and Russia), he said that it represented the ‘free world’, as if a decade after the fall of the Berlin Wall the Cold War were still being fought in the Canberra bureaucracy, except that the European Union had assumed the mantle of the Evil Empire.

It is much harder to make this sort of claim against people in Third World countries, for they are the ones who will suffer disproportionately from the effect of climate change – including decreased crop yields (leading to starvation), sea-level rise, and increased incidence of tropical diseases. The problem of how morally to deal with the innocent victims of climate change caused by us has been solved by attacking poor countries for refusing to save themselves.

Thus after Kyoto, casting around for an excuse to renege on the deal, the Australian Government seized on the argument put by the US fossil lobby at the last minute – that the Kyoto Protocol is flawed because developing countries are ‘exempted’. This is a manifest denial of the facts and the Government’s own agreed position, as reiterated by the Prime Minister a week before the Kyoto conference in November 1997. Every international agreement on climate change – the 1992 Framework Convention, the 1995 Berlin Mandate and the 1997 Kyoto Protocol – explicitly recognises that developing countries will be required to cut their emissions, but only after rich countries have led the way. Australia’s 19 million people produce more greenhouse pollution than Indonesia’s 200 million.

Typically, it was Foreign Minister Alexander Downer who expressed it with his own brand of childish bluntness.

“[I]t is no solution at all ... if China and India and Brazil can go ahead and pollute the environment to their heart’s content because we’re all feeling a bit sorry for them.” (Alexander Downer, *AFR*, 26 March 2001)

This is a remarkable statement. Blaming the victim is a familiar defence against the fear that it might happen to us. So it is comforting to believe that the unemployed are jobless not because we as a society have failed to provide them with a means of earning a living but because they are lazy bludgers. And we are relieved to hear that a gruesome murder in the next suburb was the result of a ‘domestic dispute’. We think: ‘As I am not part of the murderer’s family, I am safe’ and we lose some of our sympathy for the victim. Downer characterises the victims of climate change as selfish – thereby deflecting blame from those who are responsible for the problem – and infers that those who support exclusion of developing countries are soft-headed, simultaneously vilifying both the victims and those who support them. He says explicitly that compassion is no basis for action on this issue, a crude attempt to undercut the moral claims of developing countries.

It has been suggested that the reason it was much easier to reach an effective international agreement to phase out ozone-depleting chemicals was that the additional UV rays reaching the Earth through the hole in the ozone layer are especially damaging to the health of people with fair skin. White people, those most affected, tend to be rich and powerful while black people tend to be poor and weak, and the rich and powerful acted because they felt threatened. The story is more complicated, of course. Alternatives to CFCs were available and almost as cheap, and the economies of the world were not dependent on CFCs in the way they are dependent on fossil fuels. But the story does illustrate the way in which threats are interpreted through perceptions of impacts on oneself. This is why in international agreements developing countries almost invariably come off second best.

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The need to act on climate change has come up against one of the deepest articles of faith of modern conservative governments – that the principal focus of government should be to maximise the rate of economic growth. Our business and political leaders are so fearful of anything that might affect the growth rate that even a very small price is too much to pay to improve the chances of the long-term survival of capitalist expansion.

Despite the overwhelming evidence of the minimal economic costs of environmental protection and the longer-term economic advantages, it remains true that claims that environmental laws will reduce growth have an almost magical power over political decision-makers. In the case of global warming, we are confronted by the most frightening threat to the future of the world, set out with chilling understatement in the various reports of the UN's Intergovernmental Panel on Climate Change.

As if the predicted impacts I have already referred to – warming, sea-level rise, and millions exposed to deadly diseases – were not daunting enough, in 2002 the US National Academies of Science not only endorsed the IPCC's conclusions but produced a new report entitled *Abrupt Climate Change: Inevitable Surprises*<sup>4</sup> which argued that global warming may trigger 'large, abrupt and unwelcome regional or global climatic events' such as severe droughts and floods. The smooth curves of the climate models may hide the propensity of the climate system to switch suddenly to new states, with scarcely imaginable results. Even the authors of the National Academies report were concerned that their discussion may curdle the blood of the public and added:

It is important not to be fatalistic about the threats posed by abrupt climate change. Societies have faced both gradual and abrupt climate changes for millennia and have learned to adapt through various mechanisms, such as moving indoors, developing irrigation for crops, and migrating away from inhospitable regions.

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<sup>4</sup> *Abrupt Climate Change: Inevitable Surprises*, Committee on Abrupt Climate Change, National Research Council ([www.nap.edu](http://www.nap.edu))

You can only move indoors once. We are accustomed to securing our homes against some external threats, such as by installing burglar alarms; now there is a literature emerging on how we can ‘climate proof’ our houses. For modern humans, the weather is increasingly becoming an abstraction, and it is our wealth that enables us to withdraw from the elements. I am reminded of the beautiful Leunig cartoon in which a man and his son marvel at the sunrise on television while the real sunrise occurs at the window. The television image is more real than Nature because we are losing our capacity to join with Nature. Climate-proofing our lives is an extension of human attempts to control the natural world and its impacts on us, and this is transforming our psyches in profound ways. As the Earth has filled up with human activity over the last century or two, we harden ourselves against the effects of Nature’s unexpected forces, and our relationship to the natural world is transformed. The loss of external wilderness and the isolation of ourselves from the elements – the result of a mere 200 years of industrialism, after tens of thousands of years in which the structure of the human psyche was laid down – these have deprived us of the inner wilderness and respect for the natural order.

Without the material counterpart of the primal unconscious how are we to sustain ourselves psychologically? Under the dual onslaught of economic exploitation and scientific explanation, the world has lost its ability to enchant us. We have nowhere to send Jason on his odyssey, except perhaps to outer space. In other words, we find it increasingly difficult to find the imagery that can inspire the inner journey through life.

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While conservative governments have found endless excuses for inaction, the general public in Australia and the USA have indicated in surveys that they want their governments to take action. But the intensity of concern has been strangely muted. Marshall asks why the general public have been so apathetic on the issue of climate change. Pointing to various psychological processes that reinforce the denial, he suggests that when our grandchildren ask us why we did nothing about climate change even though we understood what would happen, we will either deny knowledge (‘I

didn't know'), deny our agency ('I didn't do it'), deny our personal power ('I couldn't do anything') and blame others ('The corporations and George Bush did it').

Curiously, some segments of the environment movement in Australia appear to be in denial over climate change too. Although it is unquestionably the most serious environmental threat of all, some environmentalists in Australia have not grasped the gravity of the threat, and we are now seeing a pattern of knee-jerk resistance to a range of renewable energy proposals across this country, from opposition to biomass burning to objections to new wind farms.

Many of the gains of environmental campaigns of the past could be lost if the predictions of the world's climate scientists prove correct. The passion and hard work that has gone into saving the Tasmanian wilderness, protecting the remaining old-growth forests of New South Wales, the tropical forests of Queensland, the jarrah forests of WA and the prodigious efforts that now need to go into restoring the land, all of these may come to nought.

There are important exceptions, notably those groups collected together in the Climate Action Network Australia, along with Greenpeace and the ACF. Other environmentalists have been quick to reject proposals for burning biomass, including wood waste, in power plants. Earlier this year, environmentalists released a piece of highly dubious research that purported to show that burning forest biomass would result in five times more CO<sub>2</sub> than a conventional coal-fired power station. This was an absurd proposition that is contradicted by basic science – while the carbon that goes into coal-fired power plants comes from stable storage underground, the carbon in biomass has been taken out of the atmosphere – yet it has sunk into perceptions in some groups. While there are genuine concerns that biomass burning may stimulate further logging of old-growth forests, blanket opposition to biomass combustion will severely constrain Australia's ability to reduce greenhouse gas emissions in the long term.<sup>5</sup>

More alarming is the local opposition that has developed to wind farms. We have seen it on display on the proposed Portland Wind Energy Project in Victoria. Many groups



say they support renewables in principle but end up opposing it almost everywhere in practice. Even the National Trust seems to have been captured by a general opposition to wind farms. The Trust held a workshop at Deakin University in April 2002. The brochure advertising it gave the impression that there is an industrial juggernaut on the way that has to be stopped, and the speakers list was stacked with opponents of wind farms. The Trust has more recently gone public with its opposition to wind farms. Anyone who has read even cursorily the relevant reports of the CSIRO, not to mention those of the Intergovernmental Panel on Climate Change, will understand that there is no more serious threat to Australia's natural environment than climate change. Apart from anything else, it jeopardises decades of work by the National Trust aimed at conserving Australia's natural heritage.

Australian environmentalism is sometimes characterised by certain parochialism, built on a love for the unique character and importance of the Australian landscape. This has been its strength but, in a world where global environmental problems are to the fore, it is also a weakness. Responses to climate change have been filtered through eyes conditioned to see forests, waterways and landscapes. So proposals to burn wood waste were immediately opposed because they may stimulate logging. Proposal for wind farms have been opposed because they may affect visual amenity and cause bird-strike.

Perhaps in Australia, unlike in Europe, the atmosphere is not regarded as part of the environment in the same way as the landscape is. Perhaps this is because in Europe the sky is low and the weather oppressive and encompassing, while in Australia the bigness of the sky invites us to throw out our arms and abandon ourselves to it.

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We now know what we must do to tackle climate change. We must immediately begin reducing combustion of fossil fuels and keep reducing it until fossil fuels are largely phased out. In 1997, after several years of hard-fought negotiations, the rich countries of the world agreed to the Kyoto Protocol that would see those countries reduce emissions by around 5 per cent over a decade or so. This would have been a

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<sup>5</sup> See the forthcoming analyses of what it will take to cut Australia's emissions by 60 per cent by 2050 –

significant first step, yet the agreement instantly came under attack from the fossil fuel lobby in the USA, and the recalcitrant parties managed to insert so many loopholes into the Protocol that, after several international meetings culminating in a conference in Marrakech in 2001, the Protocol will result in minimal reductions in the greenhouse gas emissions of rich countries over the next decade. Despite the emasculation of the Protocol, soon after his election in 2001 President Bush (whose victory was widely seen to have been financed by energy giants including Exxon and Enron) declared that doing nothing would be too costly and repudiated the Protocol completely. Australia followed, poodle-like, the US lead.

There has been only one reason for the reluctance of the rich countries of the world to reduce their emissions and thereby to stave off environmental catastrophe – the perceived impact of reducing emissions on the rate of economic growth and especially the growth of a handful of powerful industries. This has been enough to jeopardise the future of the world. But on inspection the feared large economic costs of shifting to a low-carbon economy prove chimerical. There have been many attempts to estimate the effects of cutting emissions on growth rates using complicated economic models. These models systematically overestimate the negative effects on growth by making a series of assumptions that constrain how businesses can respond to the need to cut emissions.

Yet despite the fact that they systematically overstate the costs of cutting emissions, the economic models consistently produce estimates of reductions in growth rates that are, by any standard, minuscule. They typically conclude that cutting emissions as mandated in the Kyoto Protocol would see the GNP of the USA reduced by half or one per cent by 2010.<sup>6</sup> What does this figure mean? It means that with the required emission reductions GNP in 2012 is expected to be one per cent lower than it would otherwise have been. But this is a tiny amount. If the economy grows at three per cent per annum over the period then GNP will reach a level around 40 per cent higher by 2012 if nothing is done. According to the models, if policies to reduce emissions as specified in the Kyoto Protocol were implemented then GNP would be 39 per cent

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Hal Turton et al., *Deep Cuts*, Discussion Paper No. 48, The Australia Institute, October 2002.

<sup>6</sup> See, for example, Intergovernmental Panel on Climate Change, *Climate Change 2001: Synthesis Report* (edited by Robert Watson) (Cambridge University Press, Cambridge, 2001) p. 343.

higher by 2012. Put another way, instead of GNP reaching a level 40 per cent higher by, say, June 1<sup>st</sup> 2012, it will not reach that level until October 1<sup>st</sup> 2012. The most recent economic modelling studies commissioned by the Australian Government show that ratification of the Kyoto Protocol would reduce Australia's GDP by a trifling 0.2 per cent by 2012, a couple of weeks of forgone growth. The effect of the current drought alone on Australian agricultural output will exceed this cost.

Yet in the face of these disappearingly small effects on economic growth, the USA and Australia have refused to play a part in reducing global greenhouse gas emissions. This is growth fetishism taken to an absurd degree. Confronted with a high probability of environmental catastrophe to be visited on the Earth, the richest people on the Earth – people who systematically overeat and who air condition the outdoor forecourts of service stations – are unwilling to delay increasing their incomes by 40 per cent by a few weeks.<sup>7</sup> Understood this way, growth fetishism appears to be a form of madness.

It is worth dwelling on the perversity of the application of economic rationality to the global environmental threat posed by climate change. A school of influential economists believe that the enhanced greenhouse effect may not be a bad thing. After all while some parts of the world will be flooded and others will become intolerably hot, some regions will become wetter and this will improve agricultural productivity. A thorough assessment of the costs and benefits of global warming may well show that the benefits exceed the costs, especially when compared to the alternative scenario, that is, a dramatic reduction in dependence on fossil fuels. It would be entirely consistent with this line of argument to advocate measures to speed up global warming so that we can enjoy the benefits of a hotter planet sooner.

Perhaps the most influential economist advocating this line of argument is William Nordhaus who in a string of papers has analysed the economic impact of the enhanced greenhouse effect on the USA. Nordhaus begins with the most fundamental assumption of economics:

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<sup>7</sup> In fact, a survey commissioned by the Union of Concerned Scientists in July 2002 concluded that 76 per cent of US citizens want their Government to require power plants and industry to reduce their greenhouse gas emissions. Despite widespread concern, the issue has not gained enough political traction for people to take to the streets over it.

Whether preventive action should be taken depends on the costs of preventing GHG [greenhouse gas] emissions relative to the damages that the GHGs would cause if they continued unchecked.

Fortunately, Nordhaus reassures us,

Most of the US economy has little direct interaction with climate, and the impacts of climate change are likely to be very small in these sectors. For example, cardiovascular surgery and microprocessor fabrication are undertaken in carefully controlled environments and are unlikely to be directly affected by climate change.

Nordhaus calculates that only three per cent of national output in the USA is produced in 'climate-sensitive sectors' – mainly agriculture – while another 10 per cent is generated by 'moderately impacted sectors', such as construction, water transportation and energy utilities.

All economic models assess the impact of measures to reduce greenhouse gas emissions in this way, including those used by the Australian Government to support its refusal to ratify the Kyoto Protocol. Ordinary mortals despair at the way in which our decisions about the future of the Earth's atmosphere have been captured by the economists' worldview.

The clear implication of this sort of analysis is that economic rationality requires human beings to optimally transform the Earth's climate and any other aspect of the natural environment in order to maximise our welfare. Indeed, Nordhaus finally admits that 'the greenhouse effect might on balance actually be economically advantageous'. This whole line of argument is breath-taking for its faith in humanity's ability to control the natural world.

Of course, with global climate change, we are talking about change to a complete system of unimaginable complexity; a system whose intricacies we have barely begun to understand. Who can possibly predict the consequences of global warming except at the crudest level? And what does it reflect about our respect for the natural environment to imagine that we can regulate the whole to suit our own needs? The

belief that twentieth-century humans can manipulate a global ecosystem that has evolved to its present delicate equilibrium over millions of years is perhaps the lowest point of the contempt for Nature that has so characterised the economic worldview of the last two centuries. It is this worldview that is threatened by those who say we must put the world's climate system first.