



Gavin Mooney Memorial Essays 2013

Climate Change and Equity

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Steve Campbell and Lucie Rychetnik

Oscar McLaren

Dora Marinova and Peter Boyer

Fergus Green



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INSIDESTORY

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Preface

The Gavin Mooney Memorial Essay Competition honours the work and memory of the late Professor Gavin Mooney, a health economist who was a tireless advocate for social justice in local, national and international arenas.

Each year the competition will call for entries related to a theme around equity and social justice.

Launched in 2013, the competition seeks to draw public attention to social justice and health equity concerns, and to recognise the public-interest value of writing and writers.

The inaugural competition called for essays on the theme of climate change and equity, in recognition of the work of Professor Mooney's late partner Dr Delys Weston. The judges sought works that:

- are disruptive – challenging or prompting change in the status quo
- incorporate novel ideas or approaches or thinking or style
- tell stories that matter
- are well-written.

Sydney GP Dr Tim Senior took out the inaugural 2013 prize with his essay “Climate Change and Equity: Whose Language Is It Anyway?”. The judges said the winning entry challenges the language of climate change activism, and also incorporates the voices of those who are most likely to be affected by climate change.

The four runner-up entries are by Steve Campbell and Lucie Rychetnik, Oscar McLaren, Peter Boyer and Dora Marinova, and Fergus Green.

In addition to publication in this collection, the winner and four runners-up will be published at *Inside Story*, inside.org.au.

The competition is a joint project of the Sydney School of Public Health at the University of Sydney, the public health blog *Croakey*, and *Inside Story*, an online current affairs publication from the Swinburne Institute for Social Research.

CHAPTER 1

Climate change and equity: whose language is it anyway?

Tim Senior

“I don’t believe in that climate change.” I’d just got back from Darwin in early October. I and many of my GP colleagues had been closely following the news of the bushfires in New South Wales. We’d had our first warning of high fire danger in late September. As I returned to work in Campbelltown, in southwest Sydney, a grey haze of smoke hung in the air. Each breath I took left a metallic reminder of the bushfires at the back of my throat.

My patients were coughing more than usual. Those with asthma were getting through more inhalers. On behalf of patients, I’d been writing letters to the Department of Housing asking for modifications to keep people healthy, and even safe, in the weather extremes they were experiencing. It was what had been predicted. It was what was happening. So I was surprised to hear my patient say this.

“Oh,” I said. “I definitely do.” We’ve known each other a while, and I know her daughter, granddaughter and great grandson well too. We’d gone through quite a lot of medicine together, revealed enigmatically in small episodes like a slow-moving TV drama. This could become another storyline.

As I asked a bit more, and we discussed it for a short time, I realised that it wasn't that she didn't believe in climate change, it was that change in climate as we tend to hear about it wasn't a thing she experienced. Bushfire smoke and unseasonable weather definitely were. And they did affect her in numerous ways.

If I said I was going to write about climate change now, you'd expect me to write about carbon dioxide and other greenhouse gases; of concentrations in parts per million. We might mention farting cows, and have a little chuckle before getting back to the serious business of the perils of allowing average temperature to rise more than 2°C. We'd talk about sea-level rises and debate whether these would be measured in centimetres or metres. We would talk about glaciers and Greenland, polar bears and parasites. And my essay could be confined to the environmental (green-coloured) pages of the newspaper, where it can do no harm to the parallel worlds of business or politics.

My patient's experience is very different. She's experiencing the smell of the air, and her lungs are bringing back up the fine particles of smoke blown across from the Blue Mountains. Her skin feels the change in temperature of 10°C from one day to the next, and the pain in her joints tells her this is an unpleasant and undesirable phenomenon. Her jangling nerves still remind her that she slipped on her steps at a time of heavy rainfall, suffering a nasty fracture of her arm.

Perhaps it's not that she doesn't believe in climate change. She's suffered the effects of it more than I have. Perhaps it's that there are no polar bears to be worried about in Campbelltown. There are no glaciers, shrinking or otherwise, in Queen Street. Almost no one ever experiences the actual average global temperature. The way climate change is talked about just has no bearing on her life.

If I am honest, it doesn't on mine either. To a lesser degree, I experience some inconveniences. My trains are delayed because of bushfires and I've had roads near me blocked by floods, both

of which have prevented me from making it to work. I observe changes in the timing of blossom coming out in our garden. I choose to link this to climate change, though, and I choose to worry about it on behalf of my children and their children to come. I am in a privileged position, being paid above average, having a house in working order, and having no concerns about where my next meal is coming from. What else do I have to worry about, apart from climate change? Contrast this with my patient. She has some very real fears about affording the cooling at home, and worries about her granddaughter's health problems after getting out of a violent relationship. This doesn't leave much room to worry about polar bears and ice sheets. The irony here is that those, like my patients, who will be most affected by the changes in the climate, those least able to adapt, are those who are already struggling and therefore not worrying much about climate change as we conventionally talk about it.

Some words on climate change

What's going on here? Those of us who talk, write and campaign about climate change are often dismissed as being out-of-touch, latte-sipping, inner-city types. After all, the inner city is where the Greens have most of their support. In his book *The Lucky Culture*, journalist Nick Cater describes this familiar bogeyman for the right wing – the university-educated, left-wing elite – talking to itself through the ABC. The stereotype is designed to dismiss these views and make them seem irrelevant, and to ensure that the political and economic changes needed to reduce the effects of climate change don't find traction in the wider community.

It's easy to rebut the stereotype. I don't drink lattes and don't live in the inner city, but I am passionate about doing something about climate change. However, I wonder if there is a kernel of truth in this stereotype. The truth isn't in the claim that there is a new left-wing ruling elite who think they are morally superior, as Cater claims. In fact, I'd suggest that the left are more riven with

self-doubt than the right, who may see themselves as the rightful rulers. The truth is in the language we use. You can almost guarantee that anyone talking about climate change in the terms I've described – sea-level rises, ice sheets, average temperature rises, greenhouse gases – is not in the groups who will suffer most of the effects, either now or in the future. Those affected now talk about bushfires. They talk about floods, hurricanes, drought, crop failure, increasingly salty water, rising food prices. “Ah, yes, you see,” we shout back. “Climate change. I told you so.” For those stuck in the middle of an environmental emergency, it's not helpful.

This big-picture language distances us from those most affected. And it's a pattern of behaviour. We see it in the way we talk about the so-called social determinants of health. I've never heard my patients talk about social determinants. I've never heard them mention the term “food security” either. But I've witnessed the tears after another racial bullying episode at work. I've heard people reluctantly admit that they've not eaten for a few days so the children can. I've seen stress that makes people sick from constant arguments with the housing department about getting repairs for the draughts through the house. I can go home, though, and have a sip of chardonnay, debrief with my wife, perhaps write another article for *Croakey* about the social determinants of health. My patients, meanwhile, have no escape. No need for the words when you live inside it.

We can draw on some good research here, looking at the terminology of the social determinants of health. The Robert Wood Johnson Foundation, which lobbies on health issues in the United States, published a paper on the subject in 2010, *A New Way to Talk about Social Determinants of Health*. As they say, those working with the problems on the ground “didn't necessarily resonate with this frame... We had to talk about the topic in a way that people could understand, that was meaningful, and that didn't align the topic with any existing political perspective or agenda.”¹ The researchers discovered that the concepts contained

in the terminology of the social determinants of health were ones everyone could identify with, but not the terminology itself. If they used a phrase such as “Health starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink,” then there was broad agreement with these ideas. It is striking that anyone who uses the term “social determinants of health” is not likely to be someone who is at risk from them. Again, you have no need for these words if you have no escape from what they hold.

The Robert Wood Johnson Foundation also points to the deep metaphors held by people from different political perspectives. Words such as “equity,” “fairness” and “justice” are not used by people who describe themselves as conservative. It may be that this is why people like Cater can dismiss campaigners on issues such as climate change and the social determinants of health as being of the left. They see such words scattered through the way campaigners talk, which just produces a gut reaction against those talking about climate change. It’s easy to see why those on the right of the political spectrum could view talk about climate change as a cover for producing a socialist paradise. It’s not that it actually is, it’s that the words we use are not the words they would use to describe a desirable world.

The Robert Wood Johnson Foundation points out that those on the right politically prefer to use terms about referring to individual responsibility and opportunity. Ironically, there’s a missed opportunity here. Surely the issue of climate change could be framed as the ultimate conservative cause, the very essence of the roots of the word “conservation.” Action against climate change should be the ultimate conservative policy, preserving the natural systems that our fundamental institutions have been built on. The systems of the market, of buying and selling, depend on stability and predictability. All the predictions about changes to the climate tell us that there will be more weather extremes, with consequent unpredictability about food supply and transport

viability. More disasters will lead to a need for bigger government to co-ordinate rescues and rebuilding. It's not a future a conservative would wish for. Perhaps we could frame some of the solutions as being about taking responsibility in our own areas of influence, about protecting these systems. Taking action on climate is an opportunity for entrepreneurs and small business, if governments enabled it.

Merely knowing about climate change

The problem goes deeper than just a use of language, though. Yes, the language used around climate change and equity distances it from the very people who would be affected most by what is happening. The cause of this disconnect is that we have come to believe that knowing *about* something is the same as knowing something. It's a deep Western cultural belief of ours. It is not necessarily a bad thing, but it is a double-edged sword.

Knowing *about* things has resulted in a huge increase in knowledge and a massive extension of what is knowable beyond our immediate experience. We know about distant stars and have identified some planets in other solar systems. We've discovered cellular mechanisms, with practical implications for making people better from diseases. We've come to understand sub-atomic particles and the counterintuitive party tricks of quantum physics. But knowing *about* things has also led to a devaluing of personal, subjective knowledge, the lived experience, knowing things themselves. In one sense it's another version of colonisation, where a particularly successful system of knowledge acquisition dismisses other ways of knowing, and says they should all become more like it.

There are almost too many examples to choose from, but we don't notice them because knowing about is so deeply embedded. Knowing about underpins the system of academic publishing – that you can write about something, someone can read it and they now know it. The whole education system is built on knowing

about things. Education becomes about transmitting a set of facts. If you have a copy of the PowerPoint slides you know the lecture. It is only because we privilege knowing about that we can have lectures about Aboriginal cultures and think we know what that means. How else could it not matter who assesses learning objectives related to cultural awareness? How could we possibly have Massive Open Online Courses, or Free Open Access Medical Education without equating knowing about with knowing?

Even parenting has become a thing to know about. If you read a parenting book or two, then you'll know enough to be a parent. I've never met a parent yet, though, who says they understood what it would be like before they actually had children.

The whole New Atheist movement is built on knowing facts about religion and finding them demonstrably false. Religion in reply – particularly fundamentalist religion – has tried to contest that these facts are in fact true. Both sides miss the point that, like so many human activities, religion is a practice, and experience, not a set of facts to be memorised.

But how could this be any different? Surely, this is the way things are now, and can't be changed? Even now, though, there are times where knowing, as opposed to knowing about, is seen as a useful skill. I have listened as one of my (urban) Aboriginal patients describes the gentle outline of the hill he walked up and over to get to the practice. I'd never noticed it, until getting on my bike. Some Aboriginal people still follow the natural rhythms of the seasons. The fluctuations of animal migrations, and the rhythm of foliage, flowers and fruit are all signals to be read for those who know. I have had a tour of a local landscape from an Aboriginal elder, who shared detailed, experiential knowledge about how trees affect the growth of competitors, and detailed observations of the construction of an anthill and what this means about the weather to come. This isn't described as knowledge, but as culture. I have heard elsewhere that the blooming of the wattle flowers indicates that it is time to fill out your tax return.

Author Karen Armstrong points out that religion is a set of cultural rituals and practices, not a set of disputed facts to be believed. All cultures have rituals that you won't really understand unless you take part in them regularly. Only in Western culture, where knowing about is valued more than knowing could we jettison many of our communal rituals. I remember as a child at church in England celebrating harvest festival each year. As philosopher Alain de Botton points out, religions mark out time in significant human events like births, marriages and deaths, but also over the year. Our ability to transplant a northern hemisphere Christianity, and its three-year liturgical cycle, to the southern hemisphere is a huge triumph of knowing about over knowing, with the prize a celebration of the midwinter Christmas festival in the hottest part of the year, complete with fake snow.

Think global, talk local, act everywhere

Those who aren't convinced by the arguments in favour of taking action on climate change sometimes claim that belief in climate change has become like a religion. Even using the word "belief" makes this point.

The prophetic fervour about apocalyptic claims is worth commenting on, not because the claims are wrong, but because of the religious archetypes they unknowingly draw on. Like atheists and fundamentalists, though, climate change campaigners have forgotten the central truth of religion. Facts don't change people's minds; stories do. Climate change campaigning, like religion, should not be a debate about the facts, though we pretend it is. Here's your evidence, though. If it were just about the facts, there would be no climate change scepticism. What religion used to do more successfully than any other system was change behaviour, through the ritual and ceremonial retelling and internalising of a series of founding stories. These weren't just read – in fact when they were read, it was often in Latin, a language incomprehensible to most listeners, just adding to the mystique.

The rituals involved participation, art, singing, acting out, ritual movements, silence and, ultimately, emotion.

Perhaps our talk about climate change can draw on this. We are more likely to bring people into action on climate catastrophe through engaging the emotions, with stories, than through summaries of reports from the Intergovernmental Panel on Climate Change. I'm not suggesting that facts be jettisoned, but it is what you do with them that matters. I'm also not suggesting that the solution is to fall down and worship Gaia either. It's worth noting in passing that metaphors like James Lovelock's Gaia theory do get some traction, not because of the science, but because they are stories that some people find attractive.

What I am suggesting, though, is that talk of climate change needs to move from the global and scientific knowing about to the local lived experience of changes on the ground. We might be able to learn again from the Robert Wood Johnson Foundation here. As well as describing how the words traditionally used about the social determinants of health don't connect with the people working on the ground, or the people who experience their effects, the Foundation also describes alternatives. These alternatives connect with people's intuitive understandings of the way their workplaces, their schools and their towns affect their health.

We can see how different the discussion would be if we were to talk about climate change in these alternative ways, especially for those most affected. What are the concerns of people in this situation currently? How well-built is the house where you live? Will it keep you cool in really hot summers? Will it keep you warm in an extreme winter? Is it waterproof against those rainstorms? Can you and all your family afford to eat three meals a day? What if food prices went up? What if your insurance goes up because of the increased risk of storms, floods and fires? How reliable is your public transport? Will that be affected by bushfires or bad weather? How does the temperature affect your health?

What about smoke from fires? How is your mood affected by unpredictable weather?

People across the political spectrum can be engaged by a call to personal responsibility. By walking more, taking public transport, and planting and eating food locally, you save money, get healthier and make it less likely that we'll get those extremes of weather. People can only take responsibility, though, if businesses and government give them the infrastructure to make choices. So quality public transport is required, as is land for community gardens and incentives for reducing emissions.

I don't know that these suggestions are particularly good or imaginative, but they start to explore the possibilities. The Robert Wood Johnson Foundation also gives some good advice about using facts. Instead of using multiple facts pointing the same way, use one: "More facts made people feel like they were being sold or spun." Use a few complementary facts, judiciously placed, and make them memorable. I suspect that the diminishing length of time between severe bushfires may be one of those, but that an average global temperature rise of 4°C is not.

The challenge, then, is to frame climate change problems in a way that relates to everyday experiences. Not just that, but we need to be able to show unequivocally that we care as much for those who will be most affected by climate change, those who are most vulnerable to its effects, as we do for polar bears. We need to demonstrate an awareness of the current challenges faced by those most vulnerable to climate change, because they are also the people who are already the most vulnerable to all the other social problems we create. In short, we need to understand that many of us who think this issue is important come from a position of privilege, but that we stand alongside the most vulnerable, understand their current challenges and are working with them to prevent these getting worse.

Doing this, though, will need a few changes in our approach. It will need us to listen more. We will need to listen harder to

those who will be most affected by climate change. We will need to understand, to know, if possible, rather than just know about their concerns and their experiences. This understanding is unlikely to be couched in the academic or political language we are used to hearing, and is all the more valuable for that. It is also likely to go beyond climate impacts – to speak of political marginalisation, of cost-of-living pressures, of the effects of being a have-not in a world that glorifies the haves.

This language can appeal to those across the political spectrum. It speaks of responsibility and opportunity as well as equity and justice. Then, we will need to allow those most affected to tell their stories to a broader audience. This sounds easy, but it is a trap we fall into all too easily, allowing the privileged to speak on behalf of the less privileged. We can see this at work, for example, in Aboriginal and Torres Strait Islander affairs. This puts an added responsibility on us, though – to ensure the safety of those telling their stories, to stand with them and take heat on their behalf. We only have to note the recent example of what happens when we do something as radical as have a female prime minister to see the heat that generates. Witness also the class-based insults thrown by the privileged from all sides of politics when someone like Rick Muir gets elected to the Senate. We can expect that when vulnerable people talk about what will happen to them, and what is already happening to them, as a result of climate change, their views will be discounted because of their vulnerability. The opportunity is huge – this is the chance to act out our commitment to hear the voices of marginalised and vulnerable communities, and to allow them a say in their future and control over their own lives.

I have argued that we need another way of talking about climate change, one that uses what we know from the science to speak to people's lived experience. One that draws on story and art and music, different cultural views and ritual and ceremony. We need to use this opportunity to hear from those who will be

most affected, and to project their voices. We need to engage reason and touch emotion. And we need to move the debate away from average temperatures, glaciers and polar bears, which can be kept on the environment pages, and instead discuss how to keep the economy operational, the trains running and the power on. We need to say that whatever it is you care about, whether it's agriculture, schooling, defence or health, the changes we are seeing in our climate will have a profound impact. This is traditionally a left-wing issue, but for those on the right, the institutions they believe in will be profoundly affected too, and this doesn't depend on "belief" in the science.

Now if a patient tells me, "I don't believe in that climate change," I can shrug, and ask what she values. The science is established. Her health depends on smoke-free air, clean water, available and affordable fresh fruit and vegetables, and shelter against the elements that is capable of withstanding whatever the weather can throw at it. Her health also depends on those around her having the same – we don't need trips to hospitals or funerals for friends and family. But the point is that my health depends on these things too, and so, whoever you are reading this, does yours. We are all living in a shared life-support system. If we want to continue living healthy lives, it's time we stopped trashing it. We need a language we can all understand, and we need to hear from those who are first in the queue to be harmed.

Author

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Endnote

1. Robert Wood Johnson Foundation, *A New Way to Talk about Social Determinants of Health*, 1 January 2010, accessed at <http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf63023>.

CHAPTER 2

Reframing equity for action on climate change

Steve Campbell and Lucie Rychetnik

Imagine you are a Tuvaluan with a home where your ancestors have lived for thousands of years. You embody a great depth of culture and connection to a small green-and-white disc in an enormous expanse of blue. Your past and future are inherently linked to this coral atoll.

The threat that you face from climate change is the potential that your sovereign nation will disappear in the next fifty years because of the combined effects of rising sea levels and more intense storm surges. These changes will affect your language, your culture and your very ability to survive.

Now consider the similar scenarios of loss and relocation in other parts of the world, such as the Maldives, Bangladesh, Alaska and the Yangtze delta. Entire communities and even nations have been displaced and lost as a result of climate change, which they hardly contributed to and have almost no power to stop.

On the coastline of Australia and other wealthy nations, beachside properties – also at risk – sparkle in the sun. But a major difference between the Tuvaluan already contemplating the death of her nation and wealthy Westerners living on coastlines around

the world is our capacity for effective intervention – both to limit climate change and to moderate the impacts on our own lives and communities. If the wealthy majority have great incentives and abundant means to act, then why have they not done so?

The responsibilities and pain of climate change fall unequally. For many of us the value of equity is important and deeply felt – providing sufficient rationale to support action on climate change. Indeed arguments based on equity and justice have been a cornerstone of the climate debate for many decades. The fact that “climate change and equity” is the topic for the inaugural 2013 Gavin Mooney memorial essay is fortuitous and timely. It provides an opportunity to examine one of the most significant challenges facing humanity.

The inequities of climate change are real and stark – in terms of who is most responsible and on whom it has most impact. Yet our traditional equity arguments have so far failed: they have proven too narrow to mobilise the mainstream, and haven't challenged those who benefit most from blocking an effective response to climate change. Concerns about equity and climate change are perceived as primarily aligned with the progressive left of politics. We propose a reframing of equity in the climate change debate to embrace the middle ground. This repositioning articulates an emerging shift in the “us” and “them” of responsibility and impact, to recognise that the majority of us are on the same side, and realigns the balance of power to better support national and international action.

Effective action on climate change is now overdue

On 27 September 2013 the Intergovernmental Panel on Climate Change, or IPCC, delivered the first part of its Fifth Assessment Report. Thousands of world-leading scientists contribute to the IPCC to produce conservative consensus reports, which confirm that climate change is real and unequivocal.¹ There is also scientific consensus that the enormous disruptions to the

equilibrium of our atmosphere, global warming, and changing weather patterns are largely the result of rising atmospheric carbon dioxide caused by burning fossil fuels such as coal and oil, and by global deforestation: a causal relationship demonstrated with as much certainty as that of smoking causing lung cancer. Importantly, the world's leading scientists *and* the world's governments have agreed that we must stay below a 2°C rise in global mean temperature to prevent the impact of climate change from becoming catastrophic.²

Yet carbon dioxide emissions continue to rise and on current projections we are likely to go above a 2°C rise within this century.³ Before the industrial revolution, the mean atmospheric concentration of carbon dioxide was 280 parts per million, or ppm. In 2013 the concentration of carbon dioxide rose for the first time above 400 ppm.⁴ We have entered the Anthropocene – a new geological epoch distinct from all others, defined by the impact of humanity on nature. Humanity is re-engineering the physics of the planet in radical ways by changing the chemical content of the atmosphere and reconstructing natural systems such as the Southern Oscillation Index (El Niño/La Niña) and the Atlantic Gulf Stream. We have also caused climate feedback loops, such as the melting of Arctic sea ice, which results in less reflection of solar energy and more absorption of heat into the ocean; and the thawing of northern tundra, which causes the release of methane, a potent greenhouse gas. For the communities already displaced by rising sea levels and destroyed by more severe and frequent hurricanes and storms, climate change is already catastrophic.

In other parts of the world, food and water security are growing concerns. Climate change has had an impact on farming communities in Africa, Southeast Asia and China.⁵ It has contributed to conflicts in Sudan, Somalia and Syria, where wars are intensified by climate change.⁶ In Australia, already one of the driest countries on the planet, rainfall patterns in critical agricultural

lands are also changing and we have witnessed the increasing intensity of bushfires.

As consumers of fossil fuels, and recipients of the blowbacks of the physical world, we are essentially committing violence on ourselves. But judging by the current political responses in many countries – and right now, particularly in Australia – the magnitude and extent of the damage, and damage yet to come, have not yet been fully comprehended.

So what of equity?

For over two centuries, the burning of fossil fuels has stimulated economic growth, lifted billions of people out of poverty, extended life expectancy, and developed the extraordinary comforts of the Western lifestyle. We also know, however, that beyond a modest point of consumption a carbon-intensive lifestyle doesn't make people healthier, or likely happier. Indeed, as researchers Richard Wilkinson and Kate Pickett have shown, there are no observable additional benefits to life expectancy once fossil fuel consumption rises above four tonnes of carbon dioxide emissions per capita per year.⁷

In Australia we emit around nineteen tonnes of carbon dioxide per capita per year. Our emissions are almost double the OECD average, four times that of China, and twenty times that of India.⁸ The consumption of fossil fuels by the richest countries has disproportionately affected the poorest economies⁹ and had the most negative health impacts on the poorest populations.¹⁰ Our higher-than-average carbon dioxide emissions and significant fossil fuel exports are partly responsible for the harsh and escalating impacts of climate change on the poorest and most disadvantaged peoples, who mostly live in countries with the lowest carbon dioxide emissions. High levels of fossil fuel consumption also generate extraordinary profits for the rich and super rich – especially for the billionaire owners of coal and oil companies.

Equity is about social justice. The term “inequity” is often used to refer to unfair differences of access or opportunity in the economic, political and social realms – differences that can be recalibrated and remedied. Concerns about equity also relate to morality or ethics – that is, doing the “right” thing by others. In the political sphere, it is acceptable to talk about equity in terms of a fair and equal opportunity to participate in society and thrive. Few on the centre-left or centre-right of politics disagree with such sentiments; the distinctions are most likely to be about how we pursue such goals, including whether the emphasis is on communal or individual paths. Thus, although there is much variety in how the notion of equity is interpreted and applied, a good or civil society is often described as one that achieves fairness in people’s access to security, education, health and wellbeing.

But equity also relies on the distribution of economic and political power – power that is used to create injustice as much as it can be used to rebalance the scales – and this intrinsically takes the commitment to equity towards the left of politics. Herein lies what has proven to be one of the greatest challenges for the climate movement, whose antecedents and strongest allies have come from both the traditional and the progressive left. Left politics have guided the principles and values that underpinned environmental activism in the past, and informed the solutions that have been pursued. As has been increasingly recognised, a perceived alignment between concerns about climate change and progressive left politics has resulted in limited engagement of the political right.¹¹ It has also enabled those defending and promoting the interests of the fossil fuel industry to play wedge politics on climate change to keep it out of the mainstream.

The traditional “equity frame” for addressing climate change is one that challenges developed nations, which protect their current high levels of fossil fuel consumption at the expense of those least responsible but most affected by rising global temperatures and adverse weather events. Indeed the principles of

equity as outlined in the United Nations Framework Convention on Climate Change, or UNFCCC, suggest that the most developed nations have the greatest responsibility to decarbonise – and should do so more rapidly than those whose economies are still developing. This is because developed nations are primarily responsible for the cumulative historical carbon dioxide in the atmosphere, and have the greatest capacity to carry the burden of remediation. Thus the UNFCCC secretariat has tried to negotiate country-specific emission reduction targets (or exemptions) based on historical emissions and future need for emissions to support economic growth.

The same principles of equity can also be applied to distribution of the global “carbon budget.” This refers to the maximum remaining carbon dioxide that could still be released into the atmosphere before the world reaches the critical and catastrophic 2°C rise in mean global temperature. It is now known that the remaining global carbon budget is 565 gigatonnes of carbon dioxide emissions.¹² This adds important information to future negotiations, as they must account for not only the equity of emission targets (or exemptions) but also the finite size of the carbon budget that can be safely allocated.

Critically, however, and irrespective of what allocations of carbon dioxide emissions may be deemed fair and equitable, intergovernmental negotiations do not address the powerful market forces that work outside the scope of such potential agreements. The global fossil fuel industry has existing reserves of coal, oil and gas that are known to contain 2795 gigatonnes of carbon dioxide – almost five times the maximum amount that it is “safe” to burn.¹³ And the main energy corporations continue to search for more reserves, with explorations expanding into new territories such as the Arctic and the Canadian tar sands. These current and predicted fossil fuel reserves contribute to the balance sheets of major energy companies and buoy up their share prices – corporations like Chevron, ExxonMobil, Saudi Aramco,

BP, Shell, Sinopec, PetroChina and Total, all in the top twelve companies of the world by revenue.¹⁴ The primary objective of such companies is to maximise the demand for and consumption of fossil fuel.

This essay does not seek to challenge the capitalist system. There are thousands of other major companies in the world whose businesses do not contribute to or perpetuate catastrophic climate change. Indeed harnessing the market to build an alternative sustainable energy industry will be the only way that the world will meet its energy needs and survive. But the most significant and urgent inequity of climate change today is how the greatest financial power and political influence currently lies with a specific industry that is totally out of step with the limits of nature and global collective interests.

International negotiations and national politics have mostly failed

There are new ways to meet our needs, to lift people out of poverty and limit climate change, but the path to a brighter future is being blocked by the past, by the vested and invested coal and oil barons.

– Kumi Naidoo and Bill McKibben, 2013¹⁵

The UNFCCC has been meeting since 1992. The 1997 Kyoto Protocol led some countries to commit to binding emissions reduction targets, most importantly in the European Union. Yet countries such as Australia negotiated *increased* emissions, and the United States (the world's highest emitter at the time, and still the worst historically) did not commit to anything. Other major emitters of carbon dioxide, such as China, India and Brazil, were exempt – arguing that to lift their populations out of poverty, their own development must remain carbon-intensive. At the Bali UNFCCC conference in 2007 most countries agreed to a “road map to an agreement” for emissions reductions for developed countries in a range between 10 per cent and 40 per cent by 2020.

But subsequent negotiations collapsed in Copenhagen in 2009, and little has been achieved since, including in Warsaw in 2013.

These international negotiations have been hindered by country delegations focused on short-term national interests and local domestic politics, which are mostly unsympathetic to the urgency of climate change and to sharing the burden of remediation in the name of equity. But this often-intransigent self-interest is further confounded and often manipulated by the strategic interference of powerful lobby groups representing the interests of the oil, coal and gas industries. The owners and CEOs of the world's largest fossil fuel companies have systematically and effectively directed their financial power to disrupt and control international negotiations and to minimise agreement. They employ public relations agencies like Hill + Knowlton or Burson-Marsteller to create and perpetuate doubt in the minds of the public about the science of climate change, clearly repeating the strategies of the tobacco industry in previous decades.¹⁶ They send large numbers of lobbyists to the climate negotiations, often on country delegations. They fund think tanks that support climate change denial, such as the Institute of Public Affairs, and "astroturf" questionable grassroots groups like the anti-wind power lobby.¹⁷ They have also developed significant influence over national politics and media.

One of the greatest obstacles facing an effective response to climate change is the degree to which it has become so politicised. Many factors have contributed to enabling vested interests to perpetuate the idea that climate change is only a far-left concern. This polarisation has been employed to keep climate change out of the mainstream and to ensure that citizens on the centre-left or centre-right of politics engage in a political tug of war over climate change, rather than uniting to demand real and effective government intervention. In the United States, the United Kingdom and Australia, for example, climate change has been embroiled in energy- and time-depleting culture wars,

which result in stagnation and inaction, and mask the potential for agreement about our common goals. These conflicts also serve to divert attention from the activities of the industries that are primarily responsible for the problem, and that have the most to lose if international action on climate were effective.

Reframing equity for climate change action

We support the moral and ethical arguments that wealthier nations should lead the way in reducing carbon dioxide emissions, and assist poor and developing nations to ameliorate the effects of climate change. Yet the traditional equity frame hasn't engaged sufficient numbers in the mainstream populations of developed countries; too many people either do not perceive themselves to be affected or resent being asked to feel responsible for the plight of others. Equity arguments easily invoke the concepts of "us" and "them," thus enabling the tactical and deliberate politicisation of climate change by the fossil fuel industries and their aligned politicians.

So how can we, as the only species that has both an intense survival instinct and a deep sense of ethics, respond effectively to the looming climate catastrophe? How can we ensure that concerns about climate change will resonate with enough people of various political persuasions to mobilise effective national and international action? And how can we do justice to the most vulnerable among us as well as to our future generations? Right now, we believe the answer is to do justice to *ourselves*.

The increasing focus within the climate change movement on the actions of the wealthiest fossil fuel companies¹⁸ leads us to reconsider and reorient our thinking about the inequities of climate change. This emerging perspective is less focused on the relationship between "us" as the peoples of the developed world and "them" as the peoples of the developing world. Rather it points to the relationship between "us" as the global majority of humanity affected by climate change and the new "them," framed

as those actively advancing climate change by owning, extracting, selling and investing in fossil fuels. This new equity frame highlights different kinds of disparities and raises alternative ethical and political arguments. For example:

- Fossil fuel companies are making astronomical profits; yet “they” receive massive tax breaks and subsidies by national governments at “our” expense.
- “They” fund the pseudo-science and fake debates about the science of climate change that distract and hinder real political negotiations on climate action.
- “Our” properties, families and communities are bearing the brunt of climate change arising from more frequent and destructive weather events such as intense storms and bushfires.
- “Our” taxes pay for the clean up – funding the fire brigades, emergency services and the damage to shared infrastructure. “We” also pay for the rising costs of insurance.

The reframing of equity for climate change action identifies more common ground between developed and developing nations, and between ordinary people on both sides of politics. The mainstream majority in all nations is being manipulated and exploited by a minority of extremely wealthy and influential individuals for the purpose of maximising their profits. In terms of public communication about climate change, this reframing can also be seen as a shift in focus from “the mainstream versus the far left” to “the mainstream versus the far right.”

Traditional equity debates about climate change have tended to focus on redressing the impacts of climate change for the poorest and most disadvantaged. But within that frame, climate change is often perceived to be about “them” – that is, unknown peoples from other lands – while the majority perceive themselves to be unaffected. The new equity frame places the majority of “us” on the same side as the underprivileged – not only because the impacts will ultimately affect the majority, but also because

we are all being manipulated to do nothing by those on the far right. Under the new equity frame the allocation of responsibility and the locus of the “problem” is located with the greatest power and wealth, where we will find those who own and run the largest of the world’s fossil fuel companies. The new equity frame names the perpetrators for who they are, and embraces the middle ground. It not only changes the conversation about equity in climate change, but most importantly it also changes the rules for climate action.

Emerging approaches for effective climate action

The greatest drivers for action on climate change are likely to be based on our human commitment to self-preservation and survival. We need to harness the catalysing force of self-interest and engage the political mainstream to drive large-scale social change. We also need solutions that will appeal across the political spectrum, while acknowledging that people will focus on those that most align with their values and cultural group. For some, the impact of climate change on the poorest nations will continue to drive their commitment to intervene. For others, action on climate change will primarily be about family (including future generations of family) or their love and responsibility for local land. Whatever our drivers, there are actually many common goals and speaking with a broader frame is essential. And the strongest drivers and most effective solutions are likely to be economic.

Currently, most major banks and superannuation funds hold large investments in fossil fuel companies. While this is a potential challenge, it also highlights how the market is a principal source of leverage and power. And as the financial risks associated with these investments become more widely recognised, divestment of fossil fuel holdings becomes an obvious and effective strategy for addressing climate change. Divestment can also bypass the politics of wasteful and vindictive culture wars, which detract

from the real issues, to instead foster a broader recognition of how the fragile reliance on fossil fuels is being manipulated by those who reap enormous benefits at our expense.

Encouragingly, new approaches to understanding and responding to climate change are gathering momentum, offering an expanded menu of emerging and predicted actions that are global, national, local and personal. For example:

- The market will start to recognise “carbon risk” – that is, the long-term financial risks associated with investing in carbon-intensive technologies and companies – and find alternative investments.
- The technology of renewable energy is becoming available at a scale to replace fossil fuels, and the market is starting to invest in this area.
- Organisations such as churches, unions, cities and universities are already divesting their holdings in banks and superannuation funds that invest in fossil fuels.
- These same organisations and individuals can ensure their investments are directed to transformational financial institutions and to re-engineering the energy economy towards more sustainable solutions.
- Communities from both sides of the political centre are beginning to campaign against the expansion of new fossil fuel projects, in Australia and around the world. For example, there are alliances emerging between environmentalists and farmers campaigning against coal-seam gas.
- Innovations and investment in sustainable technologies will enable developing countries to “leap frog” towards industrial and social development that is not dependent on fossil fuels.
- Individuals and families also contribute to the new economy by reducing their consumption of fossil fuels and adopting alternative energies in the form of household solar and community wind farms. Other personal actions include

embracing public transport, and reducing food waste and food miles.

Finally, while we cannot currently rely on political leadership and international diplomacy to solve the problems of climate change, we cannot give up on them. We must hold governments accountable for their unhealthy relationships with the fossil fuel industry, and ensure they fulfil their responsibility to achieve a global agreement on climate change. In the end, all of these actions combined, even if taken in the name of self-interest, will contribute to securing our own future, as well as that of our fellow humans in the most vulnerable parts of the world.

Unlike other civilisations that have collapsed in the past, we have several things in our favour. We know that climate change is happening and we understand why. We also have the scientific and economic capacity to decarbonise and retool our world for a more sustainable future. This global shift can be achieved both through the brilliance of human innovation and through informed and committed endeavour. We have access to solutions that provide “shared value” for people and for companies with a positive environmental impact, that decarbonise the old and new economies, that lift people out of poverty, and that eradicate the energy systems of the nineteenth century. This transformation also requires us to recognise and respond to the stalling actions of the fossil fuel industry. Humanity can face this challenge, and solve it, as long as we get on with the job.

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Endnotes

1. Intergovernmental Panel on Climate Change, "Summary for Policy-makers," *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2013.
2. United Nations, *Copenhagen Accord*, United Nations Framework Convention on Climate Change, 18 December 2009.
3. Intergovernmental Panel on Climate Change, "Summary for Policy-makers: Projections of Future Changes in Climate," *Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007*, Cambridge University Press, 2007.
4. National Aeronautics and Space Administration, "For First Time, Earth's Single-Day CO₂ Tops 400 ppm," media release, 9 May 2013, accessed at <http://climate.nasa.gov/news/916>.
5. David B. Lobell, Marshall B. Burke, Claudia Tebaldi, Michael D. Mastrandrea, Walter P. Falcon, Rosamond L. Naylor, "Prioritizing Climate Change Adaptation Needs for Food Security in 2030," *Science*, 1 February 2008: vol. 319, no. 5863.
6. Solomon M. Hsiang, Marshall Burke, Edward Miguel, "Quantifying the Influence of Climate on Human Conflict," *Science*, 13 September 2013: vol. 341, no. 6151.

7. Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Equality Is Better for Everyone*, Penguin Books, 2010, p 219.
8. OECD, "Chapter 3: Climate Change," *OECD Environmental Outlook to 2050: The Consequences of Inaction*, OECD Publishing, March 2012, p 78.
9. Robert Mendelsohn, Ariel Dinar and Larry Williams, "The Distributional Impact of Climate Change on Rich and Poor Countries," *Environment and Development Economics*, April 2006: vol. 11, issue 02, pp 159–78.
10. Jonathan A. Patz, Holly K. Gibbs, Jonathan A. Foley, Jamesine V. Rogers, Kirk R. Smith, "Climate Change and Global Health: Quantifying a Growing Ethical Crisis," *EcoHealth*, December 2007: vol. 4, issue 4, pp 397–405.
11. Adam Corner, *A New Conversation with the Centre-Right about Climate Change: Values, Frames and Narratives*, Climate Outreach and Information Network, June 2013, accessed at <http://talkingclimate.org/wp-content/uploads/2013/06/COIN-A-new-conversation-with-the-centre-right-about-climate-change.pdf>; James Randerson, "Why a Watermelon Tells You What's Wrong with the Climate Debate," *The Guardian*, 11 September 2013, accessed at <http://www.theguardian.com/environment/2013/sep/11/watermelon-climate-debate>.
12. Bill McKibben, "Global Warming's Terrifying New Math," *Rolling Stone*, 19 July 2012.
13. Carbon Tracker Initiative, *Unburnable Carbon: Are the World's Financial Markets Carrying a Carbon Bubble?*, July 2011, accessed at <http://www.carbontracker.org/wp-content/uploads/downloads/2011/07/Unburnable-Carbon-Full-rev2.pdf>; Bill McKibben, "Don't Imagine the Future: It's Already Here," *Organization*, 2013: vol. 20, no. 5, pp 745–47, accessed at <http://m.org.sagepub.com/content/20/5/745.full.pdf>.
14. "List of Largest Companies by Revenue," *Wikipedia*, accessed on 26 September 2013 at http://en.wikipedia.org/wiki/List_of_largest_companies_by_revenue.
15. Kumi Naidoo and Bill McKibben, "Do the Math: Fossil Fuel Investments Add Up to Climate Chaos," *Huffington Post*, 1 November 2013,

accessed at http://www.huffingtonpost.com/kumi-naidoo/do-the-math_b_4192801.html.

16. Greenpeace, *Dealing in Doubt: The Climate Denial Machine vs Climate Science*, Greenpeace USA, September 2013, accessed at <http://www.greenpeace.org/usa/Global/usa/report/Dealing%20in%20Doubt%202013%20-%20Greenpeace%20report%20on%20Climate%20Change%20Denial%20Machine.pdf>; Corporate Watch, accessed at <http://www.corporatewatch.org/?lid=395/strong/font/pp#climate>; Source Watch, accessed at <http://www.sourcewatch.org/index.php?title=Burson-Marsteller>.
17. Simon Chapman, "The Web of Vested Interests Behind the Anti-Wind Farm Lobby," *Crikey*, 13 October 2011, accessed at <http://www.crikey.com.au/2011/10/13/the-web-of-vested-interests-behind-the-anti-wind-farm-lobby/>; ABC News, "Greens Target Anti-Wind Farm Lobby Group Waubra Foundation over Oil Industry Links," ABC website, 7 November 2013, accessed at <http://www.abc.net.au/news/2013-11-07/greens-bid-muzzle-anti-wind-farm-lobby-waubra-foundation/5075190>.
18. Richard Heede, "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010," *Climatic Change*, 2013, accessed at <http://link.springer.com/article/10.1007%2Fs10584-013-0986-y#page-1>.

CHAPTER 3

Markets say the darnedest things

Oscar McLaren

A quarter of a century after the British conservative party oversaw the privatisation of British Petroleum, a newly minted conservative prime minister was under pressure to lend the company a hand. On 20 April 2010, a blowout on BP's Deepwater Horizon oil rig started the largest accidental marine oil spill in human history, taking eleven lives immediately and the livelihoods of countless others over the following days, weeks and years.

Two months later, the world was still watching live television images of oil gushing from the sea floor and a global outcry against BP was growing louder. Curiously, the chairman of the British insurance giant Royal Sun Alliance, John Napier, took this opportunity to write a petulant letter to US president Barack Obama. Napier accused Obama of being anti-British and unstatesmanlike:

Your comments towards BP and its CEO as reported here are coming across as somewhat prejudicial and personal... The leak may take time to fix, and it will be, but Afghanistan and Iraq will take much longer.¹

It was just one of many pieces of transatlantic trash talk against a US president dealing with an unprecedented environmental catastrophe. A few days later, British chancellor George Osborne relayed that the “prime minister is... clear that we need constructive solutions and that we remember the economic value BP brings to people in Britain and America.”²

As a *Daily Mail* editorial was keen to point out, eighteen million Britons own shares in BP, either directly or through pension funds, and the company was to that point responsible for one-seventh of all dividends paid by British companies. The *Daily Mail* believed that prime minister David Cameron was not being tough enough in defending his nation’s most high-profile polluter, and was “seemingly more concerned about the ecology of the Gulf of Mexico than securing BP’s future.”³

It was a remarkable spat between two close allies. But compared to the discussions that should have been happening, the narrative of an Anglo-American stoush offered an almost morale-boosting distraction from the broader issues raised by the Gulf of Mexico spill. It left unaddressed the question of what would have happened if a Chevron oil rig had spoiled the Gulf of Mexico, or if BP’s Deepwater Horizon rig had blown out in the North Sea, sending crude oil sweeping the beaches of the English east coast and ruining the cod and crustacean fisheries in its path. In short, the political disagreement showed how little serious thought is given to weighing the benefits of fossil fuels against their catastrophic consequences.

Of course, through its prodigious contribution to greenhouse gas emissions, BP is causing climate change, and through sea-level rise and ocean acidification alone it *is* ruining the beaches of England and the fisheries of the North Sea. In the same way, Chevron is ruining the Gulf of Mexico and the industries on which millions of Americans depend. In this light, the *Daily Mail* was at least partly right – there is a zero-sum game between BP (and its fossil fuel stablemates) and the environment.

Fewer than one hundred companies stand responsible for nearly two-thirds of the global greenhouse gas emissions released into the atmosphere during the industrial age.⁴ But in Australia and many other countries in the West, the debate is not about whether we prefer the oil and coal industries or a functioning planet. Instead, after years of public-relations work by the world's biggest polluters, the debate about climate change is framed as a choice between a functioning planet and a functioning economy as a whole. And in Australia when asked whether we would like an economy or the environment, we have voted overwhelmingly for the economy. But before we accept this as an answer we must check whether this absurd question is the right one to ask.

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If you believed television advertisements in Britain in 1986, news of the privatisation of British Gas was taking the country by storm. One ad began in a pub with a man dressed in tweed and a preposterous bow tie asking a younger “everyman” to pass on a secret tip to someone called Sid. In a hushed, slimy tone, the tweeded man says that buying British Gas shares couldn't be easier.

We soon learn that stock tips and insider trading are foreign concepts to our everyman, who proceeds to tell everyone he bumps into. By the end of the ad, all his acquaintances, from the postman to a charming pensioner, are off to get some of the action for themselves. The message was clear – now everyone can access the sort of wealth usually reserved for people dressed in tweed – and it was a sweetly egalitarian gloss for a deeply stratifying policy.

The same narrative was trotted out repeatedly in Britain over the late 1970s and 1980s as Margaret Thatcher sold off everything from Jaguar to British Petroleum to British Telecom. In Australia, the story was told with particular enthusiasm during the Telstra privatisation – a big step along John Howard's path towards turning Australia into a “nation of shareholders.” But Thatcher and Howard were doing more than merely panning for votes in the gravel of

middle-class fear and loathing. The public float of Telstra shares was more than an invitation to buy a dud stock (nearly fifteen years on, T2 shares are still trading well below their issue price). It was a call to share in the very specific ideas that neoliberal economics has about ownership, efficiency and value.

Margaret Thatcher told the 1987 conservative party conference that “soon there will be more shareholders than trade unionists in this country. Of course, not all trade unionists are shareholders – yet. But I hope that before long they will be.”⁵

It was a touching idea, but the “nation of shareholders” project is best seen not as a leg-up for trade unionists, but as an all-ages curriculum on the pleasures of capital. Among the first lessons were those in the great capitalist sport of externalising costs and internalising profits. The “nation of shareholders” plan encouraged the new “mum and dad investors” to view the announcement of job cuts at big companies not as stories of upheaval and downward mobility for the families of those retrenched, but as efficiency measures that would thunder home as an extra few cents in the next dividend payment. It was an invitation to see a document titled “climate change and equity” and expect to read about a stock opportunity.

Whatever we now make of the success of the great privatisations, the political and ideological campaign was a blazing success. The humble dollar now sits at the centre of a dizzying array of public policy discussions, especially those about the environment. While the global payday lender MasterCard assures us that some things are priceless, in the real world, truly priceless things like the Great Barrier Reef must earn their keep and are priced to the nearest hundred million dollars.⁶

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It was into this public consciousness that Nicholas Stern released his *Stern Review on the Economics of Climate Change* in October 2006. It was not the first, or the most ambitious, effort yet to survey the costs of climate change, nor was it peer reviewed. But it

was, and is to this day, the highest-profile attempt to place an economic framework around climate change. Once released, it was quickly distilled to the simple calculus that the globe could stabilise atmospheric carbon dioxide concentrations at 550 parts per million, or ppm, by 2050 at a cost of around 1 per cent of GDP per annum. The costs of doing nothing were put at between 5 and 20 per cent.

As peer reviews started to roll in, there were those who lent support to the paper, including four winners of the Nobel Prize for economics. Then there were those like environment economist Richard Tol, who said, “If a student of mine were to hand in this report as a Masters thesis, perhaps if I were in a good mood I would give him a ‘D’ for diligence; but more likely I would give him an ‘F’ for fail.”⁷

There were skirmishes over whether Stern had deliberately chosen extreme worst-case scenarios for his modelling of the costs of inaction, and whether he had underplayed the costs of cutting emissions. The grand debate, however, was over discounting, or how to balance the scales between the interests of the current generation and the interests of those who will follow.

Economists frequently place less present value on things that will be obtained or occur in the future, but Stern took a very different approach. In the wake of the release of the *Stern Review*, he stated that the traditional approach of “discounting”

says that an individual who is born 30 years after another individual would, if you use a pure time discount rate of two per cent per annum, be given half the weight of the individual born earlier. Many people for a century or more have thought hard about the pros and cons of discounting the utility of future generations, and I still have not heard a convincing ethical argument for indulging in that kind of discrimination, particularly in the context of issues which affect the entire planet. We may know lots of people who

don't care about the future, but that doesn't mean this is the right ethical standard to apply for such an important issue, profoundly affecting the welfare of future generations.⁸

This position led Stern to impose a discount rate of 0.1 per cent – a tiny fraction of the rate commonly applied in the literature of climate change economics. The key criticism of Stern's approach was that it takes no account of future economic growth that will, it is argued, leave later generations better off and therefore in a better position to take action against climate change and deal with its consequences.

In the words of William Nordhaus, a veteran of climate change economics, orthodox discounting models involve minimal emissions cuts at first: "The efficient strategy has more investment in conventional [*read: polluting*] capital at the beginning and can use those additional resources to invest heavily in climate capital later on."⁹ In other words, if future generations ask their grandparents why they didn't do more about climate change, the grandparents will offer the grandchild ten ice creams and recall how they could only ever afford one.

The debate around discount rates raises some genuinely meaty ethical questions. But what is often missing is the question of how long the current model of economic growth can continue in a world of finite natural resources and a rapidly changing climate. At some point the "optimal" gradualist approach of Nordhaus and friends must intersect with climate science, and the question has to be asked: How much carbon will be released into the atmosphere under their approach? According to Martin Weitzman, another Stern critic, the answer is ">600 ppm... with temperatures expected to continue rising to well above [3°C above pre-industrial levels] *after* year 2105."¹⁰

Yet the global scientific and political consensus is that in order to prevent dangerous, runaway climate change, global temperature rises must be limited to 2°C. Even the Copenhagen

Accord of December 2009 – widely seen as a failure in the face of an urgent need for climate action – recognised 2°C as the upper limit of acceptable global warming.¹¹ And, according to the International Energy Agency, or IEA, and a host of other authorities, the required atmospheric concentration of carbon dioxide needed to achieve this limit is 450 ppm – less even than the 550 ppm advocated by Stern. The difference between the standards accepted by the global community and the standards offered by economic orthodoxy are breathtaking, and offer a first glimpse into the problems with the way the economy and the environment intersect.

The issue lies partly in the fact that even the most advanced economic modelling has difficulty determining what to do with massive, existential risks such as rapid melting of the polar or Greenland ice sheets, or combustion of the Amazon. This is a point that is acknowledged by many critics of the *Stern Review*. It has been commonplace for some time to note that climate change is not linear and it is difficult to predict the circumstances under which tipping points may be reached, beyond which the effects of climate change simply cannot be managed. While a computer running a consumption-smoothing analysis may say that more than 600 ppm of carbon dioxide concentration will be the result of an optimal emissions reduction strategy, those familiar with climate science have already decided that the risks of this are far too high.

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If the tools and brains available to academic economists find it hard to agree on an easy path to a sensible climate, there must be little hope for those who are actually in charge of the global economy. Whereas the discipline of economics, when practised well, acknowledges the frailties of its methods and the vagaries of operating at the intersection of science, society and capital, global markets are not quite so circumspect. Bitter experience has taught us that in today's economy the allocation of capital is, like rugby league, a game of genius played by morons. And

so it should be no surprise that while humans have been fretting about how to approach climate change, global capital markets have taken a more bacchanalian approach.

Predictions of climate change are often fraught, but the science of how to remain below 2°C of warming since pre-industrial levels is reasonably settled. The IEA puts the “carbon budget” – that is, the amount of carbon dioxide that can be emitted into the atmosphere in order to remain below 2°C of warming – at 884 billion tonnes by 2050.¹² Meeting this budget will require that, in the words of the IEA, “more than two-thirds of current proven fossil-fuel reserves” be left in the ground.¹³

The implications of this for global energy markets and the valuation of some of the largest companies on the planet are staggering. And this makes it all the more perplexing that a 2013 London School of Economics study found that up to US\$674 billion had been spent in the previous year on finding new fossil fuel reserves and developing increasingly adventurous ways of extracting them.¹⁴

It is not just those fond of hemp clothing and organic rubber sandals who are warning of the risk to valuations of fossil fuel companies. In January 2013, HSBC issued a report on the implications for fossil fuel companies of effective curbs on the globe’s carbon emissions. HSBC found that an effective curb would indeed render huge quantities of fossil fuel reserves unburnable, and would also lower demand and therefore the price that can be charged for fossil fuels. HSBC stated that the combined negative effect of these changes “would be equivalent to 40–60% of the market capitalisation of affected companies.”¹⁵ The report continues: “we believe that investors have yet to price in such a risk, perhaps because it seems so long term.”¹⁶

So what are we to make of this? The options are either that the market believes the chances of warming being limited to 2°C are close to non-existent, or that the market has gone off-piste. A balanced view suggests the answer lies somewhere between the

two. At the most recent COP19 meeting of the United Nations Framework Convention on Climate Change, little progress was made, and the executive secretary, Christiana Figueres, conceded that the outcome “does not put us on track for a two degree world.”¹⁷ But it is also inconceivable that business as usual will be allowed to continue, and it may not be governmental action that will put a cap on the burning of fossil fuels, but the simple fact that renewable energy is fast becoming competitive with fossil fuels.

In Australia the purchase of household solar panels will pay for itself in generated electricity in as little as four years,¹⁸ after which energy generation is free. On a far humbler scale, at village level throughout parts of East Africa, a popular and concrete step towards poverty reduction is the sale of small solar panels to families to power lights and mobile phones. The price of the units, which is paid over a matter of months, is less than the equivalent cost of kerosene, the fossil fuel source of light that has been used for decades at great monetary and human cost.¹⁹

Over the past decade much of the developing world has rapidly obtained access to telecommunications through mobile phones, without going through the expensive and capital-intensive step of a large-scale landline copper network. Access to energy is increasingly spreading in the same way, with small-scale local grids being incrementally rolled out instead of the heavy networks that brought electricity to the global north last century. Equally, in the advanced and heavily industrialised economy of Germany the ambitious *Energiewende* policy is seeking to cut emissions by 40 per cent from 1990 levels by 2020, while incrementally removing nuclear energy from the mix. Renewable energy uptake is being driven by small-scale and often community-owned plants, which are growing faster than the country’s big four generators.²⁰

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There are many sources of heartbreak along the path of climate change. There is the fact that while it will affect nearly everyone

on the globe, it is those in the poorest regions who will suffer most, from increased hurricanes and cyclones in coastal areas, longer monsoons, and the growth of tropical and especially mosquito-borne diseases that these changes will bring. There is the fact that dry areas of the globe will become drier, in the process making tens of millions of people vulnerable in sub-Saharan and East Africa alone. There is the fact that within developed countries like Australia, the costs of adapting to climate change will be harder to meet for those from lower socioeconomic backgrounds. And there is the fact that future generations will bear the costs of current generations' failures.

It could be of some comfort if the economic system and the stories that the developed world has told itself held some weight. If by accepting the criticism of the *Stern Review's* call for urgent action we would in fact leave later generations better-off after the magic of economic growth. If heavy support for fossil fuel exploration and development now was going to repay handsomely in the future. If the only path to development for the global south is the one already trampled by the global north. But as we have seen, none of this is true.

The fossil fuel executives, bankers and free marketeers who got the globe into this mess won't be the ones who will pay. As we heard during the time of the Deepwater Horizon oil spill, the people who stood to lose from BP's being properly held to account were eighteen million Britons. Australians face the same problem: compulsory superannuation has seen the growth of a capital pool of \$1.7 trillion, a disturbingly high amount of it invested in the fossil-laden Australian stock exchange.

The problem with the lessons of neoliberal economics is that its brand of capitalism simply cannot work for everyone. It relies too heavily on the ability to externalise costs – to poison the Gulf of Mexico then settle in for a cup of tea in Kensington. But there is nowhere for anyone to hide from climate change, and as we are forced to shelter from its increasingly severe and frequent effects,

counting piles of money is one distraction we won't be able to rely on.

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Endnotes

1. Becky Barrow and Karl West, "City Chiefs Slam Obama for BP Prejudice," *This Is Money*, 11 June 2010, accessed at <http://www.thisismoney.co.uk/money/news/article-1695789/City-chiefs-slam-Obama-for-BP-prejudice.html>.
2. Patrick Wintour, Terry Macalister and Giles Tremlett, "BP Oil Spill: David Cameron Caught between Tory Right and Obama," *The Guardian*, 12 June 2010, accessed at <http://www.theguardian.com/environment/2010/jun/11/bp-oil-spill-cameron-obama>.
3. "Time for Mr Cameron to Speak Up for BP," *Daily Mail*, 11 June 2010, accessed at <http://www.dailymail.co.uk/debate/article-1285749/GULF-OIL-SPILL-Time-David-Cameron-speak-BP.html>.
4. Richard Heede, "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010," *Climatic Change*, 2014: vol. 122, issue 1–2, pp 229–41.
5. Margaret Thatcher, "Speech to Conservative Party Conference," accessed at <http://www.margaretthatcher.org/document/106941>.
6. See for example the \$51.4 billion price tag in Oxford Economics, *Valuing the Effects of Great Barrier Reef Bleaching*, Great Barrier Reef Foundation, Newstead, 2009.
7. Simon Cox and Richard Vadon, "Running the Rule over Stern's Numbers," BBC, 26 January 2007, accessed at <http://news.bbc.co.uk/1/hi/sci/tech/6295021.stm>.
8. Nicholas Stern, "Chapter 1: Findings of the Stern Review on the Economics of Climate Change," *Yale Symposium on the Stern Review*, February 2007, p 17, accessed at <http://www.ycsg.yale.edu/climate/forms/FullText.pdf>.

9. William Nordhaus, "Chapter 5," *Yale Symposium on the Stern Review*, February 2007, p 23, accessed at <http://www.ycsg.yale.edu/climate/forms/FullText.pdf>.
10. Martin L. Weitzman, "A Review of the *Stern Review on the Economics of Climate Change*," *Journal of Economic Literature*, September 2007: vol. XLV, p 704.
11. United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on Its Fifteenth Session, Held in Copenhagen from 7 to 19 December 2009*, Decision 2/CP.15, Copenhagen Accord, 18 December 2009, recital 1, p5, accessed at <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>.
12. International Energy Agency, *Redrawing the Energy-Climate Map, World Energy Outlook Special Report*, 10 June 2013, p 17. This "budget" lies at the upper end of the range identified by the Intergovernmental Panel on Climate Change when addressing the same question.
13. International Energy Agency, *Redrawing the Energy-Climate Map, World Energy Outlook Special Report*, 10 June 2013, pp 98–9.
14. Carbon Tracker Initiative and Grantham Research Institute on Climate Change and the Environment, London School of Economics, *Unburnable Carbon 2013: Wasted Capital and Stranded Assets*, p 4.
15. HSBC Global Research, *Oil & Carbon Revisited*, 25 January 2013, p 4.
16. HSBC Global Research, *Oil & Carbon Revisited*, 25 January 2013, p 4.
17. Graham Readfearn, "How Rich Countries Dodged the Climate Change Blame Game in Warsaw," *The Guardian*, 25 November 2013, accessed at <http://www.theguardian.com/environment/planet-oz/2013/nov/25/climate-change-warsaw-rich-countries-blame-paris-deal>.
18. Choice Australia, Australian Technology Association, "Solar Panel Payback Times," as updated 18 June 2013, accessed at <http://www.choice.com.au/reviews-and-tests/household/energy-and-water/solar/solar-payback-times/page/payback-times.aspx>.
19. See for example the "Solar for 1200 Families in Copperbelt," Zambia project of SunFunder, described at <http://sunfunder.com/projects/view/32>.
20. "Energiewende: Germany's Energy Transformation," *The Economist*, 28 July 2012, accessed at <http://www.economist.com/node/21559667>.

CHAPTER 4

Global warming: we cannot afford to fail

Dora Marinova and Peter Boyer

Creating dichotomies and putting things into boxes comes naturally to human beings. If we aren't doing it with real objects we're applying it to people and their ideas, aspirations and activities. It is a kind of ordering process familiar to philosophers, historians, sociologists, psychologists and other scientists – all those who have studied the human condition down the ages. Without it we would not have been able to form a picture of what and where we have been and what we are today.

The boxes into which we placed human identities and activities of the twentieth century are familiar to all whose lives and thinking were formed in that century. We had communists and capitalists, constitutionalists and anarchists, law-makers and law-breakers. There were the opposing Allied and Axis powers, the socialist East and the corporatist West, the rich North and the poor South. Everything was manageable because everything had a label, a place. Most importantly, for all these things there was a defined boundary; we knew where one ended and another began.

Then, towards the end of the century, the boundaries began to blur, and the boxes lost their shape. The collapse of the Soviet

Union broke down one central divide of the twentieth century, between communism and capitalism. Accompanying it was the rise of the global economy, in which transnational corporations were able to secure unprecedented economic power and political influence, such that even governments of developed countries found themselves forced into subordinate bargaining positions against these corporate giants.

There was, however, one boundary that remained obstinately in place: the boundary between rich and poor. After the security blanket of Soviet socialism (such as it was) vanished overnight and the power of the large multinational corporations went increasingly unchecked by representative governments, the gap between rich and poor people, both between nations and within them, grew steadily wider. The trend continued into the present century, and persists today.

At the same time something new appeared on the scene that didn't fit any of the boxes or labels. Global climate change had no defined boundary within the planetary system we call Earth; indeed, the only defined boundary was the planet itself. The world that celebrated the fall of socialism and the end of the Cold War found itself confronting a whole new threat, made much worse by growing economic inequity. It quickly became clear that those people and nations that would suffer most as a result of changing climate were the world's poorest, those that could least afford to mitigate its impacts.

The predominant instinct of people when confronted with a new kind of problem whose causes seem counterintuitive is to deny the nature of the problem, or even its existence. Even scientists had difficulty with global warming. They had calculated that humans could affect the planet's climate since the late nineteenth century, but it took another sixty years for physicists to finally identify the process by which this could happen. More decades passed before climate scientists and weather observers finally convinced the broader scientific community that

greenhouse warming caused by human carbon emissions had actually started.

In the quarter of a century that has passed since then, scientists have confirmed a strong global warming trend over the past century for which they can find no precedent in instrument and proxy temperature records going back thousands of years; and they have identified with greater than 95 per cent certainty that human activities, mainly the burning of coal, oil and natural gas, are responsible for this warming. They have identified the ways in which human health and wellbeing, and civil society around the world will be damaged by unconstrained warming, and the things that we need to do to mitigate this damage.

We know what needs to be done. All we now have to do is implement these actions.

It is not so simple, however. For one thing, obstacles to progress are embedded deep within our human psyche. The English environmental thinker George Marshall noted the counterintuitive nature of climate science in terms of a failure of what he calls a “risk thermostat.”¹ We readily respond to threat when it is visible and immediate, has happened before, has an obvious cause, is coming from outside, and will directly affect us. Climate change, as Marshall points out, is none of these: it’s invisible, unprecedented and drawn out; its causes are complex, we are all contributing to it, and it has indirect impacts. So the risk thermostat doesn’t readily kick in.

A Norwegian study cited by Marshall found that denial of global warming was socially organised. To quote the report, denial “took place in response to social circumstances and was carried out through a process of social interaction.” In other words, people tacitly agreed to exclude climate change from their unwritten list of acceptable conversation topics. If certain annoying people are foolish enough at a dinner party to raise the topic of, say, the effect of air travel on the carbon budget, the reaction is invariably silence followed by a change of topic. So knowing or

not knowing emerged as “a political act” in which people used a series of interpretive narratives to deflect disturbing information and normalise a particular version of reality. We enter into social compacts, unwritten agreements about what we can publicly acknowledge and talk about.

Our beliefs are not founded on rational thought, but are socially constructed from components that are not necessarily rational. A 2001 Swiss study found nine different strategies used to deny climate change: displaced commitment (I protect the environment in other ways); condemning the accuser (You have no right to challenge me); denying responsibility (I’m not the main cause of this problem); rejecting blame (I have done nothing wrong); ignorance (I didn’t know); powerlessness (I can’t make any difference); fabricated constraints (There are too many impediments); cynicism (Society is corrupt); and comfort (It’s too difficult to change my behaviour).²

These storylines are repeated by others to become consolidated in social norms. Much stronger than rationality in shaping these norms is what our peers believe, so the big climate challenges must deal not with the content of messages but with the shaping of peer beliefs.

We choose to distance ourselves from the issue of climate change. Because it’s so commonly couched as a global problem, we’re able to exclude it from issues close to us, such as our rates, or the neighbour’s dog, or the state of the roads. Because it’s perceived as a slowly developing problem, we choose to put it out of our minds since it’s not going to affect us, only our children or grandchildren. Because it’s seen as a discrete public issue, we choose to compartmentalise it, so that while passionately advocating action on emissions, we take regular flying holidays. Vested interests, such as those of the livestock and pharmaceutical industries, are controlling the dissemination of crucial information that could improve the health of both people and the planet, and we continue to consume amounts of meat way

beyond the medically recommended levels.³ Encouraged by government and business to take small personal actions, we succumb to token offsetting behaviour (“I have a strict switching-off regime at home so therefore I can take that overseas holiday with a clear conscience”).

Alternatively we can succumb to cynicism: “The world is going to end; we must enjoy it while we can.” This latter trend is emerging quite strongly among young, affluent consumers who, while understanding the veracity of the science, enjoy their lifestyle too much to want it to be compromised in any way. Such cynicism can give rise to all sorts of seriously problematic behaviour, posing a still-small but growing threat to our social fabric.

Powerful campaigns against climate action have revealed governments’ vulnerability in addressing climate change. Governments are a product of history and their people, but they are failing in the face of this challenge. This is partly because inefficiency – a necessary part of democracy and good government – is built into the system. The principal cause of the repeated setbacks, however, is the fact that the evidence for human-induced warming is highly susceptible to misinterpretation, so that people everywhere have been having difficulty working out what’s true and what isn’t.

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We are in great need of scholarship that recognises and articulates the new paradigm of human-induced climate change, and that analyses the underlying social, economic and political forces shaping our modern world and presenting obstacles to the shifts necessary to address this huge challenge effectively. Such a paradigm shift is offered in a powerful new analysis by Dr Delys Weston, whose book *The Political Economy of Global Warming: The Terminal Crisis* was published by Routledge in 2014 after her untimely death in December 2012.

If there was a thread that tied together Del Weston’s eventful life – a constant, underlying characteristic in her words and

deeds – it was a passionate and unyielding commitment to social justice and equity. This was no intellectual construct, as it is sometimes observed in people; nor was it something to be kept to one side, to be taken up on odd occasions when disaster strikes. It lay at the core of Weston's being, a primary determinant of her thinking, her writing and her personal life. It was expressed not as a negative emotion but as an affirmation of all that is good in the human condition.

In a world where the preoccupation with economic growth, job creation, interest rates and national deficits seems to set the political and social agenda, Weston dreamed of community gardens and producers coming together to secure the most essential human right to food. In fact, she established a community garden in East Fremantle, Western Australia and then moved to Tasmania where she started to grow her own food.

Everybody who was fortunate to meet Del Weston or have her friendship keeps memories of a true and compassionate soul. Her presence evoked the gentleness and strength of an inspirational leader. She was a passionate scholar, an advocate for justice with a strong value-committed position, and a practical contributor to change on the ground – rare characteristics in today's world.

All these qualities manifested themselves in Weston's passion for South Africa and the African continent, considered to be the cradle of human life on Earth and now subjugated by colonialism, imperialism and ecological debt. Her book is an outstanding political economy analysis which offers remarkable insights into a country and continent where global warming is expected to cause 500 times greater loss to healthy life years than in Europe.⁴ South Africa's poorest people are already the first- and worst-affected by climate change and its manifestations, such as droughts, heat-waves, floods, storms and other extreme weather events.

The adverse impacts of global warming will continue to threaten food security and poverty reduction on the African continent, where global climate change's worst effects will be felt by

people least responsible for it and least empowered to deal with these effects. Using Marxist analysis Weston insightfully placed the discussion about the causes and consequences of climate and environmental change firmly within a transnational and global context concerning both Earth's peoples and Earth itself – the colliding worlds of, on the one hand, political and economic power and, on the other, truth and justice.

Although Weston was not pursuing an academic career, her PhD studies and book were a work of love, a personal commitment. They were underpinned by her strong sense of justice and desire to expose the truth about the forces at play in today's capitalist world, in order to justify the need for effective action. The science of climate change is still being disputed in Australia and other countries with a long history of exploiting fossil carbon to their advantage, simply because people and organisations do not easily relinquish power, even when it is known that not doing so will bring truly dire consequences. Weston warned that climate change could become a new source of profits through the financialisation of carbon and the opening of the road to ecological imperialism. To counteract this scenario, she looked for wisdom and encouragement from the epistemologies, worldviews and values of Indigenous cultures that see nature as precious and divine.

Faced with the two options of ecological destruction or systemic transformative change, Weston gave us what she called a "constitution" for a future society, around the principles of: metabolic restoration of the environment; re-establishment of the commons, including clean air, water, sea, rivers, forests and land; food security for all people; a community of producers instead of a capitalist mode of production; contracted no-growth economies; equity and redistribution of the ecological debt; and participatory democracy as a form of governance where ordinary people have the right to direct input into any decision-making.

Noel Nannup, the eloquent champion of Australia's original peoples, wrote in the foreword for Weston's book to never

underestimate the power of the spirit. We can achieve remarkable things when the challenge facing us becomes clear to all, when people everywhere see what science has been saying: that today's greenhouse threat exceeds anything we know from geological time, that our present emissions trajectory amounts to a global emergency dwarfing our financial difficulties, and that our only recourse is to act as one.

There is no other way for that to happen but to keep the discourse flowing whatever the reaction; to speak out for science against those who would have it trashed; to engage with others to take up the fight for a better, more resilient and, above all, more equal civil society; and never to give up.

There is one dichotomy that humans cannot escape – that of life and death. Despite the death of each individual being unavoidable, we grieve when it happens, irrespective of the circumstances. The existential threats posed by global warming to life on Earth, however, are not part of any intellectual exercise of ordering, putting things into boxes or explaining human reality. They are real physical consequences of the political economy of capitalism, which allows unchecked consumerism, an excess of power and wealth, deep social inequalities, and a metabolic rift between humans and the natural world. These are the symptoms of the terminal crisis of a system that favours the selected few and disregards the basic needs of, as Weston wrote, the “billions of current and future generations of people who share a finite planet, enveloped and interconnected through a thin layer of fragile biosphere – our global commons.”⁵

Del Weston left us to continue the challenging task of restoring the metabolic function of the natural environment and healing the natural and human world. Her passion and strong belief in equity and the power of community to create new political, resilient, diverse and sustainable societies are an inspirational gift to us, radiating hope and optimism for a better, just reality for all species on Earth. “We cannot afford not to try, nor to fail.”⁶

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Endnotes

1. G. Marshall, *Carbon Detox: Your Step-by-Step Guide to Getting Real about Climate Change*, Octopus Publishing, London, 2007.
2. S. Stoll-Kleemann, T. O'Riordan, C.C. Jaeger, "The Psychology of Denial Concerning Climate Mitigation Measures: Evidence from Swiss Focus Groups," *Global Environmental Change*, 2001: vol. 11, pp 107–17.
3. T. Raphaely, D. Marinova, "Flexitarianism: A More Moral Dietary Option," *International Journal of Sustainable Society*, 2014: vol. 6, issue 1/2, pp 189–211.
4. A. Costello et al, "Managing the Health Effects of Climate Change," *The Lancet*, 2009: vol. 373, pp 1693–733.
5. Del Weston, *The Political Economy of Global Warming: The Terminal Crisis*, Routledge, London and New York, 2014, p 197.
6. Del Weston, *The Political Economy of Global Warming: The Terminal Crisis*, Routledge, London and New York, 2014, p 197.

CHAPTER 5

It's the ethics, stupid! Why climate action needs a new moral basis

Fergus Green

On Wednesday 13 November 2013, newly elected Australian prime minister Tony Abbott strode into the House of Representatives and proclaimed, with more than a little *schadenfreude*, the death of Australia's "toxic tax." He was referring, of course, to the bill being introduced by his government to repeal the carbon pricing scheme – a signature achievement of the Gillard Labor government, which has been operating since 1 July 2012. Abbott's parliamentary proclamation set the wheels in motion for the forty-fourth parliament to kill off a law whose six-year conception, birth and life has been so politically destructive that it has laid waste to two prime ministers (one of them, twice) and one opposition leader.¹

The idea of pricing carbon wasn't always so unpopular. Kevin Rudd the first was elected, in part, on a wave of popular enthusiasm for action on global warming. "Climate change," he infamously stated, was "the greatest moral challenge of our generation." And the people seemed to stir. The idea that one of the

world's richest, most emissions-intensive countries should, in an age of climate risk, use the power of the market to curb its ever-growing greenhouse gas emissions seemed like a reasonable one. Internationally, Australia was lauded for its market-oriented climate leadership.

So what happened? How did such an apparently exemplary reform become such a liability in such a short time?

A conventional account of the rise and fall of Australian carbon policy points to economic conditions: the 2008 global financial crisis refocused the public's attention on more immediate, material concerns and undermined support for such "environmental" taxation. To borrow Bill Clinton's famous quip, it is, on this logic, "the economy, stupid."

Other accounts focus on the politics. The spectacular failure of the Copenhagen climate conference in 2009 left many Australians questioning why they should pay to cut emissions when they perceived (rightly or wrongly) that other countries were not. The Rudd cabinet's post-Copenhagen decision to dump the carbon scheme, the subsequent internal party fallout, the deposing of Rudd himself, the making and breaking of Julia Gillard's "no carbon tax" promise, and Tony Abbott's virulent opposition also, on this account, explain the emergent hostility. "It's the politics, stupid."

Undoubtedly, the political explanation gets us closer to the mark. But it raises deeper questions: why did Kevin Rudd hitch his climate action wagon to Copenhagen? There was a well-documented risk that the Copenhagen negotiations would fail to meet expectations, and it was obvious that domestic opposition to carbon trading would be considerable in Australia's fossil-fuelled political economy. Why did he opt for an emissions trading scheme in the first place? Was there a better way?

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Australia's carbon woes are a microcosm of a deeper problem with the mainstream intellectual framework – or "paradigm" –

that has dominated the policy response to climate change for two decades. That paradigm is characterised by a belief that the best response to climate change involves the agreement, by all of the world's 195-odd nations, of a "legally binding" treaty that specifies a long-term, collective emissions reduction goal and mandates emissions reduction targets for each country that "add up" to that goal, underpinned by an international market for trading emissions allowances (enabling emissions to be cut at the lowest possible total cost). I have called this paradigm "Treaties, Targets and Trading," or TTT.

At the heart of TTT lie two assumptions about ethics. The first is a methodological assumption about the way that real-world actions should relate to ideal ethical goals. TTT assumes that ethics should proceed by first working out what the ideal *goal* should be, then determining the ideal *means* – the principles, institutions and policies – for reaching that goal. The real-world actions that should be taken, on this view, are the ideal ones. Call this the *ideal-maximal* approach to practical ethics.

The second assumption concerns the moral values that should inform what those ideal ends and means should be, namely international justice and, most relevantly for this essay, *liberal welfarism*. Under TTT, international justice arises in the context of distributing global emissions allowances among nations. The general position is that developed countries have greater, and more urgent, obligations to reduce emissions than developing ones. Welfarism is a theory of moral value according to which there is only one irreducible moral good in the world, namely the welfare of individual persons. Welfare, in this context, is typically defined as the satisfaction of a person's subjective preferences. In other words, we can measure what is ultimately good in the world by the extent to which the preferences people happen to have are satisfied. What makes this theory of value a liberal one is the connotation that policy-makers should not seek to influence people's preferences. Liberal welfarism, as we

shall see, informs the TTT paradigm of climate policy in multiple ways, but is especially relevant to the “trading” component.

These twin ethical assumptions are, I shall argue, deeply flawed. It is these flaws that provide a third, deeper explanation of why the policy prescriptions of TTT have failed at the international level and in countries like Australia.

Kevin Rudd was right about climate change being the greatest moral challenge of our generation. But the moral response he prescribed was sorely defective.

It’s the ethics, stupid.

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The ideal-maximal approach to practical ethics has a long pedigree – spanning Kant, Bentham and, in more recent times, Rawls and his intellectual disciples. It requires us to reflect on what we ought to do in a perfect world and, in particular, on the political institutions and relations that would constitute such a world. It has much less to say about what we should do *now* to achieve such a world. Rawls, for example, devotes only a few pages of his most celebrated work, *A Theory of Justice*, to the latter question, which is the subject of what he calls “non-ideal theory.” Many philosophers are trying to plug this gap, both at the theoretical level and in the application of philosophy to a wide range of practical issues.

Ethicists who study climate change, however, have had relatively little to say about non-ideal theory. Thousands of pages of academic articles have been written about the moral principles that should govern the distribution of global emissions allowances, and about the theoretical virtues of emissions trading. But few have considered whether these elegant ideals provide appropriate guidance to the mere mortals who inhabit the messy, complex and thoroughly non-ideal real world.

This is striking because, in the absence of a global “central planner,” or “sovereign,” TTT seems totally implausible. Using emissions trading to achieve a set of emissions reduction targets

that are ethically distributed and that “add up” to a 2°C temperature goal would, surely, only be achievable if citizens, policy-makers and companies everywhere were disposed to act cooperatively in the long-term, global public interest. For this to occur, economic prosperity would surely need to be more evenly spread, and political-economic power structures radically more equal, so that powerful vested interests could not overwhelm policy-making and public opinion. Manifestly, these conditions do not prevail today.

Proponents of TTT, aware of this inconvenient truth, nonetheless insist that the best approach is to just push through; to try to *approximate* the ideal prescriptions as best as can be done in real-world circumstances. Find yourself with a global collective action problem? *Negotiate a comprehensive treaty that deals with all aspects of climate change, in one go, as best you can!* Need to divide the load among countries? *Negotiate targets as closely as possible in accordance with principles of international justice!* Want to reduce your domestic emissions? *Run that “textbook” emissions trading scheme through the gauntlet of vested interests and implement whatever comes out the other end!*

This approach is flawed in theory and has been disastrous in practice. Theoretically, it violates Lipsey and Lancaster’s “General Theory of Second Best”: when any one condition necessary for an ideal solution does not hold, it cannot be assumed that the second-best solution involves the closest possible approximation of the ideal solution.² To illustrate, consider a different example. One might hold to the cosmopolitan liberal principle that, in an ideal world, there would be no national borders regulating freedom of movement. But it would be unwise for a cosmopolitan-minded government to try to abolish all its immigration controls tomorrow. Given public attitudes to immigration in most countries today, the social backlash would be overwhelming and the government would probably be turfed out. It would probably *set back* the migration liberalisation agenda many years, or at the very least fail to advance it in the most effective way.

As a methodology for addressing complex moral problems, unleashing TTT onto an unprepared world is the climate change equivalent of opening the borders tomorrow.

Let us look more closely at how things panned out in practice.

The Kyoto Protocol, agreed after tortuous negotiations in 1997, committed developed and post-Soviet countries to reducing their emissions, on average, by 5 per cent below 1990 levels by the end of 2012. The government officials who negotiated the Protocol were then, as now, concerned largely to promote their respective nations' short-term economic growth and industrial competitiveness, while *appearing* to be part of a global climate solution. Accordingly, each developed country negotiated emissions targets, baseline years, accounting rules and measurement assumptions that were highly favourable to its own interests. Since the Protocol did not require the targets to be met until far into the future (the end of 2012), governments knew they would not be held accountable for their decisions.

On paper, emissions among the countries with quantified targets ended up, as a whole, lower than the targeted reductions. But scratch beneath the surface and the picture that emerges is more disturbing. The emissions reductions were measured relative to emissions in 1990. This "base year" was chosen deliberately so that the emissions reduction task would be extremely easy. The post-1990 collapse of communism in the former Soviet countries resulted in a precipitous decline in industrial output, and hence greenhouse gas emissions, ensuring that these "economies in transition" met their targets easily and had vast surpluses of emissions allowances that they could sell, via the international emissions trading mechanism contained in the Protocol, to developed countries that fell short of their targets. (These allowances are often referred to as "hot air" because they do not represent genuine, policy-induced emissions reductions.)

Developed countries also had an easy ride. Australia was able to negotiate a clever carbon accounting loophole that allowed it

to meet its target (of an 8 per cent *increase* on its 1990 level emissions) by implementing policies to reduce deforestation, despite its energy emissions growing more than 45 per cent since 1990. Japan struggled to meet its Kyoto target and so relied on international purchases of hot-air credits to offset the shortfall, and now projects that its emissions will *grow* by 3.3 per cent above 1990 levels by 2020. Canada, whose emissions were, at the end of 2011, more than 18 per cent higher than 1990 levels and still growing, flagrantly ignored its obligations under the Protocol and opted out altogether in 2011. The United States, having been instrumental in weakening the content of the Protocol during the negotiations, never ratified it at all. The European Union at least implemented an emissions trading scheme and other mitigation policies, which had a modest impact on EU emissions, though its efforts to reduce emissions were helped along considerably by the post-1990 restructuring of its eastern member states, and by the global financial crisis and subsequent recession in the eurozone.

Over the same period, massive growth in the emissions of major developing countries like China and India has pushed global greenhouse gas emissions up 50 per cent since 1990 (these countries did not have Kyoto targets, consistent with the principle of international justice, reflected in the Protocol, by which developed countries have greater responsibilities to reduce emissions).

The failure of leadership by developed countries, evidenced in the outcomes of Kyoto, has led to a high-stakes game of “chicken” in the current negotiations on a successor treaty. The developing countries insist the rich world still needs to fulfil the spirit of its Kyoto commitments and lead with deeper emissions cuts. Meanwhile, developed countries are reluctant to commit to further cuts without reciprocal cuts by the emerging giants – particularly China and India – who will produce the lion’s share of future emissions. As it stands, a number of countries have made some pledges to reduce emissions, but most of these are unambitious, highly conditional and not implemented through domestic

legislation. Collectively, they come nowhere near to “adding up” to an ethically defensible emissions trajectory, especially when lax accounting assumptions and loopholes are factored in.

A similar ill fate has befallen the few emissions trading schemes that countries have tried to implement. The Kyoto Protocol’s Clean Development Mechanism – which allowed developed countries to gain credits towards their Kyoto targets by investing in emissions reduction projects in developing countries without their own targets – has been racked by successive scandals, widely “gamed,” and deservedly criticised for weakening the pressure on developed countries to reduce their own emissions. All three phases of the European Union’s scheme have suffered from major design flaws, resulting in volatile, and now farcically low, carbon prices, which make no meaningful impact on business decisions to cut emissions. The likely-soon-to-be-repealed Australian carbon pricing scheme is riddled with loopholes, carve-outs and design flaws that will prevent it from making much of an impact on the grossly emissions-intensive structure of Australia’s economy for the foreseeable future.

Meanwhile, the exclusive focus on the domestically produced emissions under Australia’s scheme has given successive Australian governments a pretext to ignore the biggest loophole of all: our fossil fuel exports. Already, twice as much carbon dioxide is released from the burning of the coal and gas Australia exports as from the fossil fuels we burn at home. At a time of rapidly accelerating climate change, coal and gas companies are progressing new mines, wells, railways, pipes and ports that, when fully operational, would more than double Australia’s exported emissions by 2030.

Successive Australian governments have relied on the UN climate accounting framework – which requires countries only to count the emissions released within their borders – to wash their hands of moral and legal responsibility for the climate impacts of this reckless fossil fuel expansionism. In the ideal world of TTT, we *could* export these fuels in the knowledge that the importing

countries were burning them within safe, binding emissions limits. But in the real world, where no such limits exist, coal and gas companies and their servants in government are making hay, while global emissions soar.

In the face of this shameful reality, the advocates of TTT have been left flat-footed. Many hope that these new fossil fuel assets will be “stranded” when the countries that currently import our coal decide to cut their fossil fuel imports for climate change or other reasons. While this is certainly a risk to which Australian policy-makers should be much more sensitive, there is little in the way of policy response that TTT-advocates can offer beyond a reaffirmation of the need for more and better TTT.

There remains, in the worldview of TTT proponents, a Clive-Palmer-and-Gina-Rinehart-sized blindspot.

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The second fundamental reason for the failure of TTT is that its liberal-welfarist foundations, most applicable to the emissions “trading” element of the paradigm, are too weak to support the weight of the task of decarbonising the global economy.

A prominent criticism levelled at emissions trading is that it fails to express society’s moral disapproval of greenhouse gas pollution. For example, the philosopher Michael Sandel argues that when the state attaches a ban or a fine or a penalty to an activity, it registers society’s moral disapproval; but when the state distributes tradeable permits to pollute, it effectively condones the activity. Sandel’s insight is an important one, but the connection between moral judgement and emissions trading is arguably slightly more nuanced than this. Because emissions trading schemes place a cap on pollution, which limits the availability of emissions permits, they do imply a moral judgement by society about the undesirability of greenhouse gas emissions. The problem, as I see it, is rather that this moral judgement is divorced from the moral character of the person, or the underlying activity, that produces those emissions.

To explain this a little further, it is helpful to understand that the vision of a good society implicit in liberal-welfarist climate policy is a *maximally efficient* one; one in which the “economic pie” – the economy’s capacity to satisfy people’s subjective preferences, as measured by their “willingness to pay” for the things they prefer – is maximised. Emissions trading schemes maximise the economic pie by eliminating emissions in order of lowest to highest abatement cost: through trade in permits, those with the highest willingness to pay to pollute will get the permits, while others who are less willing to pay can sell their permits and use the money to satisfy their other preferences.

The problem is that the narrow focus on efficiency starves proponents of emissions trading of the conceptual resources needed to criticise, on moral grounds, particular activities that cause greenhouse gas emissions, or particular people who carry out those activities. For if one thinks that the satisfaction of preferences is all that matters, morally speaking, then one can have no moral ground for criticising those preferences. On liberal-welfarist logic, the tonne of carbon dioxide released from the billionaire’s private jet is deemed to be morally equivalent to the tonne emitted from the diesel power generator of a remote rural hospital. If the billionaire has a higher willingness to pay for the privilege, he gets to keep emitting longer than the hospital does. Of course, the hospital might be able to sell its emissions permit to the billionaire, and that transaction may benefit the hospital. But the point is that the legal mechanism society has adopted for responding to climate change has, in this case, ended up legitimising and prolonging behaviour that reveals a contemptuous attitude towards one’s fellow citizens and the natural world.

While this example is, for pedagogical purposes, deliberately extreme, the problem it illustrates is not a hypothetical one: emissions trading schemes around the world have helped to strengthen and legitimise the people and corporations who most resist action on climate change. In the European Union,

carbon-trading watchdog Sandbag found that many heavily polluting power generation and industrial (iron and steel, and cement) companies held hundreds of millions of euros' worth of surplus allowances (emissions permits allocated to them for free but in excess of their emissions needs). The scheme thus strengthened the profitability of some of the most polluting industries who were at the same time attacking and lobbying against much-needed reforms to an already extremely weak scheme.

A similar dynamic is occurring in Australia. Accompanying the introduction of Australia's carbon pricing scheme, the Australian government lavished, on highly dubious grounds, \$5.5 billion in cash and free permits on the country's most highly polluting coal-fired power generators (to be paid between 2011 and 2017). Additionally, around fifty so-called "emissions-intensive trade-exposed industries" are receiving billions in free permits every year. In the scheme's first year of operation, 2012–13, more than one hundred million fixed-price units were allocated freely to these companies, at a total value of more than \$2.3 billion. Most of these companies lobbied heavily against the scheme and/or had a strong hand in weakening its provisions; and most are at no real risk of being placed at a competitive disadvantage against more carbon-intensive trade competitors.

But beyond these overt instances of "gaming" and "rent-seeking," emissions trading schemes tend to work a more insidious harm by depoliticising and legitimising the most morally dubious companies and their activities. Research published earlier this year in the peer-reviewed journal *Climatic Change* found that just ninety companies – all fossil fuel and cement producers – are responsible for nearly two-thirds of all global emissions since the beginning of the industrial age.³ Many of these companies – probably the vast majority of them – have fiercely resisted attempts to impose climate policies in the jurisdictions where they operate, and many have funded the climate change denial movement. Where emissions trading schemes have been introduced, these

companies have heavily influenced their design, with predictable results. And once a carbon behemoth is part of the resulting trading schemes, it is subject to the depoliticised, willingness-to-pay-based morality that treats it as just another legitimate market participant who buys and sells government-backed commodities within the constraints of an overall emissions cap.

Of course, no climate policy can avoid entangling the biggest emitters, or resist their power entirely. The point is that their power itself must also be challenged if climate policy is to have a hope of succeeding. Emissions trading, given its power-blind moral structure, cannot perform that task. It is a task, moreover, that, with so much attention being focused on constructing and improving emissions trading schemes, we have tended to forget.

We can thus see how liberal-welfarist values complement the ideal-maximal approach to ethics. Together, they form the power-blind moral foundations of TTT: if we lived in the ideal world where states could agree on, and enforce, a comprehensive regime of legally binding targets with a perfect global emissions trading scheme that reduced emissions to an ethically defensible level, then it might matter less that emissions trading schemes are silent on the moral character of different emitters. But in the real world of fossil fuel-funded climate change denialism, corruption, lobbying, misinformation and scare campaigns – the world where wealth, power and politics matter – these power-blind moral foundations are unfit for purpose. In *this* world, it is crucial that we retain the moral concepts and rhetoric we need to identify the enemies in our midst, to expose them, to delegitimise them and, ultimately, to conquer them.

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For this task, we need a new paradigm, based in a new ethic. This new ethic must comprise a plural set of values and must entail an alternative methodology for relating real-world means to the ideal ends of climate policy-making. We must build from these plural values a vision of the good society that encompasses, but

is not limited to, radical action on climate change, that inspires people to strive for it, and that provides us with the conceptual and rhetorical resources to criticise those who stand in its way.

Let us start with a new political goal: a world in which everyone has the means to live a flourishing life – a life, as Amartya Sen puts it, that they have reason to value – within sustainable limits. A truly flourishing life consists in a plurality of goods, some of which are material, and many of which are social. Humans are, after all, complex pluralists: we care about fairness and fraternity, duty and dignity, security and stewardship, health, knowledge, and social esteem, to name but a few, and these goods cannot simply be reduced to “welfare.” The purpose of politics should be to secure to people the means to live a flourishing life consisting of at least a core set of the most important goods. This is not a new ideal vision – the general approach has its roots in ancient Greece and it has numerous proponents in contemporary Anglo-American philosophy, most prominently Martha Nussbaum – but it is fundamentally different from the current mainstream of liberal welfarism. (I cannot hope to give a fully specified account of this ideal here, but it will suffice for present purposes.)

Within this pluralistic vision, we need a more concrete goal on climate change to give partial meaning to the notion of “sustainable limits.” This goal should not, as in TTT, prescribe our immediate efforts, but rather should guide and motivate those efforts. Thus, the methodology for relating real-world efforts to ethical ideals should not be a matter of specifying policies and institutions for an ideal world and trying to shoehorn the real world into them. Rather we should define a goal that is general enough to admit of many possible means to its achievement, letting us choose those likely to be most effective in the light of real-world conditions. Let us call this the *pragmatic-idealist* approach to ethics.

Fifty years ago, President John F. Kennedy, in a commencement address at the American University in Washington, DC, illustrated this method beautifully when he committed his nation

to the pursuit of peace through the elimination of nuclear weapons. “By defining our goal more clearly,” he said, “by making it seem more manageable and less remote, we can help all peoples to see it, to draw hope from it, and to move irresistibly toward it.”

Instructively, Kennedy realised that it would not be wise to try to reduce the world’s then 30,000-odd nuclear weapons in one fell swoop. His immediate focus was not on specifying the exact principles, institutions and policies by which the goal of eliminating nuclear weapons should be reached (there was never any suggestion of a nuclear weapons cap-and-trade scheme, for example). Rather, Kennedy realised that change would be non-linear, and would initially be incremental and slow. As such, near-term, pragmatic efforts to delegitimise nuclear weapons would be needed to change social norms, foster trust among the key players and build political momentum towards the ultimate goal. He chose, specifically, to begin this process with an exhortation to ban atmospheric nuclear tests and a unilateral declaration that the United States would not conduct any such tests in the future.

Applying this pragmatic idealism to climate change, we should adopt an aspirational goal of decarbonising the global economy by the middle of this century. That is, the nations of the world – and all its people and organisations – should aim to eliminate most anthropogenic greenhouse gas emissions from every emissions-intensive economic and social process (and offset the remainder through the expansion of carbon sinks such as forests). This goal is neither so easy as to be uninspiring, nor so implausible that no one would bother to attempt it. Like JFK’s long-term goal of nuclear disarmament, moreover, it is morally compelling, psychologically salient, unambiguous and inspirational.

And just as JFK narrowed his immediate focus to banning nuclear weapons tests, we should start by aiming to decarbonise the all-important energy sector, focusing predominantly on electricity generation and energy consumption in buildings, and secondarily on transport and industrial processes (though all should

be progressed simultaneously). Consistent with that intermediate goal, we must take urgent steps to accelerate the deployment of high-potential, clean energy technologies. But equally importantly, we must have a strategy to delegitimise fossil fuels, the companies that produce them, the billionaire barons who get rich from them, the governments that back them, and the social norms that facilitate their continued production and consumption. Beginning with coal – the most highly polluting fuel source – we must come to see fossil fuels as taboo, just as we came to see nuclear weapons, ozone-depleting chemicals and asbestos in this way.

Our moral imaginations freed from the idealised policy prescriptions of TTT and the bland reductionism of liberal-welfarist values, we can begin to see the manifold possibilities for advancing this delegitimation agenda.

Governments, for one, have a wide range of tools at their disposal. When big policy shifts – like Australia's carbon and mining taxes, or comprehensive international treaties – prove impossible because of the power of vested interests, governments can, and realistically must, take a multi-pronged approach. For example, they should force companies to disclose to the public their greenhouse gas emissions accounts, and to publish rigorous estimates of the full costs – particularly the health costs – of their activities; and they should force companies and financial institutions to disclose their investments in fossil fuel assets. Governments should remove the direct subsidies to fossil fuel and other emissions-intensive sectors, which amount to roughly US\$500 billion annually. And they should work with aligned groups within civil society to inform the public about the dangers of fossil fuels, through emotive and persuasive advertising of the kind that has been extremely successful in public health campaigns against smoking, drink-driving and asbestos. They can then build the political support for taxes, bans and eventually phase-outs of entire industries, and work with other countries to achieve the same outcome.

The politics of nuclear disarmament again provides an analogy of more appropriate scale. Interestingly, Australia has a rich tradition of precisely the kind of pragmatic idealism in the nuclear field that President Kennedy pioneered. Australia is a non-nuclear middle power with little direct impact on nuclear weapons stockpiles. Yet, through a series of well-timed and well-resourced small and medium actions – including the establishment of nuclear-free zones, bans on nuclear testing, and “shaping the debate” through the promotion of high-level research – successive Australian governments for the last three decades have done an enormous amount to change global nuclear norms in the interests of peace and security.

Sadly, on climate change, Australia’s two main political parties are not well-intentioned custodians of the public interest fighting courageously amid challenging circumstances. Far from being disposed to delegitimise fossil fuels, they are the industry’s biggest promoters, differing only in the hues of the green facades they use to mask this shameful reality.

In these circumstances, the action must come from below. Forward-thinking activists, businesspeople, researchers and local community groups must coalesce to change corporate and government behaviour and tip the balance away from fossil fuels. We must start by talking about fossil fuels as part of the problem, not the solution. To do this, we need to move beyond liberal welfarism and into a more “romantic” register that only a pluralist ethic permits – a rhetoric of bold visions (for the nation’s future), evocative storytelling (about the communities, places and livelihoods to be safeguarded and improved) and the “friend/enemy distinction” (shaming the enemies of sustainable prosperity, and championing its pioneers).

The savviest environmental activists and non-government organisations already get this. They have all but given up on the zombie-like UN negotiations, the idea that emissions trading is the best way to tackle climate change (at least in the near term),

the pretence that all emitters are morally equal, and the reductionism that treats climate change as morally isolated from other genuine social, economic and environmental concerns. They are, instead, doing their best to delegitimise fossil fuels and promote a clean energy revolution.

American environmentalist Bill McKibben has squarely identified oil, coal and gas companies as public enemy number one, and built a rapidly growing movement to pressure investors to take their funds out of those companies, starting with university endowments. Courageous activists are risking life, limb and extensive jail time in acts of civil disobedience to expose the outrageousness of Arctic oil drilling, rampant fracking for unconventional gas, and the bank-financing of mega-coalmines. Lock the Gate has mobilised local communities to fight coal-seam gas production in Queensland and New South Wales. Greenpeace, Friends of the Earth, the Sunrise Project and a platoon of local groups are highlighting the staggering climatic, environmental and community impacts of planned coal projects in those states. And groups like Beyond Zero Emissions and Repower Port Augusta are showing Australians what a zero-carbon economy can look like and why it would be so much better for their communities than a fossilised one.⁴

People, it turns out, respond in droves to these ideas, to the plural moral values that motivate them, and to the nation- and community-building visions that enrich them. Just look at the breadth and depth of the social movement that has mobilised against coal-seam gas in places like the Darling Downs. And consider the extraordinary level of support for the idea of building concentrating solar thermal power plants in Port Augusta: where else, in the fight for climate action, do you see local people, industry bodies, environmental groups, unions, local government, and even big energy companies all united behind a large-scale policy to finance revolutionary clean energy technology?

Indeed, it is *only* this localised “politics of place” that can engage and move people in the visceral way needed to enlist their support for deep change. And it is, as Ruth Davis of Greenpeace UK has argued, only through such a politics of place that we can ask ordinary people in countries like Australia and Britain to agitate on behalf of the overseas victims of fossil fuel projects and of climate change itself.⁵

This logic of popular, trans-community solidarity also implies a major shift in the ethics of distribution associated with climate change. We must move away from a preoccupation with international justice as it is understood in the TTT context – the fair “burden sharing” of emissions cuts per se between “developed” and “developing” countries – and towards a focus on the fair distribution of the costs and benefits of the global energy transition between the richest people and companies and everyone else. The global financial crisis and its aftermath have exposed the reality that the greatest divisions in global society are not between “developed countries” and “developing countries” but between the super-rich 1 per cent and the 99 per cent, most of whom struggle, to varying degrees, with low or declining real incomes and austerity-driven cuts in public services. The politics of decarbonisation must thus create the conditions for cross-border social movements – not just among the victims of climate change and fossil fuel rapaciousness, but among everyone on the poorer side of the canyon of inequality that divides the richest from the rest.

In practice, this means countries with strong incentives to innovate new technologies in particular sectors should cooperate with one another in proportion to their wealth and capabilities, and then spread the domestic costs progressively. This way, the countries with the most to gain from investing in new technologies and processes, and the wealthiest people within those countries, pay the most, while the benefits redound globally. Australia, for example, should cooperate more with other sunny countries to

deploy, using smart policies, concentrating solar thermal power plants. Such deployment, done first in sunny, developed countries, would inevitably lead to production cost reductions, which would pave the way for countries like India, South Africa and China to deploy these technologies at prices competitive with fossil fuels. (German subsidies for solar PV have led to a two-thirds decline in global PV prices in the past six years, benefiting people all over the world, not least the millions of Australians who added solar panels to their homes in the last four years.)

Such actions would remove the economic sting of “emissions reduction burdens” that understandably deters some developing countries from making big, early moves on clean technology (of course, some are moving already, anyway). They would also, moreover, help compensate for increased fossil fuel prices resulting from the phase-out of fossil fuels that is necessary for energy sector decarbonisation.

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The myopic mainstream focus on grand treaties, international emissions reduction targets and emissions trading schemes is neither a necessary nor a wise approach to tackling climate change. These measures have had some marginal positive effects, but it is time to face up to the real and opportunity costs that have been incurred in the attempt to graft these theoretically elegant, ideal solutions onto the messy, complex, unequal, non-ideal world in which we live. Paradoxically, TTT has *strengthened* the very non-ideal conditions – the fossil fuel-dominated corporate power structures, the political risk aversion, the public hostility towards climate action, and the weak levels of trust and confidence in international institutions – that need to change if any ideal climate goal is to be achieved. All the while, precious time has been lost.

In the transition to a zero-carbon future, we *will* need ethically significant, long-term goals to provide guidance and motivation for our present-day actions and policies. We *will*

need many forms of global cooperation to tackle climate change and other injustices fairly and effectively. And we *will* need some form of carbon pricing to incentivise structural change and the reallocation of private capital, and to raise government revenue for public investments in sustainable infrastructure and clean technology innovation.

But we will need a lot more than these things, and we will need a new moral framework within which to pursue them. By constructing powerful, pluralistic visions for the future of our nations and communities, by championing clean solutions that make hope for a shared future possible while delegitimising the fossilised forces that imperil that future, and by building cross-border social movements as the basis for wide and deep political coalitions, we can successfully agitate for a cornucopia of effective, pragmatic public policies and private actions that advance us towards the guiding moral ideal of a flourishing, fair, decarbonised world.

Author

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Endnotes

1. At the time of publication, the package of bills to repeal the carbon pricing scheme had been passed by the House of Representatives and rejected by the Senate.

IT'S THE ETHICS, STUPID!

2. R. G. Lipsey and Kelvin Lancaster, "The General Theory of Second Best," *The Review of Economic Studies*, 1956–57: vol. 24, issue 1, pp 11–32.
3. Richard Heede, "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010," *Climatic Change*, 2014: vol. 122, issue 1–2, pp 229–41.
4. The author was a volunteer for Beyond Zero Emissions in 2011–12.
5. Ruth Davis, "A Popular Environmentalism," *Soundings*, 2012: vol. 51, pp 23–32.



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