

MORALITY AND GLOBAL WARMING

A RESPONSE TO CARDINAL PELL

Geoff Lacey

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In October, Cardinal George Pell gave a lecture in Westminster Cathedral Hall, entitled *One Christian perspective on climate change*. A shorter version appeared in *The Australian* (27 October 2011). He said that a reason he was speaking out was to avoid having too many Christian leaders repeating the mistakes of the past and “to provide some balance to ecclesiastical offerings”.

In this talk, I address the question of how we develop an ethical response to the issue of climate change. In particular I will examine the science, the politics, the foundations of an ethical position, and what constitutes an adequate response. I will look at where Cardinal Pell stands on each of these matters.

The Science

The Inter-Governmental Panel on Climate Change (IPCC), involving over 800 climate scientists, has issued a number of major reports. These demonstrate that global warming is in fact occurring, and that there is a very high probability that it is at least partly caused by human-generated emissions of greenhouse gases.

Cardinal Pell says that what is important is “whether the evidence and explanations are adequate” to demonstrate climate change. On this point, I can only agree. However, along with a small group of scientists, he is sceptical about global warming. He observes:

“It is not generally realised that in 2001 at least one of the IPCC Third Assessment Report’s Working Groups agreed: ‘In climate research and modelling, we are dealing with a coupled, non-linear, chaotic system, and therefore the long-term prediction of future climate states is not possible.’”

In the same paragraph, the IPCC actually goes on to explain that what they expect to achieve is:

“The prediction of the probability distribution of the system's future possible states by the generation of ensembles of model solutions”.

Addressing adequately the statistical nature of climate is computationally intensive, but such statistical information is essential.

Climate scientists recognise that it is not possible to predict climate exactly, and so in their models they assess the probabilities of different outcomes. For example, they provide scenarios of global temperature rises corresponding to different carbon emission policies.

Cardinal Pell and the sceptical scientists he quotes greatly exaggerate the area of uncertainty. In fact, the greenhouse effect, in which carbon dioxide and other gases tend to warm the earth, is not in doubt but established science. And it is very hard to deny that global warming is occurring when we consider the melting of glaciers, the permafrost and the Greenland ice shelf, and the reduction of summer ice in the Arctic Ocean. What is in doubt is the **degree** of future warming, as estimated by the mathematical models.

A note on the word 'sceptic': I do not intend this word to have pejorative connotations, and I avoid the word 'denier' which Pell finds offensive. The term 'sceptic' is in common use in discussions about climate change, and I use it simply as shorthand for a complex of views.

I think that what is important about the IPCC is that theirs is the most comprehensive study of global warming. Their reports contain the best and most detailed information we have about the phenomenon and the best estimates we have at this stage as to the future trends. The publications of the various sceptical scientists hardly make a dint in the soundness of this work. None of them has produced a convincing critique - or anything like it - of their achievement.

Cardinal Pell elaborates on some of the points raised by the sceptics, while adding his own flavour. For example, he says that the influence of major volcanoes has been omitted from the climate models. He says that "uncertainties include sunspot activities and cloud formation, as well as deforestation, soil carbon and aerosols. We should also add variations of the earth's orbital parameters, asteroid and comet impacts, and variations in cosmic rays".

He is mistaken. Volcanoes and clouds are considered in the models. Asteroids and comets are pretty much irrelevant.

In considering the science, it is important to realise that global warming is not the only major environmental problem we face. The biosphere is under assault in other ways, too. These include the massive destruction of ecosystems that support abundant life, including rainforests and wetlands; and the impacts of resource extraction, such as the terrible oil spill in the Gulf of Mexico. All the issues are interrelated, and action on all of them is connected to action on global warming.

The politics

It would be a mistake to imagine that global warming scepticism is merely a matter of minority opinion, existing in a political vacuum. On the contrary, the rhetoric is very much connected with political agendas and strategies. Clive Hamilton, in his book, *Scorcher*, spells out some of the connections between the sceptics and the mining and energy industries.

A well-known example is the Lavoisier Group developed by Hugh Morgan, former CEO of Western Mining Corporation, and his associate Ray Evans. They made their position unmistakably clear when they wrote in 2000: "With the Kyoto Protocol, we face the most serious challenge to our sovereignty since the Japanese Fleet entered the Coral Sea on 3 May 1942". Conferences of the Group feature the various climate sceptics in Australia, thus helping to strengthen the formal and informal political network.

In his paper, Cardinal Pell quotes with approval a number of Australian scientists and activists who oppose action on global warming. At the same time, he opposes the position of scientists and others who are working to reduce carbon emissions. He also makes an unsubstantial attack on Al Gore's film, *An inconvenient truth*. He is therefore not just a person with an opinion, but a person engaged in a political campaign - a campaign against spending money on meeting the Kyoto Protocol. He has taken sides on one of the most important issues of our time.

Sometimes, the sceptics draw a thin line between their science and their political rhetoric. Sometimes, they use rather strange arguments in their efforts to convince. Cardinal Pell observes that "today's total CO₂ concentration represents less than one-twenty-fifth of one per cent". He also notes that "the atmospheric concentration of carbon dioxide is generally the same everywhere, but temperature changes are not the same everywhere". He even gives a footnote as a source to this piece of trivia. In fact, these observations are quite irrelevant to the issue - and to just about anything else.

He claims: "Animals would not notice a doubling of CO₂ and obviously plants would love it. In the other direction, humans would feel no adverse effects unless CO₂ concentration rose to at least 5000 ppm, or almost 13 times today's concentration, far beyond any likely future atmospheric levels".

13 times today's concentration! A truly breathtaking suggestion.

In a brief theological comment on global warming, the Cardinal refers to the biblical story of the Tower of Babel. He says that the metaphor of the tower could be seen as "a presumptuous attempt to control or appropriate the divine", and that we "should ask whether our attempts at global climate control are within human capacity ... Have scientists been co-opted onto a bigger, better advertised, and more expensive bandwagon than the millennium bug fiasco?"

While his language is not completely clear, it appears that he considers it is not the big polluters who are tending to control climate, but rather that it is the scientists of the IPCC.

Developing an ethical position

Let us consider now how we may develop an ethical position on the issue of global warming. This should start off with further reflection on the science.

As I have already indicated, evidence is overwhelming that global warming is occurring, but there are necessary uncertainties about developments. With their mathematical models, IPCC scientists have tied the probabilities to global temperature rises for different scenarios of greenhouse gas emission policies. They find that, without drastic cuts to these emissions, the temperature rise will be unacceptable; it will cause serious ecological and social disruptions, including sea-level rise.

But how do we deal with the uncertainties inherent in the models? Cardinal Pell's position is clear. He sees 'the moral dimension of the issue' in the following terms: "The cost of attempts to make global warming go away will be very heavy. They may be levied initially on 'the big polluters', but they will eventually trickle down to the end-users." He concludes: "Don't act when in doubt. There is no precautionary principle, only the criteria for assessing what actions are prudent".

Consider now the precautionary principle that he is rejecting. It states that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is not harmful falls on those taking the action.

This principle conforms to common sense. It is supported by many in the scientific community. It is incorporated in some legal systems, such as that of the European Union, and it is recognised in the social doctrine of the Catholic Church.

In the present instance, the actions we are concerned with are the processes that produce carbon emissions. The climate scientists have produced strong evidence that projected levels of emissions will lead to grave consequences, causing irreversible harm to the biosphere and to human beings.

While we do not have conclusive proof of these consequences, their estimates amount to the best knowledge we now have. The theoretical bases have not been successfully challenged. So it is important to take the relevant precautions, to reduce greenhouse emissions and to take other environmental measures to alleviate stress on the world's ecosystems. Such measures include stopping the destruction of forests.

But what if the scientists somehow turn out to be wrong? Will we have gone to all this trouble for nothing, and will harm be done? Cardinal Pell thinks so. He asks: "Are there any long-term benefits from the schemes to combat global warming, apart from extra tax revenues for governments and income for those devising and implementing the schemes? Will the burdens be shared generally, or fall mainly on the shoulders of the battlers, the poor?"

He is mistaken. The implications of taking action are very different from this. First of all, processes of long-term monitoring will enable decisions and policies to be reviewed and if necessary modified. Furthermore, as I will illustrate, the steps to limit global warming are steps that are of ecological and social value in other ways as well.

A change in the culture

While it is important to start out from the precautionary principle, I believe we can go beyond it. To do so, it is important to recognise how we have come to this present environmental crisis, epitomised by global warming.

What are the values that guide the development of our economic and technological systems? Many social forces interact when decisions about innovation are being made. Corporations are motivated by the goals of profit and growth. Governments tend to enhance their own power. The genuine popular appeal of ever changing technologies is also important. These various social factors - profit, state power, and consumerism - tend to be mutually reinforcing in supporting technological innovation and growth in consumption.

Underlying this system is a mechanistic view of the natural world. This is seen as needing to be developed, brought into the economy, if it is to have value and meaning. The land is seen as no more than a set of resources, as something existing for human benefit alone. This current view of nature and this style of technology are prime factors that have led to our increasing demand on the world's resources and to the present environmental crisis, of which global warming is the most striking manifestation.

Is any resolution of the crisis possible within the present world view? The government is about to set a price on carbon. This may facilitate some beneficial shift away from the more carbon intensive industrial and transport processes in favour of efficiency and renewable energy.

However, such proposals on their own are inadequate. The emphasis on carbon price tends to be a one-dimensional approach, not proportionate to the actual task of healing the damage done to the biosphere. Corporations and many citizens, thinking within the mechanical view, will continue to resist these proposals because they still view the natural world as just a set of resources and they are committed to open-ended growth. Furthermore, the government has retreated into a renewed obsession with uranium mining and export, enhancing the kind of development that will give rise to further carbon emissions while opening up new perils.

It is necessary, then, to leave the mechanical world view behind and go in a different direction. What then is the alternative? In contrast to the mechanistic view, we have another tradition with a long history - the organic view, in which nature is not just a set of resources for human use but has its own intrinsic value.

What do I mean by nature? I understand nature as the world in all its diversity: the elements, soil, plants, and animals, including ourselves. It is at once familiar yet evoking wonder. Thus the natural world has a quality of wildness; it is not something we own.

Historian Lewis Mumford relates the organic model to what he calls an economy of plenitude, in which we have renounced high-energy use, but in which we continue to develop a rich and abundant culture, including a renewed familiarity with nature. The values underlying the organic model combine our understanding of nature and our relationship with other human beings. These values include local empowerment, full recognition of human rights, as well as environmental sustainability.

The organic view represents a continuity with the past, and remains the view of perhaps the majority of people today, especially the poor of the world and many farmers. Their traditional lifestyles are grounded in a particular locality and vary from one place to another. As Ivan Illich observes, their activities are “not motivated by thoughts of exchange... [They are] autonomous, non-market related actions that by their own true nature escape bureaucratic control, satisfying needs to which, in the very process, they give specific shape”.

In the processes of economic development, such subsistence-oriented cultures have been undermined. In fact, many millions of people are in process of being displaced from their traditional lands to become a labour force in cities and in marginal extractive developments.

Organic view and Christian social doctrine

The organic view is also reflected in the social doctrine of the Catholic Church. Similar considerations apply to the other churches. Over the past four decades, this doctrine has increasingly stressed a concern for the environment, while noting the connection with the long-term concern for social justice.

In his message for the World Day of Peace, 2010, Pope Benedict chose the theme: ‘If you want to cultivate peace, protect creation’. He argued that: “Humanity needs a profound cultural renewal; it needs to rediscover those values which can serve as the solid basis for building a brighter future for all. Our present crises... require us to rethink the path which we are travelling together”. He has no doubts about climate change:

“Can we remain indifferent before the problems associated with such realities as climate change, desertification, the deterioration and loss of productivity in vast agricultural areas, the pollution of rivers and aquifers, the loss of biodiversity, the increase of natural catastrophes, and the deforestation of equatorial and tropical regions? Can we disregard the growing phenomenon of ‘environmental refugees’, people who are forced by the degradation of their natural habitat to forsake it - and often their possessions as well - in order to face the dangers and uncertainties of forced displacement? Can we remain impassive in the face of actual and potential conflicts involving access to natural resources? All these are issues with a profound impact on the exercise of human rights, such as the right to life, food, health, and development.”

He uses the word ‘prudence’ in a way that suggests the precautionary principle:

“It should be evident that the ecological crisis cannot be viewed in isolation from other related questions... Prudence would thus dictate a profound, long-term review of our model of development, one which would take into consideration the meaning of the economy and its goals with an eye to correcting its malfunctions and misapplications. The ecological health of the planet calls for this, but it is also demanded by the cultural and moral crisis of humanity whose symptoms have for some time been evident in every part of the world.”

The sense of reverence for creation expressed here and in Christian literature throughout the centuries finds no echo in the paper by Cardinal Pell. On the contrary, in trying to satirise environmentalists, he says:

“The rewards for proper environmental behaviour are uncertain, unlike the grim scenarios for the future as a result of human irresponsibility which have a dash of the apocalyptic about them, even of the horsemen of the Apocalypse. The immense financial costs true-believers would impose on economies can be compared to the sacrifices offered traditionally in religion.”

This cryptic comment can be understood in the light of the Cardinal’s remarks on previous occasions. For example, he once said that “some of the more hysterical and extreme claims about global warming appear symptomatic of a pagan emptiness, of a Western fear when confronted by the immense and basically uncontrollable forces of nature... Perhaps they’re looking for a cause that is almost a substitute for religion”. He went on to say: “In the past, pagans sacrificed animals and even humans in vain attempts to placate capricious and cruel gods. Today, they demand a reduction in carbon dioxide emissions.”

It would be hard to find room in this view for an organic perspective, or an appreciation of wildness, or a sense of God being intimately present in nature.

I must say that I find one aspect of all this extremely puzzling. In view of the Pope’s statements, it seems rather undiplomatic of the Cardinal to say that a reason he is speaking out is to avoid having too many Christian leaders repeating the mistakes of the past and “to provide some balance to ecclesiastical offerings”.

Exploring the organic vision: the appropriate scale

Let us now explore the organic vision. First consider what factors will make a culture and economy sustainable. In particular, what will mitigate global warming and other environmental stresses? Some economists and politicians argue that it is a matter of balancing the interests of the economy and the environment.

However, in reality, these two factors are not separate but intimately connected, so that we cannot achieve sustainability by this kind of balance. Rather, if our technologies are to be sustainable, they must operate within the environmental context, in harmony with the cycles of the ecosystems.

In his book, *Small is Beautiful*, economist E F Schumacher considered the question of appropriate scale in technology:

“We always need both freedom and order. We need the freedom of lots and lots of small, autonomous units and, at the same time, the orderliness of large scale, possibly global, unity and coordination. When it comes to action, we obviously need small units... For every activity there is a certain appropriate scale.”

Our present economy has been heavily globalised. It celebrates maximal flows of goods around the world and maximal personal travel for those who can afford it. If we are to reduce carbon emissions, this cannot continue. The organic alternative with its emphasis on the local scale, as suggested by Schumacher, goes hand in hand with a reduction in energy consumption.

So globalisation needs to be corrected by the recognition that many things can be done better on a smaller scale and using simpler technologies. The global can be balanced by a sense of the local, a sense of the place in which we live and all that is special to it. This recognition is essential if we are to preserve diversity in the biosphere and in culture.

Local self reliance, work and the changing economy

As we respond to global warming, we will experience important shifts in the economy, in particular a shift away from present forms of production that involve high carbon emissions. This will include a significant decline in travel and in the transportation and trade of goods. It is important to shift the balance away from globalism towards the local. It is time to recognise the neglected organising principle of local self reliance, in which communities aim to produce what they need or want, under their own management, using as far as possible local resources.

I do not claim to have a blueprint for solutions to our environmental problems. Rather, in my book, I offer some images that I hope point in the right direction. Some of my examples are from Maryborough in the early 1980s, when people were experimenting with mud-brick building and with organic approaches to food growing. I see these as signs pointing to a sustainable future.

Local self-reliance is the practice of active lifestyles: growing food, cooking, developing low energy technologies, making music. Here people enjoy the familiar interaction with neighbours, mutual help, the contact with the natural environment. As Ivan Illich put it: “There, the guitar is valued over the record, the library over the schoolroom, the backyard garden over the supermarket selection.”

A self-reliant economy would be one of equity, in which all people have access to the resources they need for their survival and wellbeing. They would participate effectively in making the decisions of the workplace and community. Material and energy needs are greatly reduced in such an economy.

While Cardinal Pell expresses worry that the burdens of reducing carbon emissions may fall mainly on the poor, I argue that the values of equity and participation go hand-in-hand with the pursuit of ecological sustainability. Processes that harm the environment cause particular harm to the poor, who often have no escape or relief. On the other hand, engaging in sustainable activity tends to empower local communities.

It is important to consider how, throughout the coming economic changes, people can meet their needs and maintain their household economies. Within the self-reliant perspective, it is not just a question of 'providing jobs', but of opening up whole new approaches as to how we sustain ourselves. I anticipate that people will develop new associations and a range of new ventures.

Provision of food is of first importance. I envisage that much more will be grown in the neighbourhood and in the city, and much less transported over long distances. There are many advantages in this. We gain enhanced food quality. There is a very considerable reduction in fuel for transportation. And through this degree of local self-reliance, we gain some economic independence.

The construction of buildings for passive solar heating, so that most of the heat comes direct from the sun, is another self-reliant activity. Furthermore, there is much potential for cooperatives and other local enterprises in retro-fitting existing buildings, for example with insulation, to make them more energy efficient, and in implementing renewable energy technologies.

Such examples demonstrate several dimensions of self-reliance. The technologies used are appropriate to the local scale and community context. There is a significant reduction in the energy and other imports required by the neighbourhood or city. Activities of designing, building, manufacturing, growing food, etc are carried out within the local community, thus strengthening its economy. Consequently, there is a reduction in dependence on the wider capitalist economy.

Connecting city, region and landscape

A sustainable culture requires organic harmony between city and countryside, between the natural and the built environment.

Lewis Mumford proposed the siting of clusters of cities in a "permanent green matrix to form a new ecological and political unit". He argued that this is essential for the culture of cities. "Where this setting has been defaced, despoiled or obliterated, the deterioration of the city must follow, for the relationship is symbiotic."

I envisage a gentle overlapping between city and farm and bushland. I hope this will be accompanied by a growing sense of community between city and country people, with shared economic benefits, including the provision of food, and a shared task of restoring the damaged ecology.

We can work towards an organic harmony between city and countryside, between the natural and the built environment. Gardens and ponds flourish in the city, producing much food, as well as an abundance of trees and flowers. The bushland itself reaches into the city, with no boundaries separating the natural from the built environment, but rather a single rich ecosystem.

Responding in depth

Before concluding, I should ask: why do I attach importance to Cardinal Pell's views on climate change? After all, his views are far from unusual and he shares many of them with other prominent climate sceptics. Yet there is good reason to listen carefully to what he says. In his paper he does a number of things. He expresses a scientific opinion and, less directly, a view of nature. He takes a political stand, along with a body of other people, and he puts forward the elements of a theological position.

The media often refer to him as 'Australia's leading Catholic'. Many people assume that his position is the mainstream Christian position. Although this is not the case, I think we can be grateful to the Cardinal for putting forward his position so publicly. He has taken that line of thought to its limits.

I have argued that it is a deeply flawed position, scientifically and in its view of our human relationship to the natural world. It is a position at odds with the tradition of Christian social teaching. It is important to understand his position in order to express our alternative view most clearly, and to carry this forward most vigorously to the public.

I believe that the environmental crisis, epitomised by global warming, calls for a response in the depths of our being. The organic view, that I have explored, embodies a vision of the good life. Achieving sustainability demands a transformation, even conversion, in the very depths of our being. Let us consider a couple of insights into what this entails.

It is important, first of all, to be really at home in our local place. Thomas Merton, reflecting in the grounds of his monastery in Kentucky, wrote:

“More and more I appreciate the beauty and the solemnity of the ‘way’ up through the woods, past the barn, up the stony rise, into the grove of tall, straight oaks and hickories around through the pines, swinging to the hilltop and the clearing that looks out over the valley... It is essential to experience all the times and moods of one good place. No-one will be ever be able to say how essential, how truly part of a genuine life this is.”

Australian theologian Denis Edwards sees ecology as having its place at the heart of our faith.

“Commitment to the poor and commitment to the wellbeing of life on this planet must go together as two interrelated dimensions of the one Christian vocation... Ecological conversion, like conversion to the side of the poor, will need to involve both the political and the mystical, and the discovery of the mystical precisely in the political.”

Yes, all these aspects of the task are connected: the science, the political, the ethical, and the mystical. It is important to understand the science well and to engage in the urgent political task of building up networks in which we work together on global warming - perhaps the central issue of our times. And underlying all this is the work of our own conversion, individual and communal - what Edwards calls the mystical - on which all else depends.

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