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# An analysis of climate change denial

Saturday 14 May 2011

http://www.abc.net.au/rn/scienceshow/stories/2011/3216474.htm

Authors John Cook and Haydn Washington analyse the approaches of those who deny climate science. Despite multiple lines of evidence pointing to the same conclusion, deniers continue to deny. Cherry picking is one tactic. Another is the use of fake experts or scientists who are not climate scientists. The authors explore why, as the science firms, the public view, at least in Australia, is going the other way.



DOWNLOAD AUDIO - HTTP://MPEGMEDIA.ABC.NET.AU/RN/PODCAST/2011/05/SSW 20110514 1212.MP3

**Robyn Williams:** This was the dinner speaker at the Australian Academy of Science last week, Lord May.

**Robert May:** I want to talk tonight just a little bit about some of the aspects of our seeming inability to recognise the seriousness of things. And I will now tell you my one joke. There are two people on an aeroplane. If it were told in Britain they would be either Irish or Polish, if it were told in Canada they would be from Newfoundland, and I guess in Australia they would be New Zealanders.

But anyhow, they are going along, and it is a fourengine plane. One bloke looks out and sees the engine is on fire, but over the announcement...the pilot says, 'Not to worry, we're putting the fire out, we fly perfectly well on three engines, we will just be about half an hour late.'

A little bit later, a second engine goes. The pilot says, 'Not to worry, two engines are more than adequate, we can get by on one, we'll be about an hour late.' A third engine goes. And one of the blokes says to the other, 'This is getting serious. If the fourth engine goes we're going to be really late and I'm going to miss my connection.' It is a wonderful summary of our tendency to believe the future is a gradual extrapolation of the present.

**Robyn Williams:** Bob May, Lord May of Oxford, at the Academy of Science.

Plenty who pronounce on climate science are not climate scientists, and a new book launched this week by Bob Carr, former Premier of New South Wales, tackles all the standard lines denying the science.

It's called *Climate Change Denial: Heads in the Sand*, by Haydn Washington and John Cook. And soon every federal politician will have one. John Cook has been sorting the arguments via his website.

**John Cook:** I guess building a database of it, it's like putting a puzzle together, and so once I had been doing that for several years I could see all the patterns, and I guess the one common pattern is it is about denying the evidence. And then you could just start to see the different techniques that they use.

Cherry-picking is one technique, or conspiracy theories, which is just another way of avoiding the evidence altogether.

**Robyn Williams:** And was it at all affected by any evidence that came out? For instance, when we are talking about the East Anglia email scandal, there were three, possibly four enquiries, and each one found in favour of the scientists in terms of the scientific evidence. But that seems not to have stopped denying at all.

**John Cook:** Yes, there has actually been eight independent investigations into it, and they have all found the same results. So it's almost like climate science where we have multiple lines of evidence finding the same conclusion. But conspiracy theories are very popular amongst any group that wants to deny a scientific consensus.

**Robyn Williams:** So you're saying that rule one, let no level of evidence influence what you're saying.

**John Cook:** Well, if you can get away from talking about the evidence, then I guess it's a lot easier to deny the scientific consensus.

**Robyn Williams:** So you're giving me some of the ideas, there is the cherry-picking, and they are suggesting that temperatures have in fact not gone up since 1988. What else?

**John Cook:** I guess another popular tactic is using fake experts, and the most popular version of that is this petition project from the United States where they list 31,000 names which they say are scientists that are sceptical of global warming.

**Robyn Williams:** Yes, I've seen that many, many times where 31,000 scientists have been said to come out and say that they disapprove of...exactly what?

John Cook: The actual statement that they signed their name to is generally that human activity can't cause climate disruption and in fact CO2 is a good thing, something to that effect. But when you look at all the names on the lists, about 99.9% of them are not climate scientists. So it's this raising of fake experts, and that tactic has been used way back to the '70s where the tobacco industry, had this 'operation white coat'. They would have the scientists come out and say there is no link between smoking and cancer. In fact there's even sometimes the same scientists who are saying the same thing now, that there is no link between pollution and global warming.

**Robyn Williams:** Who are these scientists nonetheless? Are they scientists?

**John Cook:** Most of them probably are scientists. There are a few funny names there, I think Posh Spice might have been on there or somebody. But what they are, are mechanical engineers, medical doctors, and the point is when you have a technical and complicated subject like climate change, you want to get the opinions of climate experts. So, for example, if you were going to get a heart operation, you wouldn't want a mechanical engineer cutting into you, you would want somebody who was an expert on that.

**Robyn Williams:** Did you ask yourself why they were signing in the first place?

**John Cook:** Yes, that was a major theme of our book. I looked into how the tactics mislead, and Haydn's primary contribution to the book was looking into why these people were denying.

**Robyn Williams:** A perfect cue for Haydn. Why is it happening now?

**Haydn Washington:** That's the \$64,000 question that fascinated us, that the science is getting more and more certain, so this is where you've got to look at what denial is, and in terms of the fact that it is very common. Scepticism is almost the opposite of denial. All scientists should be sceptical, but scepticism is a search for the truth, if you look at the actual definition, and denial is hiding from the truth and running away from it. So people who actually say they are sceptics on climate change, in fact mostly they're not. All scientists should be sceptical, but in fact they are denying it because it's what they want to believe.

A useful definition is to split it up into three sorts of denial; literal denial, which is like your denial industry funded by fossil fuel companies and there are lots of people who have written about that. Then there is interpretive denial, which is what we know better as spin, which governments tend to use, much the same as where you talk about collateral damage instead of massacring civilians. And then there is what we became

most fascinated with, or I did in writing this section, is implicatory denial, which is the denial...something makes us afraid, if it conflicts with our self image and we have the ability to flick a switch in our brains and deny it. And that's why the science is getting more and more certain but we have dropped at least 20% in Australia in terms of the people who believe climate change is real.

**Robyn Williams:** So, tease that out. What you're saying is that we like our life, what is being said by the scientists is certainly inconvenient, it means a profound change to the way we do many things, we don't like it, so it's not on.

**Haydn Washington:** Yes, as far as we know maybe chimpanzees deny things too because they carry around dead infants which is probably a case of denial that was pointed out to me. Denial is a delusion. And what we're pointing out here is that when it's actually threatening the ecosystems upon which our society relies and our whole civilisation, it's actually become a pathology.

**Robyn Williams:** On the other hand, from my point of view, having done thousands of interviews on this subject, if someone is conscientious, he or she can look up the evidence, as you have in the book, meticulously, and to deny it amounts, does it not Haydn, to lying?

**Haydn Washington:** Well, it's a delusion, so it's a lie in regard to reality, yes, it's hiding from reality. And one of the chapters asks 'do we let denial prosper?' and we look at various things, like the fear of change, the failure in values, ignorance of ecology, gambling on the future. The media itself has what is being called balances bias where you have all the climate scientists in the world on one side and someone from a rightwing think tank who is into denial are given equal prominence.

**Robyn Williams:** We have to avoid groupthink.

**Haydn Washington:** Media loves controversy, and of course most of the media is owned by conservative interests also, and Naomi Oreskes has shown very convincingly through a great deal of research that there is an ideological bent where conservatives believe the market represents liberty, and if you were going to regulate the market due to climate change to try and fix things you are attacking liberty, and therefore these people are opposing denial. So all these things are involved, and the answer is yes, we do let denial prosper, and we have a couple of chapters talking about how we roll back denial. But I think the key part is to recognise that there is denial and it's a major problem stopping us from solving one of the world's greatest issues.

**Robyn Williams:** Well, Naomi Oreskes of course has written the introduction to your book, and she was on *The Science Show* on 8th January, and she's coming back for the Sydney Writers Week, funnily enough, in a few days time. But John, how many scientists who are working in the field of some standing have you found who are making a genuine critique of some important aspect of the accepted climate science?

**John Cook:** I could probably count them on both my hands I guess, maybe a half dozen or so scientists that actually published papers that are sceptical that global warming will be bad in the future. Generally amongst

scientists, even sceptic scientists, there is very little dispute that human activity and carbon dioxide is causing warming.

**Robyn Williams:** I know that there are one or two in the United States, and I have corresponded with them, who are concerned perhaps to criticise the rate of change, the effect of CO2, and detail like that, but very few that I can think of of any standing who are saying that the whole thing ain't on.

**John Cook:** No, I think the general sticking point among sceptic qualified scientists is they tend to hang their hat on this proposition that negative feedback will cancel out the warming that we cause, it's like a get out of jail free card. But the main argument against that is when we look back through Earth's history, that has never happened before, there has always been positive feedbacks of amplified warming.

**Robyn Williams:** And what about how the CO2 will have a diminishing effect at higher levels?

**John Cook:** Well, it does, that is not disputed, and that is taken into account in all the models and all the calculations. There are two really important things to point out about that, one is that we measure the actual effect from CO2 so satellites and planes observe the heat coming from the Earth and escaping out to space, so they can compare what we simulate or what we expect with what is actually happening. So observations show that CO2 is causing warming. And I think the whole diminishing CO2 effect, that's something you'd read on the internet but there is no actual genuine scientists who would make that argument.

Robyn Williams: And then of course there's the argument about computers and modelling, and it's very interesting to see a film that was made by the new president of the Royal Society of London, Sir Paul Nurse, who actually began his term in office by doing a film for the BBC taking on the deniers, and he went to of the main people the Spectator magazine and bailed him up, and also went to a fascinating place where they are actually showing climate models in action. You know, you've got a screen above and a screen below, one is the model showing weather patterns lines, streaming out according to the model, and the other one is the actual weather being shown from a satellite, and they are exactly the same. It's quite remarkable. The models I think have been portrayed as being unsophisticated, bodgy, and computer crunching, in fantasyland, but in fact they are unbelievably exact, aren't they.

John Cook: The models are getting more and more sophisticated, and they can calculate the whole global trend quite accurately, and now they are getting better and better at working out regional trends as well, which is where they get useful because then different areas can work out how climate change is going to affect them. But it is also important to realise that the case for global warming isn't purely based on models, it is also based on many lines of evidence, and that is the evidence that climate deniers are trying to deny. By focusing an attack on models, they are trying to deflect attention away from all the evidence that we have.

**Robyn Williams:** Haydn, there has been a trend, has there not, as the science has become more and more powerful, for some elements, for instance Bjorn

Lomborg, the sceptical environmentalist, to say that, well, yes, it's happening, but suggesting adaptation is more important than doing what's mainstream.

Haydn Washington: An interesting phenomenon, what they call non-denial denial, so you get people who are saying yes, we accept climate change is happening, however when we look at all the things we should be solving around the world, whether it's malaria or HIV or the suggestion that you are going to focus with adaptation, well, if you are living in Bangladesh where 20% of the population could go under with a one-metre or two-metre sea level rise, then they are not going to be able to adapt very effectively. Or if you are looking at 35% of the world's species probably being in danger of extinction, or as James Hansen has pointed out, to talk of 16 of the world's major cities on sea level, to talk about adapting to what could be a five-metre sea level rise in the next couple of centuries is insanity because you can't adapt to that, it is an economically huge impost we are talking about. So yes, it is easy to talk about adaptation, but it's a way of allowing business as usual to continue as long as possible.

**Robyn Williams:** So you're suggesting they are adapting their argument to have the same effect but differently.

**Haydn Washington:** In the face of this overwhelming scientific evidence, you don't actually try and deny any longer that climate change is happening, what you try and do is sort of say yes, it is happening but unfortunately it's uneconomic for us to do anything about it.

**Robyn Williams:** And you shouldn't be alarmist because it's not going to be as bad as you think.

**Haydn Washington:** Yes, that's the other side of it, that yes, possibly we can adapt because humans are adaptable, but of course we have evolved...our civilisation evolved in 8,000 years of stable climate, so we have never had to adapt to a rapidly changing climate.

**Robyn Williams:** I want you to make a value judgement now, Haydn, of the ones you looked through with those sorts of social trends you've been examining. How many of the people you're talking about are doing so out of goodwill, and how many do you think are doing something of a put-up job?

Washington: Yes, that's а fascinating question. When you read some of these denial books you keep asking yourself is this person for real or are they actually doing it deliberately to try and confuse the issue. And I think it's interesting that Naomi Oreskes in her book looks at this same thing to try and ask yourself what is going on. Is it actually that these people have been bought out by big money, or do they actually believe it? And I think probably a lot of them actually do believe it, that it is an ideologically driven belief that they think they are actually doing the right thing rather than...and I think there are also some people who are in the denial industry who know very well that they are doing it because they want to keep reaping massive profits out of fossil fuels for as long as they can.

**Robyn Williams:** John, what is going to happen to your book, is it going to politicians and so on?

**John Cook:** Yes, we are printing a special parliamentarian copy which will have a statement in the front of the book which has been signed by John Hewson and Bob Carr and seven climate scientists, and we are sending that out to every federal member in Canberra.

**Robyn Williams:** Will you give a personal one to Nick Minchin?

**John Cook:** I'll be happy to sign a copy for him, yes.

**Robyn Williams:** Because he used to be a minister for science and he says the arguments about climate change are wrong.

**Haydn Washington:** Clearly those who are really strongly in denial who know the truth are not going to get much out of it, they're not going to believe it, they're not going to question their own denial. We are really writing to those people who are not that far gone, they are genuinely confused about what is going on, because if you are not a scientist who has done a lot of research on this, if you look at the media you could be forgiven for thinking it was 50-50 in the scientific community in regard to whether climate change is happening rather than 97.5% amongst practising climate scientists and every academy of science in the world believing that human-caused climate change is real. So yes, obviously not everyone is going to realise that they're in denial, but there are a lot of people generally out there who are confused and trying to make headway. And I think what needs to be pointed out is Australia is tremendously at risk. I know that what a lot of climate scientists are depressed about is that the scope of the impacts that are going to occur is far greater than the cost of doing something abut it.

**Robyn Williams:** Haydn Washington with John Cook. Their book is *Climate Change Denial*, and it's very readable and a handy reference to look up debating points and facts, launched this week by Bob Carr.

#### Guests

Robert May, Professor of Zoology, University of Oxford, Oxford UK

http://www.zoo.ox.ac.uk/staff/academics/may r.htm

John Cook, Author, Brisbane, Australia http://www.skepticalscience.com/

Haydn Washington, Environmental Scientist, Sydney, Australia.

**Publications** 

Title: Climate Change Denial Heads in the Sand Author: John Cook and Haydn Washington Publisher: Earthscan Publishing Washington DC and London

URL: http://www.earthscan.co.uk/?tabid=37&st
=basic&se=climate+change+denial

Presenter: Robyn Williams Producer: David Fisher

# Comments

Harold: 17 May 2011 2:45:00am

John Cook: "And I think the whole diminishing CO2 effect, that's something you'd read on the internet but there is no actual genuine scientists who would make that argument."

The "settled science" accepted by the IPCC tells us that CO2 sensitivity is a log relationship, so concentration

needs to double to get the same forcing as before. 300,600,1200 etc will each give the same warming effect. So the effect does diminish as concentration increases. What's funny is Mr Cook's own SkepticalScience website tells us that! ("something you'd read on the internet")

http://www.skepticalscience.com/climate-sensitivity-skeptic-end-game.html

And yet he comes out with the above quote in this interview.

#### Lucy: 17 May 2011 12:09:04am

Thanks for the excellent program. As many comments show - chimps aren't the only apes to clutch a rotted baby.

#### Bernie Lewin: 16 May 2011 10:42:35pm

"Plenty who pronounce on climate science are not climate scientists, and a new book launched this week ...tackles all the standard lines denying the science."

Was not the irony of this statement obvious to the speaker? The new book that makes pronouncements on climate science against the sceptics (as plainly noted on the transcript) is not written by climate scientist.

By citing climate science to make their points, they are in this respect doing precisely what many sceptics are doing. In fact, there is no distinction to be made on this point between what these authors are doing and what the shock jocks do when they (as they sometimes do) cite the science.

One of the authors (Washington) goes on to make pronouncements about the nature of the denier's 'delusional' condition, their actual (psycho)'pathology.' And I wonder in what branch of science are those who are qualified to make pronouncements on that? Environmental scientist or a psychiatry?

Haydn Washington had one message for those like myself who hold strong doubts about the evidence of which he is so sure. That I am delusional. Mad. But Williams suggest that I am not mad, just bad: if I am "conscientious," if I "look up the evidence," then I am I not a plain liar?

Is this the Science Show? What indeed has this debate descended to?

**FT responds:** You are lucky to have got off so lightly. I have spent time in five prisons in three countries because I refuse to believe in the Holocaust-Shoah narrative as propounded by believers.

I now wonder how many of the Climate Change Believers are also Holocaust Believers?

Is a scientist's job not to stop believing and instead wanting to find out the factual truth of a matter.

# Girma: 16 May 2011 10:12:07pm

IS GLOBAL WARMING MAN MADE?

Let us look at the data. There was five-times increase in human fossil fuel use from about 30 to 170M-ton of carbon in the recent warming phase from1970 to 2000 compared to the previous one from 1910 to 1940. However, their global warming rate of about 0.15 deg C per decade is nearly identical as shown in the following graph.http://bit.ly/eUXTX2

In the intermediate period between the two global warming phases from 1940 to 1970, there was global cooling with increase fossil fuel use of about 70M-ton as shown in the following graph. http://bit.ly/g2Z3NV And since about 2000, there was little increase in the

global temperature with further increase in fossil fuel use of about 70M-ton as shown in the following chart. http://bit.ly/h86k1W

According to the data, there is no evidence of man made global warming!

# Diogenes: 16 May 2011 9:17:34pm

cont. Why does RW believe? He has a modest background of science education and a vast acquaintance amongst the great and good of science and he should recognise that a lot of them can be explained quite as well by the kind of pop-psych he indulged in the program as so called deniers. Likewise the natural believers who have always looked for and even signed up for causes which will purify their souls and give them purpose.

Follow the real money too. Curiously you won't find too many climate scientists because there aren't many rather than people piecing together bits and pieces which may contribute to answering the big questions. If he thinks the models beloved of the IPCC editors - "lead authors"- are so good why are there 7 very dufferent ones in the last IPCC report? Mightn't some of the factors which have notoriously been distorting medical and related research and the reporting of it give him pause to wonder about human problems in the vast complex expensive area of climate science(s)? And why behave as though he is a scientifically literate Kevin Rudd who believes he can move the world?

#### Brenton: 16 May 2011 9:11:08pm

This climate denial business is part of a bigger problem humanity has. Our unwillingness to consider change at all. I tend to look at things like this as a case of 'sliding baseline syndrome' sometimes called 'slipping baseline syndrome'. Some of us wont accept that things change and we lose from our memory and understanding what has been lost.

Although our biodiversity suffers and ecosystem services decline, some of us wont acknowledge it. Then humanity has this conflict over 'climate change'.

# Diogenes: 16 May 2011 9:10:24pm

The interesting question is why do people believe speculative unproven things rather than simply note calmly the truly obvious, namely that it is nitwitted of Australians to waste money on windfarms, solarvoltaic generation (as technology now stands) and the costs of reducing the economic comparative advantages we have thanks to coal without even achieving any benefit to our future climate. So why does Robyn Williams pander to such a pair of feeble believers rather than cross-examine them? He even thinks all the East Anglian email related malefactors were truly and honestly cleared! cont.

#### Bob\_FJ: 16 May 2011 4:42:15pm

It's hard to know where to start, but I'll pick out a few points from the transcript.

QUOTE: John Cook: Yes, there has actually been eight independent investigations into [the Climategate scandal], and they have all found the same results. So it's almost like climate science where we have multiple lines of evidence finding the same conclusion. But conspiracy theories are very popular amongst any group that wants to deny a scientific consensus. UNQUOTE

Eight vindicating enquiries he says. Really? The few I've seen critiqued all had faults like poor representation and such as failing to ask questions about Jones' talk of evading FOI. A boolian Google search gave me 6170 results for: Climategate +whitewash

2) QUOTE: John Cook: ...So observations show that CO2 is causing warming. And I think the whole diminishing CO2 effect, that's something you'd read on the internet but there is no actual genuine scientists who would make that argument. UNQUOTE.

What are these observations? As far as I know there is no empirical data that shows a CONNECTION between global warming and CO2. There is a recent warming in temperature data to 1998 and it is very similar to that from around 1910 to 1940, which was before significant increase in CO2. The assumption is derived from computer modelling which includes parameters of high uncertainty, notoriously; clouds. (and the 1998 spike is generally agreed to be a big El Nino event) Atmospheric physicists/climate scientist do nor dispute the logarithmic effect.

- 3) QUOTE: Robyn Williams:...You know, you've got a screen above and a screen below, one is the model showing weather patterns lines, streaming out according to the model, and the other one is the actual weather being shown from a satellite, and they are exactly the same. It's quite remarkable. The models I think have been portrayed as being unsophisticated, bodgy, and computer crunching, in fantasyland, but in fact they are unbelievably exact, aren't they. UNQUOTE OH really? The IPCC AR4 forecast was for a warming of 0.2C degrees/decade, based on modelling. Sorry but it has been cooling for over a decade. All computer models depend on assumed input parameters, some of which have high uncertainty, or to put it another way, are not well understood.
- 4) QUOTE: John Cook: I could probably count [sceptical scientists] them on both my hands I guess, maybe a half dozen or so scientists that actually published papers that are sceptical that global warming will be bad in the future. Generally amongst scientists, even sceptic scientists, there is very little dispute that human activity and carbon dioxide is causing warming. UNQUOTE

There is this list of over 900 sceptical peer reviewed papers though:

http://www.populartechnology.net/2009/10/peer-reviewed-papers-supporting.html

And yes, probably all atmospheric scientists including sceptics agree that there will

# Bruce: 16 May 2011 3:47:10pm

I hope the book is more convincing than the interview. Using the word "Denial," assumes that all or most of the science is final and there is no need for further debate. It also disrespects the work of climate scientists whom have very convincing theories, backed by evidence, that may question aspects of the authors' so called rock solid evidence.

# Nigel Leck: 16 May 2011 1:30:59pm

Yes, sure the question of the degree of warming by 2050 can be answered by simply waiting until 2051. It's like we are all on a train, our denier friends are saying we should keep going at the speed that we're because they're very important and late for a meeting, while other people who are at the back of the train are

saying we are going too fast to take the (up coming) corners.

Our denier friends dismiss these concerns because gees what would those people at the back of the train know. We then ring the train engineers to find out what speed the train can take the corners at. When it's pointed out that the speed-o says that we are going faster, than what the train engineer says we can take the corner at, the denier say that the speed-o has been rigged and besides their dentist friend says we can go faster.

Then other people say "geez look at those large trees in the distance they are going by fast", the denier again dismiss their claims, as they say "the trees are small and close up". Then someone opens a window and sticks his head out and says "geez the wind is going by fast", the denier claims that we are going into a head wind, and that it's very important for them to get to where they're going on time.

People point out that if we are going too fast, we might crash and the denier will not get there at all, but our friends at the front know something about train wrecks and say "that's not true. The back few carriages will fling off first and due to the law of conservation of momentum the first class carriages will naturally slow down and take the corner".

Frustrated, the passengers take matters into their own hands and start sitting on the inside of the corner as the train approaches the first corner to which the denier says, "great we can go faster".

We all hope that the denier is right but are dismayed that they're willing to risk everyone else's welfare just so they're not late....

There comes a point when the prudent action is to moderate our behaviour to avert possible severe consequences, think of it as car/house insurance.

## Peter Schmidt: 16 May 2011 10:18:40am

I and many of my friends have been downloading the Science Show for many years and treasured them. Not anymore. The last year was nearly all propaganda. You have lost many people in their forties and fifties because your cynical view of climate science. The same goes to Dr Karl.

#### bluetoo: 15 May 2011 7:23:18pm

Try reading this description of atmosphere by a real astrophysicist, Joseph Postma.

http://climaterealists.com/index.php?id=7457

#### bluetoo: 16 May 2011 12:35:42pm

The Joseph Postma paper should be required reading for anyone interested in this debate. It eloquently explains how the present function of the atmosphere is perfectly well explained by conventional theories of thermodynamics and even explains why beach sand is hot in the sun. According to Postma, the temperature of earth is exactly as it should be. The "greenhouse" theory has not only been falsified by Gerlich and Tscheuschner, it is completely unnecessary after Postma. It is only a matter of time before the "greenhouse theory" is consigned to the junk bin in textbooks.

#### Derek Bolton: 16 May 2011 3:17:33pm

bluetoo, he has blinded with you with science. Glossing over a few bits of theory he gets wrong, his argument boils down to this:

- 1. Thermodynamics says the effective black body temperature of the earth is -18C, and this is matched by observation from space.
- 2. We observe much balmier temperatures at the earth's surface in practice.
- 3. The Greenhouse Theory says the difference is down to the greenhouse effect.
- 4. Postma observes that the temperature of -18C occurs at 5km altitude:

"This altitude is found at about 5km in height above the ground surface by observation."

5. He calculates from more thermodynamic theory that we should therefore expect the temperature at the surface of the earth to be 14.5C. Voila! No need for a greenhouse effect.

The blunder, of course, is that he offers no explanation for the -18C line being at 5km. And the explanation is ... the greenhouse effect!

# Gederts Skerstens: 15 May 2011 7:10:16pm

Ten seconds into the replay is enough. Evidence isn't a long list of characters who endorse some notion regarding temperature and sea level. The temperature and sea level provide that. So, still sweating in the first days of Autumn, ankle-deep in seawater and saying toodle-oo to Tuvalu, who wouldn't join the Climate Response Action Party?

#### Evan: 15 May 2011 3:29:53pm

I was grimly amused by the rather ironic comment that a carbon tax represented government interference with the free market. Governments have been interfering with the energy market for a long time, in the form of exploration subsidies & tax credits. It seems that even the first gulf war represents governments interfering in the market - the producers wanted to put a more realistic price on their finite resources; some bowed to intergovernmental pressure to pull out of the arrangement, and other producers refused. The result: war.

# dlb: 15 May 2011 10:52:26am

Humans despise uncertainty, that's why we have religion and climate science. Woe betide those that deny either.

# Billy Bob Hall: 14 May 2011 9:05:16pm

What utter sewage this segment was. Tell me where was the science interest was here. There was none. It was complete political propaganda. Shameful, shameful, totally shameful. The Science show should be axed immediately. It no longer serves a useful purpose.

#### Michael Kile: 14 May 2011 5:44:59pm

Robyn Williams: Ironic that your program - beginning and ending with a "I'm not a climate scientist" rap music rant, segments that surely will further undermine public trust this discipline's prognostications - included a sympathetic chat with the authors of a book about "climate change denial", both of whom are not climate scientists.

The public, fortunately, does not need to assess the veracity of the various climate change arguments to make a decision on this issue. The 60 per cent recently polled as sceptical about a carbon (dioxide) tax, generally take this view for other reasons.

They rightly will not accept that the government of a continent - with only 1.5 per cent of global emissions -

can adjust the planet's elusive thermostat (and climate) until it is "just right" by taxing only them.

Secondly, many also cannot see how it can be fair and reasonable to penalise thermal coal consumed in power generation here, while tax-free coal is exported for tax-free consumption in countries emitting much greater quantities of the alleged "carbon pollutant".

Others are becoming more aware of climate science's dark secret - there are no established laws of climate, only a controversial hypothesis and models without genuine predictive power. They too are unconvinced that speculation struggling with its own internal contradictions is sufficient justification for restructuring Australia's - and the world's - energy economy.

Some prominent professional climate scientists - such as Judith Curry (www.judithcurry.com) - are asking (post-Climategate) whether there could be "confirmation bias" operating within the global climate research community, especially the IPCC.

"The question needs to be asked as to whether the early articulation of a preferred policy option by the UNFCCC has stimulated a positive feedback loop between politics, science, and science funding that has accelerated the science towards the policy option (CO2 stabilization) that was codified by the UNFCCC...The net result is an overconfident assessment of the importance of greenhouse gases in future climate change."

Indeed it does. But the authors of this book do not ask it.

#### David Arthur: 16 May 2011 6:04:43pm

Gday Michael Kile, Here's how it is right that the government of a nation - with only 0.31 per cent of the world's population, and 1.5 per cent of its anthropogenic CO2 emissions - can tax that nation's anthropogenic CO2 emissions.

BY CUTTING OTHER TAXES, so that the taxpayers can decrease their tax liability in future years by investing in low/zero emission equipment and technology.

FYI, here's my submission to the Dept Climate Change's "Proposed Architecture and Implementation Arrangements for a Carbon Pricing Mechanism".

# CARBON PRICING MECHANISM: FOSSIL CARBON GST SURCHARGE

The use of fossil fuels invariably results in emission of carbon monoxide or carbon dioxide to the atmosphere; a price on carbon emissions to the atmosphere can therefore readily be created by a small modification to the calculation of the GST (Goods and Services Tax) that is applied to fossil fuels. That is, whereas GST is presently calculated is 10% of the price of a good or service, the GST on fossil fuels would be calculated as 10% of the price of the fossil fuel PLUS the dollar rate of the fossil carbon surcharge multiplied by the fossil carbon content of the fossil fuel.

For example, consider 2 tonnes of coal, which assays 76% carbon.

If the price of the coal (excluding GST) is \$50 per tonne coal, then the 2 tonnes of coal has a GST-free price of \$100; with GST making up 10% of the total price to be paid, GST of \$11.11 applies, so that the price of the coal inclusive of GST is \$111.11.

If the rate of fossil carbon surcharge is \$25 per tonne fossil carbon, then the price of the coal is still \$100 exclusive of GST; now, however, the GST that applies to the coal is  $$11.11 + 2 \times 76\% \times $25 = $11.11 + 1.52$ 

x \$25 = \$11.11 + \$38 = \$49.11. In this case, the total price to be paid for the 2 tonnes of coal, inclusive of GST, is \$100 + \$49.11 = \$149.11.

ADVANTAGE: REVENUE\_NEUTRALITY CREATES OPPORTUNITIES FOR OTHER TAX CUTS

It is suggested that, while SOME of the additional revenue raised by this GST fossil carbon surcharge can be applied to decreases of State taxes, much of the additional revenue be applied to cuts in Commonwealth company and personal income taxes and to appropriate adjustments to welfare benefits. [If any of this additional revenue is disbursed to States, then it is recommended that payroll taxes and other Stateimposed barriers to employment should be eliminated. In turn, this could have beneficial flow-on effects on welfare expenditure, and improving national productivity.1

Carbon tax treatment of exports:

the carbon tax surcharge component of the GST is treated in exactly the same manner as the rest of the GST treatment of exported goods.

Carbon tax treatment of imports:

the carbon emissions embodied in imports to Australia are included in the Border tax Adjustment. As well.

## IanC: 14 May 2011 1:53:17pm

The religious war between the believers (warmists) and deniers (skeptics) will be eventually settled on the battlefield of science.

It will not ever be settled by an anti-skeptic warmist movement. It will be settled by proper science. Climate scientists seem to date unable to articulate exactly which physical mechanism they propose to be responsible for the atmospheric "greenhouse" effect. Without a falsifiable proposition, it is impossible to be proven wrong.

Gerlich and Tscheuschner have suggested the radiative greenhouse theory is "unphysical".

Climate scientists will not be able to demonstrate their present theory to be wrong until they accept that it could be wrong. To my knowledge, in spite of the Tyndall gas effect of IR radiation absorption, there is no empirical evidence that CO2 molecules can emit absorbed IR radiation in a manner that results in net heat flow from cooler to warmer. G&T argue this from the perspective of theoretical physics.

The Science Show should also present the "denier" perspective to counter the "warmist" perspective, lest it be accused of anti-scientific bias.

"Slaying the greenhouse dragon" may be interesting reading, depending on which religion one follows.

## Reality: 16 May 2011 6:29:22pm

Ian, your comment "Climate scientists seem to date unable to articulate exactly which physical mechanism..." hits-the-nail-on-the-head, because the atmospheric greenhouse effect theory does not offer one. The shame of it all is the AGW science movement pointedly refuse to recognise the physical evidence of INDOEX in 1999, which was forecast to be capable of adversely affecting global hydrology.

Briefly, INDOEX, a group of some 250 scientists, discovered a concentration of atmospheric pollution over the equatorial waters of the Indian Ocean covering an area the size of Australia. Subsequent monitoring of this pollution, known as the Atmospheric Brown Cloud,

has found it is present for 3-4 months yearly due to an inversion. It is severe enough to interfere with the creation of evaporation from the sun's rays - leading to regional droughts as well as other unwanted global effects .

So what we have here is a dimming, not warming, event of compelling importance.

Therefore, instead of being sidelined with controlling greenhouse emissions, we should be concentrating our efforts on reducing emissions of particulate matter from fossil burnings.

#### Fredrick Töben: 17 May 2011 12:15pm

I had to smile throughout the interview because the arguments used by the climate-change believers to refute climate-change sceptics is the very same used by the Holocaust-Shoah believers who label and smear anyone who disagrees with their version of events as 'hater', 'Holocaust denier', 'antisemite', 'racist', 'Nazi', etc.

I wrote my thesis on Karl Popper's Theory Falsification and C S Peirce's Principle of Fallibilism, and concluded, as they did, that all our knowledge about our world - physical and mental - grows, and that there is no absolute in science except that which we create in our mind.

The Muslim world spells it out clearly: nothing in life is perfect, only God is perfect.

Hence, the coming together of the physical and the mental world never produces absolute knowledge as claimed by the 'greenhouse effect-global warming-climate change scientists.

This is where Popper's contribution to the debate is interesting. He maintains that we ought to welcome contrary opinions and so that scientific results are tested because what is left over after subjecting a theory to a falsification process is indeed new knowledge.

If this is not done, then we have the situation that prevailed in Marxist-socialist countries: justifying a theory and condemning dissent, which filled the GULags with those who refused to accept the prevailing orthodoxy.

One current example from science is Prof Peter Duesburg and Eleni Papadopolous-Eliopolus. The former claims HIV is not the prime/sufficient determiner of AIDS, while the latter is even more radical. She claims HIV does not exist.

Both have been shunted out of mainstream science into the netherworld of 'deniers', where the 'Holocaust deniers' rule the roost, of which I am one of them.

I am pleased to state that I would rather be labelled a 'Holocaust denier' than a 'Holocaust liar'.

In any case, as with the climate change skeptics, as a Holocaust questioner I am still waiting for anyone to present me with the following proof:

- 1. That six million Jews died during World War Two;
- 2. The written Hitler Order that began the process of extinction because any bureaucracy needs a written order to start functioning;
- 3. Show or even just draw the murder weapon homicidal gas chambers.

The rest of the argumentation surrounding matters Holocaust is just busy work and mud-slinging because those who believe in the Holocaust have no answer - and then resort to legal silencing mechanisms, which is essentially legal persecution designed to shut you up, to shut you down and stop to think.

And that's sad.