A colleague and friend sought my opinion on papers he had been asked to write on attitudes to the 'climate change' question and especially on the 'consensus'. This was my slightly edited reply.

As I wrote the other day, whether or not scientists have a consensus about anything is only interesting if you have a reason to doubt or question the consensus. I don't, for example, question the present consensus among doctors and dietitians that to prevent obesity plenty of exercise and a modest intake of food represent a great start. There will still be people who suffer obesity for reasons of genetic inheritance, however much they try to exercise and however hard they try to limit their diet. Nonetheless, for the great majority the consensus is a good place to begin.

In the case of AGW, however, what is proposed to be the case leads to governments' adopting or proposing public policies that affect me and everyone, so questioning what the consensus appears to be about is an obvious option for us all, unless we already agree with what the government proposes to do, because we 'believe', or for other reasons.

Garnaut didn't take the questioning option in 2008 — and nobody is obliged to. Garnaut, like Clive Hamilton (for whom the question is not what to believe but whom to believe), says that he has to go with the mainstream because it's all too hard for an economist like him. I went the other way, because I can, and have a lot of experience in testing scientific claims, especially scientists' requests for more money. So Garnaut relies on 'authority' because he has no other base on which to proceed with his econometric analysis. The 'consensus' among 'climate scientists' thus becomes the 'authority' that is important to him, and he needs someone to pronounce on that consensus. I began to inspect both the consensus and the authority a few years ago, and reached the conclusion that both are bogus, and that we are dealing with a most interesting and relatively unprecedented issue in politics. I've written about that, and you don't need any more from me on it.

How can I help you? I've now read each of your papers, and they are good accounts in each case, though in my opinion you are kinder than you need to be to the orthodox view, and something of your own attitude to the issue comes through. I can afford to be wrong. Had Ross asked me for my opinion (!) I would have said that he is going about things the wrong way, and that he needs to recognise that the surveys in question had a political purpose. I would then comment rather as follows.

There seem to me to be three important assumptions. Each needs inspection.

(1) That there is a field called 'climate science' that is easily recognisable, and that climate scientists are likewise as identifiable as say, 'geologists' or 'physical chemists', or 'political scientists'.

My Comment 'Climate science' is a new field indeed, and hardly any members of it have postgraduate degrees with that name. There are few university departments of that name, and fewer still that existed before 2001. Climate scientists basically define themselves as such, and not infrequently deny others the same freedom. My recent antagonist, Dr Andrew Glikson, calls himself a paeloclimate scientist, but dismisses Bob Carter, though they are both actually geologists who use similar data and the same techniques to argue opposite outcomes. Carter is much better published and has high standing in his field. I don't think that there is a single senior figure in Australia, pro or con, who has 'climate science' as his postgraduate background. Flannery is a zoologist, Karoly is a meteorologist, as are Zillman and Kininmonth, Steffen is a chemist, Paltridge is an atmospheric physicist, Lambeck, Carter and Glikson are all geologists, Pitman is a physical geographer, Franks is a hydrologist — and so on. One of the most searching critics was the late Ian Castles, not just a statistician, but the Australian Statistician. The people that Garnaut calls 'sceptics' are, in the cases I know, people of high standing in their own fields. One can't simply dismiss them as know-nothings or shills for Big Oil or whatever.

So the whole area is full of uncertainty. What are we talking about, and who, and why are they there, and what do they know? On the whole, the participants talk past each other. And it is not suprising that in doing so they can disagree.

How many 'climate scientists' are there who have published? The Schneider PNAS paper (my shorthand for it — your Anderegg) says there are 1372, or 908 who have published 20 or more papers. OK. And we consider only the ones who use the 'top' journals. OK. How many 'contrarians', or UE, have published in the top journals? Well, almost none. So that tells us that the UE are greatly outnumbered by the orthodox, so the orthodox must be right. Mmm. I think the Schneider paper is an intellectual embarrassment. To have to write such a paper is indicative of something. Imagine an equivalent in political science, if you can. This is awful stuff. The question is, why did they do it? Why did the NAS think it worth publishing? Does it tell you anything of importance?

Back to numbers. My guess is that the seriously publishing and active 'climate scientists' number about 1500 over the whole world. There is an orthodoxy, and its members greatly outnumber the dissenters who hold academic or civil service jobs. There is a lot of money about for publishing research that is confirming of the orthodoxy, or so it seems. I've looked at paper after paper that seems to have an obligatory paragraph at the beginning or the end that either brings the

published paper into the orthodox fold — whatever it is really about — or, having presented a finding that is at odds with the orthodoxy, says that the result of course does not affect the fact that humans are warming the earth. You saw that only 5% of those polled saw themselves as climate scientists, but 8.5% had published in that field. That tells you something. There is no conspiracy here, just orthodoxy and money.

(2) That the great majority of papers support the orthodoxy.

My Comment

To an extent this has been dealt with. But it's worth noticing that the NIPCC (yes, the Heartland Institute) is collecting and publishing the abstracts of papers published in peer-reviewed journals that don't accord with the orthodoxy, and there are now several hundred of them. Some are even getting into journals that have been 'secure' for the orthodoxy, to the horror of the orthodox (eg Carter, de Freitas and McLean's ENSO paper in GRU). As I say in my Manning Clark House paper (and in the anti-Garnaut piece you will have seen in *Dialogue*, which has an overlap in contents), there is much more real debate now than there was when Garnaut first reported. I expect that the dissenting papers will keep growing in number. In fact, I expect the whole issue to fade slowly.

(3) That the science is therefore settled, or 'in', and we can/must therefore proceed to create new policy.

I sympathise with governments everywhere that have to deal with this issue, as I said in the MCH paper. Things were so much clearer politically three years ago. Now they are not, for reasons I set out. But governments have all this advice, have made deals, and employ all these public servants. There are doubtless MPs and Senators who 'believe' in AGW (Bob Brown, presumably), but there are likely to be many more who know how much uncertainty there is in all of this, how unlikely it is that anything catastrophic will happen within the next hundred years, and how important it is that they do the right thing (whatever that is) while not going out on a limb politically.

Garnaut's Cunningham Lecture was intellectually dishonest, in my opinion (no doubt he can rationalise it), because he must know why things have changed, and it's not because we have suddenly lost long-sighted political leaders. The same trend has happened everywhere in the Western world. It is possible that the alliance with the Greens will end, and that an election will be held once the Labor government fails to survive in the lower House. An Abbott coalition government, whatever else it did, would not proceed with a carbon tax, but it would make soothing noises about 'clean energy' and all the rest of it. In the meantime, we seem to have entered a long cool period, and we may ourselves

experience the kinds of brownouts that the UK will have the next cold winter. Getting to the 'truth' of climate change will require much better data than we presently have. Fortunately, at least so it seems to me, we have plenty of time to find out much more.

I feel that I ought to stop. The main thing for you in my opinion, is to ensure that you introduce the word 'uncertainty' as often as you can!

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