

What drives climate change scepticism?

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Dr Johannes Luetz delivered the first seminar for the Emmanuel Centre this year on the science, politics and theology of climate change. You can view Johannes' slides and lecture notes [here](#).

In summary, Dr Luetz pointed out that global warming is a known and rigorously demonstrated empirical fact, and that the unprecedented quantities of CO₂ being emitted into the atmosphere from the combustion of coal and oil is the known primary cause of this fact. Dr Luetz's presentation was liberally peppered with short videos, graphs, statistics, quotes from authoritative scientific sources, and biblical citations. On the grounds of science, justice concerns for the world's most climate sensitive people, and theological arguments, Dr Luetz sought to persuade us that global warming is the most urgent issue effecting the entire planet and human life in our times. Even so, once the Q&A time started, it was clear that he had not won the climate change sceptics in the audience over.

Dr Luetz is a softly spoken and consolatory man, and when I had a coffee with him after the presentation I asked him if he was surprised by climate change scepticism. He said he always was. As a sociologist, I have to say I do not find it surprising, and we chatted about this for some time. If our way of life is causing climate change, and if a serious response to that problem will require a radical re-working of the operational logic and power dynamics of our shared way of life (growth based, energy hungry, consumer capitalism), then these facts make us feel collectively insecure. Further, those who have most to lose from any radical re-working of 'normality' will resist fundamental change most strongly. And yet... even as I talked with Johannes, I had a niggling hope that maybe we were not killing the planet and that no radical change to our way of life would be required. For I had been chatting with one of the climate change sceptics in the audience.

Let us call this sceptic Jim. I'm very glad Jim came along and voiced his scepticism. If people only attend ECSSRS events when they know they are going to agree with the presenter (or Director), then we are just an echo chamber. That is not what we want. Jim said to me that most of these so-called climate scientists are not real scientists at all; they are social scientists, policy boffins, ecologists, environmental scientists. What would they know about the physics of sunlight and the behaviour of gasses? Jim told me that his hard science relative had explained to him that CO₂ in the atmosphere cannot trap heat. Because I myself am a 'soft' scientist, the only thing I could say to him was 'I will look into it.' So I did. And I did so with just a modicum of hope, for the situation really is very bleak if the consensus voice of climate science is right.

Unfortunately, Jim is wrong. What happens is that when sunlight hits our atmosphere CO₂ and other heat retaining gasses have the property of being transparent to incoming solar radiation, but absorbent of the infrared heat radiation that rises from the earth after the sun light has warmed its surface up. This feature of CO₂ is very good news for us, for without it global temperature averages would be far too cold for life on earth as we know it. This is basic science that has been theoretically understood and empirically verified for well over 100 years now. Naturally occurring greenhouse gasses – mainly CO₂, H₂O, CH₄, N₂O and O₃ – make our climate liveable. However, even though the thermal inertia of the globe's entire climate is very hard to shift and has many natural balancing feedback systems (what a marvel it is!) too much artificial atmospheric blanketing will profoundly disrupt the normal operation of our natural weather systems. And global temperatures are getting inexorably and unprecedentedly warmer; this is a matter of simple empirical fact. If you do not

believe that NASA has highly competent 'hard' scientists working with real data to track the real temperature of the globe, then I cannot see who you would believe.

But sociologically, we *want* to believe that 'business as usual' can keep going indefinitely. We *want* to believe that our normal life-style is not causing catastrophic global disaster for future generations. We *want* to believe that the Great Barrier Reef and other natural wonders are not facing imminent collapse because of our way of life. And then, as individuals we feel powerless to change anything so big. This sense of inwardly focused impotence can readily mutate into outward focused suspicion. For in the modern age of highly specialized academic knowledge, we have to trust experts without being able to test the truth of what they say most of the time. Throw manipulative interest groups using the powerful persuasive arms of the mass media into the equation and we readily feel that there is always the possibility that any consensus view is a dark conspiracy that serves some sinister vested interest. In this context facts themselves can be treated with suspicion. But whilst all these things make sense to me as sociologically normal in our context, I'm afraid, the hard science of the man-made causes of atmospheric global warming is physically and chemically simple, carefully scientifically verified, and well understood.

The message I took away from hearing Dr Luetz was that we must overcome our irrational insecurities about fundamental change. If we can find the political will to change, then, actually, change is not that hard to do; look at Germany. They are the fourth largest economy in the globe, world leaders in renewable energy and are on track to being entirely off CO₂ emitting energy by 2050. There is no reason why clean and renewable energy technology could not be the basis for the next global economy. But, due to thermal inertia, our window of opportunity is rapidly closing. There is no getting around it: the scientific facts of the matter require urgent and deep reform action now.