

Science Heresy

April 2011

Editorial

Is AGW a conspiracy?

Recently a friend asked:

If I read you correctly you are of the opinion that there is a conspiracy to promote AGW science.

My answer is as follows:

No. Definitely not. Dysfunction not conspiracy.

Imagine a priest in mediaeval times who becomes concerned about how the search for money and power had led the Church to abandon or downgrade its core message of saving souls and worshipping God. Such priests did exist and needed to be very careful about speaking out. St Francis was one such priest who was smart enough and sufficiently well connected to survive and bring about change. Many others were not so fortunate.

Does that mean there was a conspiracy of Bishops and Cardinals within the church? Of course not. The Church had become increasingly dysfunctional over time, a disease which afflicts most institutions.

How does this apply to Science?

It is quite similar. The core values of science are those of a liberal, collegiate community in which alternative views are respected and disputes ultimately resolved by experiment and observation. In the late 20th century these values were increasingly eroded in the physical sciences. I became aware of this well before the present climate "debate" got under way. In the field in which I worked, surface gravity

waves, I found that the political structure was hierarchical not collegiate, that observational evidence was irrelevant and that the theories which held sway were those promulgated by one or two Grand Old Men decades earlier. Furthermore, although the researchers in this field purported to be scientists, very few of them had any sort of scientific training, particularly with regard to statistics or experimental physics. They were, almost to a man, applied mathematicians.

Some of the techniques which they use to display and analyze observational data were bizarre and unlikely to reveal any real world relationship which did not fit their preconceived mathematical theories. This was more a cult than a science.

I recently wrote a [paper in paleoclimatology](#) which was rejected because it too failed to satisfy similar cult-like criteria.

Now we come to "AGW Science".

A hypothesis was proposed, by [Arrhenius in 1896](#) that because CO₂ absorbs infrared, atmospheric increases in CO₂ would warm the earth and lower atmosphere and he used various measurements and observations to demonstrate this effect. Unfortunately this was before the role of convection in cooling the atmosphere was understood. The rate of convective cooling with height is known as the "lapse rate". The observed lapse rate can be deduced theoretically from a knowledge of the Gas Equation, thermodynamics and the amount of water vapour in the atmosphere. It is not related to infrared absorption. Arrhenius mentions neither convection nor the lapse rate in his paper.

Apart from Arrhenius, the only other support for this hypothesis comes from massive, numerical, fluid dynamical models which are used to predict future climate. Once again - not an experimental physicist in sight - only applied mathematicians and computer programmers.

Physicists and engineers also use numerical, fluid dynamical models but when they do so, they go to enormous lengths to check and verify their models by a technique called hindcasting. This involves comparing model output with real world observations. That is what towing tanks and wind tunnels are used for.

Very few hindcasting experiments are published by climate modelers, and, when they are, [the models fail these tests](#). Such failures are completely ignored by the modelers who carry on as if nothing had happened.

Just as the mediaeval priest might say "these people are not

Christians", I say "These people are not scientists"; they are not using the methods of science and they do not behave like scientists towards those who hold alternate views.

The Malaise

My friend then asked:

One thing that you didn't address directly was my query about whether the malaise or dysfunction you mention is endemic across the scientific spectrum, or only in areas adjacent to climate matters. If the latter, why is it so?

The malaise tends to effect those areas that have been taken over by applied mathematicians, especially those involving fluid dynamics - climate science, oceanography.

But not meteorology because that is subjected to close public scrutiny.

Theoretical physics and cosmology are also afflicted in my view. There is more observational evidence of alien abductions than there is for worm holes. The evidence for alien abductions may be anecdotal and of poor quality, but at least there is *some* observational evidence.

Why is it so?

It is so because the [scientific method](#) has been abandoned.

Molecular biology is going ahead in leaps and bounds thanks to the strong empirical tradition in the live sciences: medicine, pharmacology and so on. They use statistical methods and at-arms-length experimenters to confirm or refute findings.

A good rule of thumb is that if non-researchers (e.g. doctors, engineers etc.) use it, it is okay. If not, it is suspect. An example is ocean waves. Offshore and coastal engineers do not use contemporary surface wave theory, they use the US Army Corp of Engineers Manual or their own measurements.

The great strength of the scientific method is that worthless theories are rapidly discarded. When the scientific method is abandoned, as with [surface gravity waves](#), the field becomes sterile because new ideas cannot displace established dogma.

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