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COMMUNICATING SCIENCE



Introduction

On February 3 2010, while being the Crawford Miller (Oxford-Australia) Visiting Research Fellow at St Cross College University of Oxford, I was able to attend the Commonwealth Partnership for Technology Management (CPTM) Smart Partners Hub meeting in London.

The meeting was on “Smart Partnership, Climate Change and Science”. I was asked to say a few words on the state of the Australian debate.

That statement was based on a short aide memoire I had prepared for The Club of Rome . A summary of the total meeting has published by CPTM .

The purpose of this note is to amplify a few comments I made in the context of reporting on the Australian climate change debate: the problem of communicating science.

✓ Science and the Media

I am not a scientist and so I look at the science profession from the outside – that of being, among other things, a foreign affairs presenter on Australian television and radio. It is evident that the science profession is losing the battle for hearts and minds when it comes to the climate change debate.

Welsh physicist Sir John Houghton has been quoted as saying something similar. He told BBC Wales on February 12 2010 that most scientists were now in a “PR war” with [climate change] sceptics: “We are in a way and we’re losing that war because we’re not good at PR. Your average scientist is not a good PR person because he wants to get on with his science”.

This is not necessarily a new issue. Walter Isaacson, former managing editor of Time magazine, has produced a large biography of Albert Einstein. After his work on Relativity, Einstein became a very famous scientist. He became a trend-setter: “In the current celebrity-soaked age, it is hard to recall the extent to which, a century ago, proper people recoiled from publicity and disdained those who garnered it. Especially in the realm of science, focussing on the personal

seemed discordant” . He became the world’s most famous scientist – but his fame got him into trouble with other scientists!

In May 1959 another dispute erupted: CP Snow (1905-80), a celebrated novelist with a science background from Cambridge, spoke about “The Two Cultures and the Scientific Revolution” (annual Rede Lecture, University of Cambridge)

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- This will published in due course by the European Support Centre of The Club of Rome: www.clubofrome.at
 - <http://www.cptm.org>
 - “Climate Change Scientists Losing ‘PR War’ to Vested Interests”, reprinted: Common Dreams: <http://www.commondreams.org/print/52766>
 - Walter Isaacson [Einstein: His Life and Universe](#), New York: Simon & Schuster, 2007, p 269.

. He argued that there was then a gap between scientists and “literary intellectuals”: scientists didn’t read Charles Dickens and humanities professors didn’t know the Second Law of Thermodynamics. Snow warned that many key decisions in public life were being made by people without much knowledge of science. The situation probably has not improved in the past half century.

✓ Communicating Science

One of the best books I have encountered recently on this problem of how to communicate science is by Randy Olson Don’t be Such a Scientist: Talking Substance in an Age of Style . Olson was a science academic who changed life in mid-career and went to California to learn movie-making (he now specializes in science and environmental movies). One of his theatre lecturers told him “not to be such a scientist” and the reprimand stayed with him.

I have found his book helpful to understand, how in effect the Australian Labor Party Government headed by Kevin Rudd could move from winning an election in November 2007 partly on the climate change issue, to losing the public debate over climate change in two years (with the then Leader of the Opposition, Malcolm Turnbull, losing his own position to a rebellion within his own party and for him to become the world’s first party leader to lose his position because he was supporter of taking action against climate change; he has been replaced by a climate change “sceptic”)

Olson argues that there are four “layers” of communication, rather like a pyramid, with the layers getting broader as they move towards to the base. At the top of the pyramid is the

“mind” – which is where most scientists spend most of their time. They communicate learnedly with each other in a careful, heavily foot-noted style.

The next layer down is the “heart”: the locus of love.

The third layer is the “gut”: locus of fear.

The base of the pyramid are the “reproductive organs”, which is why so many people, companies and organizations use romance etc for marketing – it is the easiest way to reach the broadest number of people whatever is being sold: cars, chocolate, clothes etc.

Applying the top three layers of the Olson model to the Australian climate change debate, we can see how the model helps explain the change within Australia.

In the years 1996-2007, the Australian Prime Minister was the conservative John Howard. Australia had been committed to the Kyoto Protocol process and for a while it seemed that the incoming Howard Government would continue that process. But then, under pressure from US President George W Bush, Howard suddenly announced that Australia would not proceed with the Kyoto Protocol. The US and Australia were the two developed countries to stand outside the process.

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- Robert Whelan “Fifty years on, CP Snow’s ‘Two Cultures’ are United in Desperation” [The Daily Telegraph](#) (London), May 5 2009
 - Washington DC: Island Press, 2009

Howard was lobbied by some of his more moderate colleagues, such as his eventual (albeit temporary) successor Malcolm Turnbull, to accept the Protocol and so negate the support going to the Opposition Labor Party headed by Kevin Rudd. Howard remained stubborn to the end and he lost the November 2007 election (and even his own seat – only the second time since federation in 1901 that a prime minister had been rejected by his own constituency).

Rudd’s Labor Party had campaigned on many issues. The climate change one had struck a chord with most of the electorate (including moderate Liberals). Rudd (in Olson’s model) reminded Australians of their love of the Great Barrier Reef (the “world largest living object”) – the “heart” - and the fear of the risk that it could be destroyed by climate change – the “gut”.

Rudd argued that Australia should act to protect the Great Barrier Reef. This was rather misleading because Australians account for only 1 or 2 per cent of the total global emissions and so no matter how good Australia’s climate change record might be, Australian actions alone could not save the reef. However, this was overlooked by commentators in the interests of securing the dramatic Labor victory in November 2007.

But then Kevin Rudd as Prime Minister moved up Olson’s model. He left the “heart” and “gut” and he started to read out speeches written in the “head” style by public servants. He – and

his colleagues – failed to communicate with the same skill they had had before the election to the “heart” and “gut”.

Meanwhile, the conservative Opposition initially disowned the Howard climate change policy and endorsed the Rudd Government’s December 2007 ratification of the Kyoto Protocol – the first time that the first action of a new Australian Government was to ratify a treaty.

But the climate change sceptics then got to work – as per Olson’s model – on the “heart” and “gut”. They argued that the proposed Rudd emissions trading system (ETS) would really be an “extra tax system” (appealing to the “gut” and fear of a new tax). They warned that climate change policies would cost jobs (“heart” and the love of being employed). In late 2009, the sceptics within the conservative Opposition party rebelled against their moderate leader Malcolm Turnbull and replaced him with one of their own (Tony Abbott).

As at early 2010, the Rudd Government has no new emission trading system, little chance of securing any ambitious climate change measures, and a declining popular interest in the subject of climate change. It is unlikely on current showing that Rudd will make as much fuss of climate change in the 2010 election as he did in 2007.

✓ New Thinking on Communication

Being smart is not much use if that cannot be communicated. The lesson of the Olson book is that much more attention needs to be given to the basics of communication.

A good lesson here is from the oil industry. The industry distinguishes between “upstream” and “downstream” activities. The upstream activities relate to finding oil and drilling for it. The downstream activities relate to the distribution out to the consumers. Science needs to pay more attention to the “downstream” activities. The Olson book provides some ideas.

Another good example comes from nurse Georgia Sadler . She wanted to educate women on certain health issues. She did the right thing – speaking at religious institutions, community organizations etc. But the women who came to hear her were already aware of the issues. How could she reach the women who were not coming to her presentations?

Sadler used creative thinking. An American woman has a more intimate relationship with her hair stylist than with virtually anyone else. She realized that a hairdressing salon would provide women with a relaxed atmosphere in which to hear new ideas. She sought advice on how to educate hairdressers on how they could in turn inform their clients about the health issues. She then created a highly successful education programme.



✓ Conclusion

The conclusion is, then, we need to find more innovative ways of communicating science to the general public. There are certainly plenty of “lateral thinking” ideas available on communication. It just needs a more innovative mobilization of those techniques. Perhaps this could be a CPTM “Smart Partnership” project?

Keith Suter

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- See: Malcolm Caldwell [The Tipping Point: How Little Things Can Make a Big Difference](#), London: Abacus, 2000, pp 253-55