

WHY ARE PEOPLE STILL SCEPTICAL ABOUT CLIMATE CHANGE?

A majority of people accept that the climate is changing and that human activity is, at least in part, to blame. But some people are still sceptical about the reality and seriousness of climate change - despite the fact that the scientific evidence is so overwhelming. Why?

Why are some people still sceptical in spite of this majority (Lee et al, 2015) and how can climate scepticism be countered? These are questions that motivate a great deal of climate change communication.

It is natural to assume that if people do not accept the science of climate change, it is because they do not understand it, or perhaps need to know more about it. Certainly it is true that someone who knows very little about climate change is unlikely to care a great deal about its consequences. So it is important that the facts about climate change are widely known and readily available. To this effect, several comprehensive summaries of the key facts and figures of climate change are available, including the website [Skeptical Science](#), which describes itself as “Explaining climate change science & rebutting global warming misinformation”. The British newspaper [The Guardian](#) offers a very readable series of answers to ‘frequently asked questions’ about climate change. And the website [Real Climate](#), run by working climate scientists, contains a great deal of (sometimes very technical) information about the science of climate change.

Limitations of facts and figures

But while dispelling myths about climate change is a valuable public service to offer, ***the truth about climate scepticism is that it is not just a dispute over the science.*** Accurate factual information has been available for anyone who has wanted to find it for a long time. And yet some people say they are unconvinced that climate change is actually happening - or express more uncertainty than scientists do about the seriousness of the problem.

Climate change is not the first example of a topic where politicians or campaigners have expressed frustration or surprise that members of the public don’t seem to ‘get’ the science. Public opinion often turns against a new technology or development even if the science behind it is sound. Researchers who study public attitudes to science used to think that providing more facts and figures - increasing knowledge - was the way to improve public engagement with science. This approach is known as the ‘deficit model’ of science communication: it

was assumed that opposition to a particular scientific development was based on a deficit of knowledge (Irwin & Wynne, 1996).

However, it soon became clear that many of the arguments about 'scientific' controversies (e.g. disputes over GM crops) were not really about 'science' at all, and climate change is no exception (see e.g. Pidgeon, 2012; Hoffman, 2011).

Worldviews, ideologies and attitudes

Social scientists have started building up a picture of the sort of people who are likely to be climate sceptics. While the predictors of climate scepticism (e.g. old age, materialistic values, individualistic worldview) vary from country to country, **several predictors have been shown to be consistent cross-nationally** (Tranter & Booth, 2015). For one, men are more likely to be sceptical about climate change than women. Similarly, people who affiliate themselves with conservative political values are more likely than those who do not, and the same holds for people who distrust the government and express low levels of concern for the environment (Kahan, 2012; Painter, 2011; Kahan, Braman & Jenkins-Smith, 2010). The fact that US presidential-hopeful Donald Trump flat out denies that climate change is happening is a good example. He was not driven by his rejection of climate change science to become Republican – his conservative views have coloured his interpretation of the science, which

he sees as threatening to his ideology.

So what climate sceptics really oppose is not climate science but what they see as its policy implications.

Dan Kahan and his colleagues at Yale University (Yale Cultural Cognition Project) have shown that people's positions about a whole range of scientific topics tend to be driven by their political ideologies and worldviews (Kahan, Braman & Jenkins-Smith, 2010; cf. Corry & Jørgensen, 2015). So it is no surprise that apparently neutral, uncontroversial scientific reports (like those published by the Intergovernmental Panel on Climate Change) have acted as a lightning rod for disagreement. For an individual who supports co-ordinated international action to tackle climate change, what could be more compelling than a consensus statement from an international body of independent scientists? For someone inclined to perceive international regulations as a threat to trade, industry, and personal freedoms, the same statement is likely to set alarm bells ringing. The facts are the same in both cases; the interpretation very different.

Because mainstream climate policies tend to involve things like the regulation of polluting industries, or restrictions on household or individual behaviours, they conflict with an individualistic or conservative worldview. And this is the single biggest reason why scepticism about climate change persists.

When people with opposing attitudes

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Pouring facts into people's cultural and social filters does not necessarily produce consensus – and it can even cause attitudes to polarise

towards climate change are given news reports about climate change to read, they evaluate the evidence in a very different way

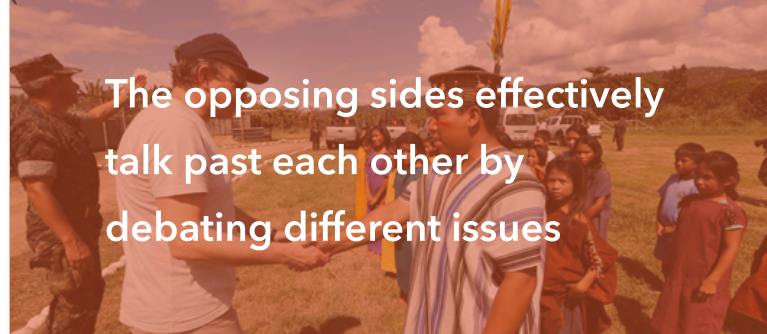
(Corner, Whitmarsh & Xenias, 2012). Those who accept the science of climate change rate the pro-climate change accounts as convincing and reliable, whereas climate sceptics deem them as unconvincing and unreliable. This is known as the 'biased assimilation' of information, and several decades of social psychological research have shown that on any number of topics - from capital punishment, to gun control, to nanotechnologies - people squeeze new evidence through powerful social and cultural filters. Pouring facts into this filter system does not necessarily produce consensus - and it can even cause attitudes to polarise.

Conversation about politics, not debate over science

Climate change communicators thus need to perform their jobs skillfully if they are to reduce and overcome climate change scepticism.

Again, *understanding that climate change scepticism will not be overcome by a more forceful presentation of the science is a critical first step*. Of course members of the public need to know about the science. It is therefore crucial to use the most accessible methods of clearly and concisely explaining climate science - for example emphasising that there is a 97% consensus among climate scientists (van der Linden et al, 2015), and using simple, non-technical language. But for those members of the public who have already heard all they need to hear and chosen to reject it, explaining the science to them more loudly is unlikely to do much good.

Rather, communicators need to bring the real cause of disagreement out into the open, *separate the science from the politics*



The opposing sides effectively talk past each other by debating different issues

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(Hulme, 2009; Hoffman, 2011) and make clear that although the science tells us that climate change is happening, and what the causes are, it doesn't tell us how to respond. These are decisions to make as citizens - and so they should be the subject of debate. Providing opportunities for people to deliberate with each other about responses allows the reasons for disagreement to come to the fore. If these reasons are based on values, cultural worldviews or ideology, then it makes sense to get them out into the open rather than obscuring the disagreements by fighting political battles using the language of climate science (Corry & Jørgensen, 2015).

Finding ways to talk about climate change and climate policies that resonate with - rather than threaten - the values and worldviews that underpin scepticism about climate change is vital. However, in doing so it is important not to produce a one-dimensional stereotype of climate change scepticism: researchers have identified different types of sceptics (van Resburg, 2015; Poortinga et al, 2011), some of whom may be interested in deeper discussion about the actual climate science, some of whom aren't. Recognizing that *there is nothing to be gained by demonising people* - even those who seem to hold a view completely at odds with the scientific evidence - is equally important. Labelling someone a 'denier' is probably not the best way to begin a conversation (Howarth & Sharman, 2015).

Andrew Hoffman at the University of Michigan has looked into what he calls the 'logic schism' in the climate debate, in which the opposing sides effectively talk past each other by debating essentially different issues, only seeking information supportive of their

own arguments, viewing each other with suspicion, and demonising opponents. As a result, powerful enemy narratives develop, rendering cooperative decision making and debate virtually impossible (Hoffman, 2011; see also Marshall, 2014).

In summary, scepticism about climate change has much more to do with values, worldviews and political beliefs than it does with a lack of understanding of the science. This is the crucial first step to understanding

how to more effectively engage with climate change sceptics.

For detailed evidence-based advice and guidance on how to frame messages according to diverse public values, and on how to engage more effectively with politically-motivated climate change scepticism, read the Climate Outreach guide to Values and Frames and resources on engaging with the centre-right.

References

- Corner, A., Whitmarsh, L. & Xenias, D. (2012). Uncertainty, scepticism and attitudes towards climate change: biased assimilation and attitude polarisation. *Climatic Change* 114 (3) 463-478.
- Corry, O. & Jørgensen, D. (2015). Beyond 'deniers' and 'believers': Towards a map of the politics of climate change. *Global Environmental Change* 32 165-174.
- Hoffman, A.J. (2011). Talking Past Each Other? Cultural Framing of Skeptical and Convinced Logics in the Climate Change Debate. *Organization & Environment* 24 (1) 3-33.
- Hulme, M. (2009). *Why we disagree about climate change: Understanding controversy, inaction and opportunity*. Cambridge: Cambridge University Press.
- Irwin, A. & Wynne, B. (1996). (Eds). *Misunderstanding science? The public reconstruction of science and technology*. Cambridge, MA: Cambridge University Press.
- Kahan, D.M. (2012). Why we are poles apart on climate change. *Nature* 488 (7411) p. 255.
- Kahan, D.M., Braman, D. & Jenkins-Smith, H. (2010). Cultural cognition of scientific consensus. *Cultural Cognition Project Working Paper No. 77*
- Lee, T.M., Markowitz, E.M., Howe, P.D., Ko, C. & Leiserowitz, A.A. (2015). Predictors of public climate change awareness and risk perception around the world. *Nature Climate Change* 5 (July 2015).
- Marshall, G. (2014). *Don't Even Think About It: Why Our Brains are Wired to Ignore Climate Change*. New York: Bloomsbury USA.
- Painter, J. (2011). *Poles Apart: The international reporting of climate scepticism*. Oxford: Reuters Institute for the Study of Journalism.
- Pidgeon, N. (2012). Public understanding of, and attitudes to, climate change – UK and international perspectives and policy. *Climate Policy* 12 (sup01) S85-S106.
- Poortinga, W., Capstick, S., Whitmarsh, L., Pidgeon, N. & Spence, A. (2011). Uncertain climate: An investigation into public scepticism about anthropogenic climate change. *Global Environmental Change* 21 (3) 1015-1024.
- Howarth, C. & Sharman, A. (2015). Labeling opinions in the climate debate: a critical review. *WIREs Climate Change* 6 (2) 239-254.
- Tranter, B. & Booth, K. (2015). Scepticism in a changing climate – A cross-national study. *Global Environmental Change* 33 154-164.
- van Resburg, W. (2015). Climate Change Scepticism: A Conceptual Re-Evaluation. *SAGE Open Apr-Jun 2015* 1-13.

About Climate Outreach

Climate Outreach (formerly COIN) is a charity focused on building cross-societal acceptance of the need to tackle climate change. We have over 10 years of experience helping our partners to talk and think about climate change in ways that reflect their individual values, interests and ways of seeing the world. We work with a wide range of partners including central, regional and local governments, charities, trades unions, business and faith organisations.

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