

Environmental Footprint Group – meeting of 13 October 2014, review of the book by George Marshall, *Don't even talk about it; why our brains are wired to ignore climate change*

First sketch – the silence

Improvised dialogue

Two people are sitting side by side waiting for a meeting to start. The chairs are in a circle. They start chatting. Gradually everyone else stops talking and focuses on this couple. They start discussing more controversial topics - UFOs, astrology, why not to have a child. Nothing too extreme, but enough to surprise the interlocutor, who then asks interested questions. The aim is to establish that they are both happy to discuss anything, even if they consider it strange. Then one of them says how worried he/she is about the future of the planet because of the threat of climate change. There is a silence. Then the other one changes the subject to something completely banal. They become aware that the others are waiting for them to stop talking so that the meeting can start.

Talking about it

One of Marshall's main points in his book *Don't even talk about it; why our brains are wired to ignore climate change* is that there is a kind of social taboo that prevents people talking about climate change. He has experienced this himself, in both Britain and the US.

According to a survey in the US, a quarter of people have never talked about it.

We are a self-selected group that have come here deliberately to talk about climate change, but we may have experienced problems in conversations outside this group. There are lots of reasons why climate change is difficult to talk about, some of them to do with the nature of climate change itself, and some of them to do with the way people's minds work.

People's minds

Marshall cites various sociological and psychological research, and does his own research, showing a number of reasons why people don't want to talk about climate change, still less do anything about it.

People follow cues from others around them and don't act if the others are doing nothing, even when someone is being attacked in front of them (the bystander effect). They surround themselves with like-minded people, and take more notice of their peers than of experts or leaders.

This can lead to a 'false consensus' where people think their own view is more widespread than it actually is. They can also think the opposition is more numerous than it actually is, if the majority keep quiet because they fear that they are a minority.

We have what he calls a 'finite pool' of worry. There are too many things that we could worry about, so people focus on things that are likely to happen to them personally, and soon.

Surprisingly though, Marshall found that people who have been affected by extreme weather events are even less likely than others to want to talk about climate change – because they want to retreat to what is familiar and comforting.

People interpret events to support their own beliefs, and see what they want to see. Another factor is optimism bias, when people think that others will suffer worse effects than they do.

Naturally I have also exercised my own biases in talking about this book, in the parts of it I have selected to highlight and the ones I have decided to leave out.

Nature of climate change

Climate change itself Marshall describes as 'the ultimate challenge to our ability to make sense of the world around us'. and as a 'wicked problem'. This is a technical term formulated in 1973 by urban planners in California.

Tame problems have defined causes, objectives and outputs. A wicked problem is multifaceted, incomplete, and constantly changing. There is no point at which one has enough information to make decisions, and it keeps evolving according to the solutions developed to solve it. People – scientists, politicians, industrialists, statisticians etc come at it from different angles and tend to shape the problem in their own image.

Illustration – North Korea

An office in the White House. Improvised dialogue, American accents

Presidential Aide: Mr President, I have the latest intelligence report from North Korea. It doesn't look good.

North Korea is threatening to increase its carbon emissions in a deliberate attempt to make the climate even warmer.

President: This is a blatant act of aggression! The United States will not stand for this. We must take firm action to counter this threat. We will increase sanctions. We will deploy the sixth fleet to the area ... (etc)

That's an example of a tame problem, with an identifiable cause and objective. One of the problems with action against climate change is that there is no identifiable external enemy. Some campaigners have sought to brand certain industries, or industrialists, as the enemy. But everyone contributes to carbon emissions. We apply to climate change the psychological tools we have evolved to cope with previous challenges, which generally involved identifiable enemies and sudden changes to present circumstances. But climate change is a future threat, and doesn't feel dangerous at the moment.

Political issue

Marshall talks a lot about climate change as a political issue in the US – the Tea Party and other right-wingers think that the Government is using climate change as a means of increasing State control, and the way environmentalists talk about climate change is off-putting to them. In fact environmentalism seems to be a dirty word in a lot of the US.

The science of climate change has become infected with social signifiers – a certain group of people want action on climate change, so they face opposition from those with different views from theirs on other matters, like gun control for instance. Attitudes to climate change fit into a larger matrix of values, politics and lifestyles, and as people seek to distance themselves from those with different political views, differences become entrenched, and the focus is on the battle against the opposing group rather than action on climate change. Some scientists have encountered considerable hostility just for reporting their findings.

Discussion Chris Adams talked about the political situation in the US, and other people commented.

Riding the elephant

I first heard about this book when Evelyn Sweerts gave me a photocopy of an article that mentioned it. The article was called 'Riding the elephant'. I've never ridden an elephant but I've ridden a lot of horses and the principles are much the same.

'Riding the elephant' is a metaphor for engaging our emotional as well as analytical brains, or hearts and minds if you prefer.

The rider represents the analytical brain, who knows intellectually the reasons for doing something and can make plans for the future, and the elephant, or horse, is the emotions which supply the power to actually do it. The thing about horses is, however much you train it, it's still a horse, with instincts that will make it act a certain way, and the rider has to be aware of this and try to work with rather than against these instincts. If you're going to get anywhere there has to be a dialogue between the two and they have to come to an agreement.

Marshall argues that the reason many people are reluctant to do anything or even talk about climate change is because the two aspects of their brains aren't engaged. Many communications about climate change are full of charts and graphs and make no attempt at all to engage the emotional brain.

The emotional brain is anyway not good at dealing with uncertain, long-term threats like climate change.

Stories

Narrative is important in engaging minds and hearts. Stories are how we make sense of the world, how the emotional brain can make sense of the information collected by the rational brain. But it has to be the right kind of narrative.

Rational and well-presented scientific data can lose out against a compelling emotional story. People tend to pay attention to the coherence of the narrative being told, rather than the underlying facts.

Climate change doesn't have a clear cause, effect, perpetrator and motive, which makes it difficult.

Illustration – Bedtime story sketch

Child: Mummy can I have a story before bed?

Mother: Of course darling, I know a good one.

Once upon a time there was a land where the weather was very strange. There were awful heat waves in some parts and in others terrible storms and floods. The oceans were full of jellyfish, and most of the land was too dry to grow anything. Scientists said it was caused by too much carbon dioxide which went into the sky when the grown-ups used energy, and the children of the land would have to live with the horrible consequences.

Child: Mummy, is there a happy ending?

Parent: (*looking out to audience, solemn voice*) It's up to you how the story ends.

That was based on an advert that was on British TV in 2009 before it was withdrawn after complaints. Some of you may have seen it.

It provides various examples of how not to communicate about climate change, and the one I want to talk about is *framing*. Marshall uses this word for the context in which a message is delivered. In the case we've just seen, a message which is based on hard scientific evidence, which is nonetheless contested, is framed as a fairy story.

So although you could argue that it does attempt to engage the emotions, the science is immediately devalued by the frame.

Another example of framing is the London Science Museum climate exhibition, which shows extreme climates in the context of palaeontology. It conveys the message that there has always been climate change, but humans have adapted and coped. The exhibition is funded by the Shell oil company.

Language

Language use is important. Marshall highlights what he calls the 'slippery we', which sounds like a medical condition but means using the word 'we' without defining who exactly is meant. President Obama does this a lot. People who don't consider themselves included in the 'we' group can feel alienated.

Because climate change is a wicked problem, the metaphors we use can frame how we think about it. Calling it, for instance, a ticking bomb, or a fever, will frame it and exclude other ways of looking at it.

Some people are immediately put off by the words 'environmental' or 'ecological'. People are much more willing to pay a 'contribution' or 'offset' than a 'tax'.

And it's unfortunate that a 'high-carbon lifestyle' makes you think of champagne in a penthouse, while a 'low-carbon lifestyle' sounds more like drinking cold tea in a dank basement.

Even the word 'lifestyle' is alienating to some people.

Good communicators

Another important point is people's trust in the messenger. Most scientists are not good communicators, particularly in television debates against professional communicators.

An example of good communication from a seemingly trustworthy source is Greg Craven's video (see <http://www.youtube.com/watch?v=zORv8wwiadQ>), which you may have seen. It's a modern version of Pascal's wager, and concludes that we should take climate change seriously because if you gain, you gain all, and if you lose, you lose nothing. The point Marshall makes is that Craven, who is a high-school science teacher, comes across not as an expert with complicated graphs and pie charts, but as an ordinary bloke talking sense.

Marshall also has a dig at environmentalists who fly long distances to conferences about the dangers of carbon emissions.

Symbols

We also have to be wary of the symbols used to convey the climate change message. Some of these are not very helpful. The impression that climate change will mainly affect people a long way away from us and far in the future can be reinforced by pictures of polar bears or starving Africans.

Examples that Marshall gives are:

Earth hour – turning off the lights is not a helpful symbol.

The Greenpeace polar bear symbol focuses on an animal rather than a human, in a distant habitat with lots of snow and ice.

Sustainia (see <http://www.sustainia.me/>) – a Copenhagen-based initiative that promotes technological solutions. I looked at their website and thought 'what's not to like?' It introduces itself as follows

'By focusing on possibilities and benefits, Sustainia is reshaping a new narrative of optimism and hope for a sustainable future that seeks to inspire and motivate instead of scare people with gloom and doomsday scenarios'

I thought Marshall was being a bit hard on Sustainia. He is scathing about it because he says it turns down the volume of the threat, promotes an aspirational, high-consumption lifestyle and ignores the billions of people who are already living in extreme poverty and whose livelihoods could be destroyed by just a slight increase in global temperatures.

The Live Earth pop concert in 2007 sought to increase environmental awareness through entertainment, but it missed the mark because it didn't have a unifying narrative. The short bursts of information about petty lifestyle changes in between the acts were just an annoying interruption, and it failed to build a movement for change.

We are responsible

In the early part of this century, and still today, there was a focus on our individual responsibility, and what we could do ourselves to limit carbon emissions. Indeed we have spent quite a lot of time at these meetings, particularly the early ones, looking at our own carbon footprints and how to reduce them. Communicators hope to use the power of social norms to steer people away from high-carbon behaviours.

Illustration: The Diet

A café. Improvised dialogue along these lines

A man and a woman sit down at a table.

Man: (to waiter) I'll have an espresso please.

Woman: I'll have a large hot chocolate with whipped cream – and one of your big chocolate fudge brownies please.

Man: But I thought you were on a diet!

Woman: I am, but I've been really good this week, nothing but salad for lunch and no alcohol, so I think I deserve a little treat.

Man: After this I think I'll drop by the travel agent and see if I can book a flight to Thailand for our holiday.

Woman: But what about the carbon emissions?

Man: Well I've been really good all this year, not used the car nearly so much, taken the bus everywhere possible, so I think I deserve one decent flight.

Research has shown, unfortunately, that this kind of 'virtuous' behaviour can often be counter-productive, as people use this virtuousness as 'licence' to indulge in even more carbon-heavy lifestyles. And not just individuals. Canada, Ireland and Australia promoted personal carbon-saving campaigns and at the same time ripped up their Kyoto Protocol commitments.

Let's look at some more international action

Illustration: TV problem-solving

A TV show.

Host: Welcome to What's your problem? where we have a pretty good track record of solving those tricky problems you come up with. Can we have the first problem please?

First guest: My problem is the arms race between the US and the USSR. We both keep manufacturing more and more sophisticated weapons. There are far more than we need and it's using up a lot of resources.

Host: The answer is, starting now, in 1982, there must be negotiations between the two sides to reduce these weapons, leading to a Strategic Arms Reduction Treaty. You'll need targets and timetables for mutually verifiable reductions. Next problem please.

Second guest: My problem is thinning of the ozone layer, which protects us from some of the sun's rays that would otherwise be harmful and increase the risk of skin cancer.

Host: What's causing this, and when is it happening?

Second guest: Chemicals known as CFCs, used in fridges and aerosol spray cans. It was first noticed in the 1970s. Some countries have taken action but now, in the 1980s, it is time for international action to stop this happening.

Host: The answer is business-led technological innovation and the implementation of a market-based system of emissions permits enforced by binding international law. I will call it the 1987 Montreal Protocol.

Second guest: That's brilliant! Thank you.

Host: And the next problem please

Third guest: My problem is acid rain, which is killing trees.

Host: What's causing this, and when is it happening?

Third guest: It's happening now, in the late 1980s. You can see dead trees in the United States and other countries. It's caused by industries burning fossil fuels, which releases sulphur dioxide and nitrogen oxides into the atmosphere.

Host: Then we must stop this. Technology and engineering can install scrubbers in smokestacks to remove these chemicals before they get into the atmosphere. Hey, I have another idea. We can give industries permits to release a certain, limited amount of pollution into the atmosphere, and if they manage to reduce their emissions further, they can sell the rest of the permit to other industries.

Third guest: That's such a good idea!

Host: Are there any more problems?

Fourth guest: My problem is climate change.

Host: What's that, what's causing it, when is it happening?

Fourth guest: It's that, er, carbon dioxide is getting into the atmosphere from everyone burning fossil fuels and there's so much of it that the climate is getting warmer, well at the moment in 2014 some icebergs are melting and there are hurricanes and stuff. Scientists disagree about the details but they think that in the future, maybe after 2050, the situation will be really bad and there will be even more hurricanes and the sea level will have risen so a lot of low-lying countries will have disappeared and two thirds of the world's major cities will be under water and there will be deserts everywhere and 40% of plants and animals will be extinct and drinking water will be scarce and there will be hardly anywhere to grow food...

Host (*has been shuffling papers and looking at his watch and hasn't really heard the last bit*):

Well, I think we can probably do something based on the measures that have been so successful for other problems – an international treaty, a cap on emissions, carbon trading, maybe the engineers can come up with some clever fixes. And that's all we have time for today.

Because the international action on the ozone layer and acid rain had actually been quite successful, it was natural that people looked to the same kind of emissions-limiting treaty to tackle climate change. But this framed climate change as a purely environmental problem and left out other aspects such as health, social rights, energy etc.

And because it was seen as a problem of gas emissions, like the previous two, the focus was on limiting emissions and didn't do anything about the fossil fuels that were causing the emissions in the first place. As Marshall puts it, they treated it as a tailpipe problem when they should have been looking at the wellhead. Because of the way the problem was framed, controls on production weren't even debated. It was a missed opportunity which he sees as a fatal mistake.

So governments are trying to limit emissions and at the same time granting permits to industry to drill for oil and frack for gas all over the place.

The 2009 Copenhagen Conference was another disappointment. Its chairman had warned in advance that it was essential for it to set a deadline for action. But it didn't, although there was much talk of 'setting the stage' for action in 2015. Comedian Marcus Brigstocke summed it up, channelling Dr Seuss:

*So they blew it, and wasted the greatest of chances,
Instead they all frolicked in diplomat dances,
And decided decisively, right there and then,
The best way to solve it's to meet up again.
And decide on a future that's greener and greater,
Not with action right now, but with something else later.*

There are other examples in the book of action by campaigning groups, scientists, governments or international bodies that didn't work for various reasons. But I want to move on now to what Marshall thinks has more chance of working, and this is where churches come in.

Churches can help

One of the later chapters in the book is called 'What the Green Team can learn from the God Squad'. Marshall does not start from a religious background. He says he 'respects, but does not share' religious views. He points out various parallels between the environmental movement and churches. Both require people to accept that something is true on the authority of the communicator, are concerned with events that are distant in time and place, and challenge our normal experience and our assumptions about the world. In the United States, 5% of people are members of an environmental organisation, but 70% identify with a religious faith. Churches have been involved in previous social justice movements – anti-slavery, civil rights, anti-apartheid etc.

Marshall is talking mainly about Christianity, and is particularly impressed by an American Evangelical church that he visited, but he thinks all the main religions provide examples of good communication. The Evangelical service he went to is attended by forty-five thousand people every week, and six times that number watch it on TV or the Internet, which is more than most climate change rallies can muster. He describes churches as a real-time experiment in what moves, excites and persuades people, using narrative, image and enactment. His is not the only voice urging the involvement of churches in this area. Professor Sir Partha Dasgupta, a Cambridge economist, and Archbishop Desmond Tutu have recently called for churches to get involved in what is increasingly being recognised as a problem of morality and ethics.

There are four particular areas where Marshall thinks the anti-climate-change movement can learn from religions.

Firstly, in their teaching and practice they engage both parts of the brain – both hearts and minds. Religious people have always understood that there is no clear divide between our rational and our emotional brains, but that they are in constant dialogue.

Secondly, religions embody non-negotiable sacred values. These are embedded throughout culture, not just in churches, for example protecting children is a pretty universal non-negotiable sacred value. Action on climate change should aspire to become another non-negotiable sacred value.

Thirdly, religions recognise the importance of personal contacts and relationships. As Marshall points out, evangelical outreach always directs people to make personal contact through their local church. Outreach around climate change invariably directs people to websites where they can find information. Churches provide the opportunity of a moment of choice (or conversion) when an individual can choose to embrace a new way of life, and the support of a group of people if they then experience doubts and struggles while adjusting to a new way of thinking about the world.

Fourthly, forgiveness. The climate change narrative has no language of forgiveness. It makes people feel guilty. They either reject the whole thing or generate their own self-forgiveness (as we saw in the scene in the café). According to the Stanford University Forgiveness Project, it's not about excusing or pardoning, but about the process of transforming destructive feelings of guilt, blame and anger into positive emotions such as empathy and reconstruction. The climate change movement needs this if it's not going to descend into a divisive scenario with people blaming each other for past and present carbon emissions.

Chris Adams talked about the Mennonite Church and its attitude to climate change.

Marshall's final chapter is entitled 'Four Degrees' and underlines the importance of the rest of the book in the light of scientists' predictions that a temperature rise of four degrees, rather than two, is quite likely and will have catastrophic consequences.

The way forward, Marshall concludes, is for action on climate change to become a unifying rather than divisive force. He lists about 50 ideas of how to proceed from here, most of which are concerned with how to talk to those who don't share our views – respecting others' opinions, building a narrative of cooperation, not using off-putting jargon, etc.

I thought it might be interesting for us to discuss some of his other ideas for action. Such as:

Relate solutions to climate change to sources of happiness and the connections we feel with friends, neighbours and colleagues.

Emphasize that action on climate change makes us proud to be who we are, and reinforce this with social cues that people like ourselves are concerned and taking action.

Create communities of shared conviction.

Create moments of commitment and frame climate change as an informed choice between desirable and catastrophic outcomes, in which people can understand that inaction is itself a choice in favour of severe climate change.

Mourn the end of the fossil fuels age.

For a summary of the ensuing discussion, see the meeting report