Climate Change
Communication
Advisory Group

Communicating climate change to mass public audiences

Working Document
September 2010

Communicating climate change to mass public audiences

This short advisory paper collates a set of recommendations about how best to shape mass public communications aimed at increasing concern about climate change and motivating commensurate behavioural changes.

Its focus is not upon motivating small private-sphere behavioural changes on a piece-meal basis. Rather, it marshals evidence about how best to motivate the ambitious and systemic behavioural change that is necessary – including, crucially, greater public engagement with the policy process (through, for example, lobbying decision-makers and elected representatives, or participating in demonstrations), as well as major lifestyle changes.

Political leaders themselves have drawn attention to the imperative for more vocal public pressure to create the 'political space' for them to enact more ambitious policy interventions.[1] While this paper does not dismiss the value of individuals making small private-sphere behavioural changes (for example, adopting simple domestic energy efficiency measures) it is clear that such behaviours do not, in themselves, represent a proportional response to the challenge of climate change. As David MacKay, Chief Scientific Advisor to the UK Department of Energy and Climate change writes: "Don't be distracted by the myth that 'every little helps'. If everyone does a little, we'll achieve only a little" (MacKay, 2008).

The task of campaigners and communicators from government, business and non-governmental organisations must therefore be to motivate both (i) widespread adoption of *ambitious* private-sphere behavioural changes; and (ii) widespread acceptance of – and indeed active demand for – ambitious new policy interventions.

Current public communication campaigns, as orchestrated by government, business and non-governmental organisations, are not achieving these changes. This paper asks: how should such communications be designed if they are to have optimal impact in motivating these changes? The response to this question will require fundamental changes in the ways that many climate change communication campaigns are currently devised and implemented.

This advisory paper offers a list of principles that could be used to enhance the quality of communication around climate change communications. The authors are each engaged in continuously sifting the evidence from a range of sub-disciplines within psychology, and reflecting on the implications of this for improving climate change communications. Some of the organisations that we represent have themselves at times adopted approaches which we have both learnt from and critique in this paper – so some of us have first hand experience of the need for on-going improvement in the strategies that we deploy.

The changes we advocate will be challenging to enact – and will require vision and leadership on the part of the organisations adopting them. But without such vision and leadership, we do not believe that public communication campaigns on climate change will create the necessary behavioural changes – indeed, there is a profound risk that many of today's campaigns will actually prove counter-productive.

Seven Principles

1. Move Beyond Social Marketing

We believe that too little attention is paid to the understanding that psychologists bring to strategies for motivating change, whilst undue faith is often placed in the application of marketing strategies to 'sell' behavioural changes. Unfortunately, in the context of ambitious pro-environmental behaviour, such strategies seem unlikely to motivate systemic behavioural change.

Social marketing is an effective way of achieving a particular behavioural goal – dozens of practical examples in the field of health behaviour attest to this. Social marketing is really more of a framework for designing behaviour change programmes than a behaviour change programme - it offers a method of maximising the success of a specific behavioural goal. Darnton (2008) has described social marketing as 'explicitly transtheoretical', while Hastings (2007), in a recent overview of social marketing, claimed that there is no theory of social marketing. Rather, it is a 'what works' philosophy, based on previous experience of similar campaigns and programmes. Social marketing is flexible enough to be applied to a range of different social domains, and this is undoubtedly a fundamental part of its appeal.

However, social marketing's 'what works' status also means that it is agnostic about the longer term, theoretical merits of different behaviour change strategies, or the cultural values that specific campaigns serve to strengthen. Social marketing dictates that the *most effective* strategy should be chosen, where *effective* means 'most likely to achieve an immediate behavioural goal'.

This means that elements of a behaviour change strategy designed according to the principles of social marketing may conflict with other, broader goals. What if the most effective way of promoting pro-environmental behaviour 'A' was to pursue a strategy that was detrimental to the achievement of long term pro-environmental strategy 'Z'? The principles of social marketing have no capacity to resolve this conflict – they are limited to maximising the success of the immediate behavioural programme. This is not a flaw of social marketing – it was designed to provide tools to address specific behavioural problems on a piecemeal basis. But it is an important limitation, and one that has significant implications if social marketing techniques are used to promote systemic behavioural change and public engagement on an issue like climate change.

2. Be honest and forthright about the probable impacts of climate change, and the scale of the challenge we confront in avoiding these. But avoid deliberate attempts to provoke fear or guilt.

There is no merit in 'dumbing down' the scientific evidence that the impacts of climate change are likely to be severe, and that some of these impacts are now almost certainly unavoidable. Accepting the impacts of climate change will be an important stage in motivating behavioural responses aimed at mitigating the problem. However, deliberate attempts to instil fear or guilt carry considerable risk.

Studies on fear appeals confirm the potential for fear to change attitudes or verbal expressions of concern, but often not actions or behaviour (Ruiter et al., 2001). The impact of fear appeals is context - and audience - specific; for example, for those who do not yet realise the potentially 'scary' aspects of climate change, people need to *first* experience themselves as vulnerable to the risks in some way in order to feel moved or affected (Das et al, 2003; Hoog et al, 2005). As people move towards contemplating action, fear appeals can help form a behavioural intent, providing an impetus or spark to 'move' from; however such appeals must be coupled with constructive information and support to reduce the sense of danger (Moser, 2007). The danger is that fear can also be disempowering – producing feelings of helplessness, remoteness and lack of control (O'Neill and Nicholson-Cole, 2009). Fear is likely to trigger 'barriers to engagement', such as denial[2] (Stoll-Kleemann et al., 2001; Weber, 2006; Moser and Dilling, 2007; Lorenzoni, Nicholson-Cole & Whitmarsh, 2007). The location of fear in a message is also relevant; it works better when placed first for those who are inclined to follow the advice, but better second for those who aren't (Bier, 2001).

Similarly, studies have shown that guilt can play a role in motivating people to take action but can also function to stimulate defensive mechanisms against the perceived threat or challenge to one's sense of identity (as a good, moral person). In the latter case, behaviours may be left untouched (whether driving a SUV or taking a flight) as one defends against any feelings of guilt or complicity through deployment of a range of justifications for the behaviour (Ferguson & Branscombe, 2010).

Overall, there is a need for *emotionally* balanced representations of the issues at hand. This will involve acknowledging the 'affective reality' of the situation, e.g. "We know this is scary and overwhelming, but many of us feel this way and we are doing something about it".

3. **Be honest and forthright about the impacts of mitigating and adapting to climate change for current lifestyles, and the 'loss' – as well as the benefits – that these will entail. Narratives that focus exclusively on the 'up-side' of climate solutions are likely to be unconvincing.**

While narratives about the future impacts of climate change may highlight the loss of much that we currently hold to be dear, narratives about climate solutions frequently ignore the question of loss. If the two are not addressed concurrently, fear of loss may be 'split off' and projected into the future, where it is all too easily denied. This can be dangerous, because accepting loss is an important step towards working through the associated emotions, and emerging with the energy and creativity to respond positively to the new situation (Randall, 2009). However, there are plenty of benefits (besides the financial ones) of a low-carbon lifestyle e.g., health, community/social interaction - including the 'intrinsic' goals mentioned below. It is important to be honest about both the losses and the benefits that may be associated with lifestyle change, and not to seek to separate out one from the other.

3a. **Avoid emphasis upon painless, easy steps.**

Be honest about the limitations of voluntary private-sphere behavioural change, and the need for ambitious new policy interventions that incentivise such changes, or that regulate for them. People know that the scope they have, as individuals, to help meet the challenge of climate change is extremely limited. For many people, it is perfectly sensible to continue to adopt high-carbon lifestyle choices whilst simultaneously being supportive of government interventions that would make these choices more difficult for *everyone*.

The adoption of small-scale private sphere behavioural changes is sometimes assumed to lead people to adopt ever more difficult (and potentially significant) behavioural changes. The empirical evidence for this 'foot-in-the-door' effect is highly equivocal. Some studies detect such an effect; others studies have found the reverse effect (whereby people tend to 'rest on their laurels' having adopted a few simple behavioural changes - Thogersen and Crompton, 2009). Where attention is drawn to simple and painless private-sphere behavioural changes, these should be urged in pursuit of a set of intrinsic goals (that is, as a response to people's understanding about the contribution that such behavioural change may make to benefiting their friends and family, their community, the wider world, or in contributing to their growth and development as individuals) rather than as a means to achieve social status or greater financial success. Adopting behaviour in pursuit of intrinsic goals is more likely to lead to 'spillover' into other sustainable behaviours (De Young, 2000; Thogersen and Crompton, 2009).

People aren't stupid: they know that if there are wholesale changes in the global climate underway, these will not be reversed merely through checking

5

their tyre pressures or switching their TV off standby. An emphasis upon simple and painless steps suppresses debate about those necessary responses that are less palatable – that will cost people money, or that will infringe on cherished freedoms (such as to fly). Recognising this will be a key step in accepting the reality of loss of aspects of our current lifestyles, and in beginning to work through the powerful emotions that this will engender (Randall, 2009).

3b. Avoid over-emphasis on the economic opportunities that mitigating, and adapting to, climate change may provide.

There will, undoubtedly, be economic benefits to be accrued through investment in new technologies, but there will also be instances where the economic imperative and the climate change adaptation or mitigation imperative diverge, and periods of economic uncertainty for many people as some sectors contract. It seems inevitable that some interventions will have negative economic impacts (Stern, 2007).

Undue emphasis upon economic imperatives serves to reinforce the dominance, in society, of a set of extrinsic goals (focussed, for example, on financial benefit). A large body of empirical research demonstrates that these extrinsic goals are antagonistic to the emergence of pro-social and pro-environmental concern (Crompton and Kasser, 2009).

3c. Avoid emphasis upon the opportunities of 'green consumerism' as a response to climate change.

As mentioned above (3b), a large body of research points to the antagonism between goals directed towards the acquisition of material objects and the emergence of pro-environmental and pro-social concern (Crompton and Kasser, 2009). Campaigns to 'buy green' may be effective in driving up sales of particular products, but in conveying the impression that climate change can be addressed by 'buying the right things', they risk undermining more difficult and systemic changes. A recent study found that people in an experiment who purchased 'green' products acted *less* altruistically on subsequent tasks (Mazar & Zhong, 2010) – suggesting that small ethical acts may act as a 'moral offset' and licence undesirable behaviours in other domains. This does not mean that private-sphere behaviour changes will always lead to a reduction in subsequent pro-environmental behaviour, but it does suggest that the *reasons* used to motivate these changes are critically important. Better is to emphasise that 'every little helps a little' – but that these changes are only the beginning of a process that must also incorporate more ambitious private-sphere change and significant collective action at a political level.

4. Empathise with the emotional responses that will be engendered by a forthright presentation of the probable impacts of climate change.

Belief in climate change and support for low-carbon policies will remain fragile unless people are emotionally engaged. We should expect people to be sad or angry, to feel guilt or shame, to yearn for that which is lost or to search for more comforting answers (Randall, 2009). Providing support and empathy in working through the painful emotions of 'grief' for a society that must undergo changes is a prerequisite for subsequent adaptation to new circumstances.

Without such support and empathy, it is more likely that people will begin to deploy a range of maladaptive 'coping strategies', such as denial of personal responsibility, blaming others, or becoming apathetic (Lertzman, 2008). An audience should not be admonished for deploying such strategies – this would in itself be threatening, and could therefore harden resistance to positive behaviour change (Miller and Rolnick, 2002). The key is not to dismiss people who exhibit maladaptive coping strategies, but to understand how they can be made more adaptive. People who feel socially supported will be more likely to adopt adaptive emotional responses - so facilitating social support for pro-environmental behaviour is crucial.

5. Promote pro-environmental social norms and harness the power of social networks

One way of bridging the gap between private-sphere behaviour changes and collective action is the promotion of pro-environmental social norms. Pictures and videos of ordinary people ('like me') engaging in significant pro-environmental actions are a simple and effective way of generating a sense of social normality around pro-environmental behaviour (Schultz, Nolan, Cialdini, Goldstein and Griskevicius, 2007). There are different reasons that people adopt social norms, and encouraging people to adopt a positive norm simply to 'conform', to avoid a feeling of guilt, or for fear of not 'fitting in' is likely to produce a relatively shallow level of motivation for behaviour change. Where social norms can be combined with 'intrinsic' motivations (e.g. a sense of social belonging), they are likely to be more effective and persistent.

Too often, environmental communications are directed to the individual as a single unit in the larger social system of consumption and political engagement. This can make the problems feel too overwhelming, and evoke unmanageable levels of anxiety. Through the enhanced awareness of what other people are doing, a strong sense of collective purpose can be engendered. One factor that is likely to influence whether adaptive or maladaptive coping strategies are selected in response to fear about climate change is whether people feel supported by a social network – that is, whether a sense of 'sustainable citizenship' is fostered. The efficacy of group-based programmes at promoting pro-environmental behaviour change has been demonstrated on numerous occasions – and participants in these projects consistently point to a sense of mutual learning and support as a key reason for making and maintaining changes in behaviour (Nye and Burgess, 2008). There are few influences more powerful than an individual's social network. Networks are instrumental not just in terms of providing social support, but also by creating specific content of social identity – defining what it means to be "us". If environmental norms are incorporated at this level (become defining for the group) they can result in significant behavioural change (also reinforced through peer pressure).

Of course, for the majority of people, this is unlikely to be a network that has climate change at its core. But social networks – Trade Unions, Rugby Clubs, Mother & Toddler groups – still perform a critical role in spreading change through society. Encouraging and supporting pre-existing social networks to take ownership of climate change (rather than approach it as a problem for 'green groups') is a critical task. As well as representing a crucial bridge between individuals and broader society, peer-to-peer learning circumnavigates many of the problems associated with more 'top down' models of communication – not least that government representatives are perceived as untrustworthy (Poortinga & Pidgeon, 2003). Peer-to-peer learning is more easily achieved in group-based dialogue than in designing public information films: But public information films can nonetheless help to

establish social norms around community-based responses to the challenges of climate change, through clear visual portrayals of people engaging collectively in the pro-environmental behaviour.

The discourse should be shifted increasingly from 'you' to 'we' and from 'I' to 'us'. This is starting to take place in emerging forms of community-based activism, such as the Transition Movement and Cambridge Carbon Footprint's 'Carbon Conversations' model – both of which recognize the power of groups to help support and maintain lifestyle and identity changes. A nationwide climate change engagement project using a group-based behaviour change model with members of Trade Union networks is currently underway, led by the Climate Outreach and Information Network. These projects represent a method of climate change communication and engagement radically different to that typically pursued by the government – and may offer a set of approaches that can go beyond the limited reach of social marketing techniques.

One potential risk with appeals based on social norms is that they often contain a hidden message. So, for example, a campaign that focuses on the fact that too many people take internal flights actually contains two messages – that taking internal flights is bad for the environment, and that *lots of people are taking internal flights*. This second message can give those who do not currently engage in that behaviour a perverse incentive to do so, and campaigns to promote behaviour change should be very careful to avoid this. The key is to ensure that information about what *is* happening (termed descriptive norms), does not overshadow information about what *should* be happening (termed injunctive norms).

6. Think about the language you use, but don't rely on language alone

A number of recent publications have highlighted the results of focus group research and talk-back tests in order to 'get the language right' (Topos Partnership, 2009; Western Strategies & Lake Research Partners, 2009), culminating in a series of suggestions for framing climate-change communications. For example, these two studies led to the suggestions that communicators should use the term 'global warming' or 'our deteriorating atmosphere', respectively, rather than 'climate change'. Other research has identified systematic differences in the way that people interpret the terms 'climate change' and 'global warming', with 'global warming' perceived as more emotionally engaging than 'climate change' (Whitmarsh, 2009).

Whilst 'getting the language right' is important, it can only play a small part in a communication strategy. More important than the language deployed (i.e. 'conceptual frames') are what have been referred to by some cognitive linguists as 'deep frames'. Conceptual framing refers to catchy slogans and clever spin (which may or may not be honest). At a deeper level, framing refers to forging the connections between a debate or public policy and a set of deeper values or principles. Conceptual framing (crafting particular messages focussing on particular issues) cannot work unless these messages resonate with a set of long-term deep frames.

Policy proposals which may at the surface level seem similar (perhaps they both set out to achieve a reduction in environmental pollution) may differ importantly in terms of their deep framing. For example, putting a financial value on an endangered species, and building an economic case for their conservation 'commodifies' them, and makes them equivalent (at the level of deep frames) to other assets of the same value (a hotel chain, perhaps). This is a very different frame to one that attempts to achieve the same conservation goals through the ascription of intrinsic value to such species – as something that should be protected in its own right. Embedding particular deep frames requires concerted effort (Lakoff, 2009), but is the beginning of a process that can build a broad, coherent cross-departmental response to climate change from government.

7. Encourage public demonstrations of frustration at the limited pace of government action

Private-sphere behavioural change is not enough, and may even at times become a diversion from the more important process of bringing political pressure to bear on policy-makers. The importance of public demonstrations of frustration at both the lack of political progress on climate change and the barriers presented by vested interests is widely recognised – including by government itself. Climate change communications, including government communication campaigns, should work to normalise public displays of frustration with the slow pace of political change. Ockwell et al (2009) argued that communications can play a role in fostering demand for - as well as acceptance of - policy change. Climate change communication could (and should) be used to encourage people to demonstrate (for example through public demonstrations) about how they would like structural barriers to behavioural/societal change to be removed.

Endnotes

[1] For example, Ed Miliband, previous UK Secretary of State for Energy and Climate change, is quoted as saying: "There will be some people saying 'we can't go ahead with an agreement on climate change, it's not the biggest priority'. And, therefore, what you need is countervailing forces. Some of those countervailing forces come from popular mobilisation." (*The Guardian*, 8 December 2008).

[2] We use the word 'denial' here in the sense that it is used in psychotherapy and analysis, to describe a specific mode of psychological defence which consists in a refusal to recognise the reality of a traumatic event or perception.

References

Bier, V.M. (2001). On the State of the Art: Risk Communication to the Public. *Reliability Engineering and System Safety, 71*, 139-150.

Crompton, T. and Kasser, T. (2009) *Meeting Environmental Challenges: The Role of Human Identity*, WWF-UK: Godalming. (Available at: www.wwf.org.uk/change).

Darnton, A 2008. 'Behaviour Change Knowledge Review – Practical Guide'. Andrew Darnton for the Government Social Research Unit, July 2008.

De Young (2000). Expanding and evaluating motives for environmentally responsible behaviour. *Journal of Social Issues 56 (3)* 509-526.

Das, de Wit, Stroebe (2003). Fear Appeals Motivate Acceptance of Action Recommendations: Evidence for a Positive Bias in the Processing of Persuasive Messages. *Personality and Social Psychology Bulletin, 29*, 650-664.

Ferguson & Branscombe (2010). Collective guilt mediates the effect of beliefs about global warming on willingness to engage in mitigation behaviour. *Journal of Environmental Psychology 30 (2)* 135-142.

Hopkins, R. (2008) *The Transition Handbook: From the oil dependency to local resilience*. Greenbooks, Totnes.

Hoog, N., Stroebe, W., & de Wit, J. B. F. (2005). The impact of Fear Appeals on processing and acceptance of action recommendations. Personality & *Social Psychology Bulletin 31,* 24–33.

Lakoff, G. (2009) Why Environmental Understanding, or "Framing," Matters: An Evaluation of the EcoAmerica Summary Report, Huffington Post, 19 May, 2009. (Available at: www.huffingtonpost.com)

Lertzman, R. (2008) The myth of apathy. *The Ecologist* 19 (6) 16-17

Lorenzoni, I., Nicholson-Cole, S. & Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change 17*, 445-459.

McKay, D. (2008) Sustainable Energy – Without the Hot Air. Cambridge, UK: UIT.

Mazar, N. & Zhong, C.B. (2010). Do Green Products Make Us Better People? *Psychological Science 21,* 494-498.

Miller, W.R. and Rolnick, S. (2002) *Motivational Interviewing: Preparing People for Change* (2nd Ed.). New York: Guilford Press.

Moser, S.C. (2007). More bad news: the risk of neglecting emotional responses to climate change information. In *Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change,* eds. Moser, S.C. and Dilling, L. Cambridge, UK: Cambridge University Press, pp. 64-77.

Moser, S.C. & Dilling, L. (2007). *Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change.* Cambridge, UK: Cambridge University Press.

Nye, M. & Burgess, J. (2008). Promoting durable change in household waste and energy use behaviour. *Defra.*

Ockwell, D., Whitmarsh, L. & O'Neill, S. (2009). Reorienting climate change communication for effective mitigation – forcing people to be green or fostering grass-roots engagement? *Science Communication, 30*(3)*, 305-327.*

O'Neill, S. & Nicholson-Cole, S. (2009). "Fear Won't Do It": Promoting Positive Engagement With Climate Change Through Visual and Iconic Representations. *Science Communication 30*, 355-379.

Poortinga, W. and Pidgeon, N.F. (2003) Exploring the dimensionality of trust in risk regulation, *Risk Analysis*, 23, 961-972.

Randall R.(2009) Loss and climate change: the cost of parallel narratives. Ecopsychology 3: 118-129

Ruiter, R.A., Abraham, C. & Gok, G. (2001). Scary warnings and rational precautions: A review of the psychology of fear appeals. *Psychology & Health 16 (6)* 613 – 630.

Schultz, P.W., Nolan, J.M., Cialdini, R.B., Goldstein, N.J. & Griskevicius, V. (2007). The Constructive, Destructive, and Reconstructive Power of Social Norms. *Psychological Science 18 (5)* 429-434.

Stern, N. (2007) *The Economics of Climate Change: The Stern Review*. Cambridge: Cambridge University Press.

Stoll-Kleemann, S., O'Riordan, T., and Jaeger, C.C. (2001) The psychology of denial concerning climate mitigation measures: Evidence from Swiss focus groups. *Global Environmental Change 11* 107-117.

Thogersen, J.B. and Crompton, T. (2009) Simple and Painless? The limitations of spillover in environmental campaigning. *Journal of Consumer Policy* 32 141-163.

Topos Partnership (2009) *Climate Crossroads: A Research-based Framing Guide*, Topos Partnership.

Weber, E. U. (2006). Evidence-based and description-based perceptions of long-term risk: Why global warming does not scare us (yet). *Climatic Change 77*, 103-120.

Western Strategies & Lake Research Partners (2009). *Climate and Energy Truths: Our Common Future.* Washington, US: EcoAmerica.

Whitmarsh, L. (2009). What's in a name? Commonalities and differences in public understanding of 'climate change' and 'global warming'. *Public Understanding of Science 18,* 401-420.

Climate Change
Communication
Advisory Group

This report was prepared by the Climate Change Communication Advisory Group (CCCAG). The aim of CCCAG is to use current academic research and practitioner-based expertise to best inform government and non-governmental climate change communications and engagement. We represent a diverse range of individuals from academia and the third sector, with expertise in climate change communication and engagement:

Dr Adam Corner
School of Psychology,
Cardiff University

Dr Tom Crompton
Change Strategist, WWF-UK

Scott Davidson
Programme Manager,
Global Action Plan

Richard Hawkins
Senior Researcher,
Public Interest Research Centre

Professor Tim Kasser
Psychology department, Knox College,
Galesburg, Illinois, USA.

Dr Renee Lertzman
Center for Sustainable Processes &
Practices, Portland State University,
US.

Peter Lipman
Policy Director, Sustrans.

Dr Irene Lorenzoni
Centre for Environmental Risk,
University of East Anglia.

George Marshall
Founding Director, Climate Outreach
Information Network

Dr Ciaran Mundy
Director, Transition Bristol

Dr Saffron O'Neil
Department of Resource Management
and Geography, University of
Melbourne, Australia.

Professor Nick Pidgeon
Director, Understanding Risk
Research Group, School of
Psychology, Cardiff University.

Dr Anna Rabinovich
School of Psychology,
University of Exeter

Rosemary Randall
Founder and director of
Cambridge Carbon Footprint

Dr Lorraine Whitmarsh
School of Psychology, Cardiff
University & Visiting Fellow at the
Tyndall Centre for Climate Change
Research.

Please address all correspondence to:

Dr Adam Corner
School of Psychology
70 Park Place
Cardiff University
CF10 3AT
Tel: 02920 870837
Email: **corneraj@cardiff.ac.uk**