

## The challenges of communicating climate change

Anabela Carvalho

In an article from 2000 Sheldon Ungar stated that, unlike the ozone hole, climate change never generated a 'hot crisis'. Looking at the prominence of the issue in the national and international political agendas and the volume of media coverage that it has sustained in the last five years or so one is led to believe that things have changed. A series of remarkable events has contributed to transform climate change into one of the most high profile issues of the present moment: hurricane Katrina, Al Gore's film and book *An Inconvenient Truth*, the Nobel prize that was awarded jointly to him and to the IPCC, the *Stern Review on the Economics of Climate Change*, Live Earth, and the gloomy forecasts of the 4<sup>th</sup> IPCC Assessment Report all concurred to putting climate change on the media, the public's and the political agendas, which then tend to feed each other. In fact, multiple surveys indicate that people around the world are aware of the issue and very concerned, are willing to act upon it and expect politicians to take the lead. Yet, global greenhouse gas emissions have continued to rise rapidly.

The scientific, political and economic complexity of climate change brings up a number of challenges for communication, which are enhanced by the multiple time and spatial scales of the problem, the ethical, social and cultural values involved in decisions, and the urgent need for concerted action to mitigate greenhouse gas emissions. As recently shown by Moser and Dilling (2007), promoting social change to address climate change faces a number of hurdles but is ever more pressing. In this context, a number of questions beg for answers: What are the meanings associated with climate change in different parts of the world and how have those meanings been produced, reproduced and transformed? How have the media in different countries been representing this issue? How do people perceive it and to what extent are they integrating it into their actions? To what extent is climate change making us rethink our practices of consumption and mobility? What are the relations between political action or inaction and given forms of discursive construction of climate change?

Stemming from a conference that took place at the University of Minho on 19-20 November 2007 and from a research project entitled 'The Politics of Climate Change: Discourses and Representations', this book looks at three main aspects: the discourses of a variety of social actors on climate change, from scientists to religious leaders; the reconstruction of those discourses in the media and the multiple depictions of the issue in the press, television and the Internet; and people's perceptions, understandings and attitudes in relation to the issue. Most importantly, the book aims to contribute to understanding the circular relations between these three aspects: discourses, mediations and perceptions. The organization of the book in three parts corresponds to these themes and throughout the chapters, the links, connections and impacts between those three aspects keep coming to light.

The first study, by Anne Cristina de la Vega-Leinert and Dagmar Schröter, focuses on the communication between scientists and stakeholders on climate change. Reporting on the outcomes of a stakeholder dialogue in Germany, the authors examine the difficulties and the benefits associated to exchanging ideas with various types of people and the gains derived from the negotiations that occur in those processes. They highlight the challenges involved in bridging the language of science and the language of other social fields.

Mirjia Vihersalo's chapter is about the ways climate change was framed in policy statements in the Montreal summit of 2005. She concludes that there were two main frames. In one frame, climate change was considered as a problem of greenhouse gas emissions and therefore a treatable global problem, with an emphasis on economic measures. In the second frame, climate change was represented as a problem of vulnerability and scarce resources. Vihersalo also identifies the different forms of argumentation and the struggles associated to those two discourses. Her analysis shows that multiple understandings of climate change can be found in official discourses alone. Far from being seen as an environmental problem only, climate change is recurrently embedded with other issues, such as social and economic development, which shape meanings, standpoints and decisions in particular ways.

In the same line, Arjan (J.A.) Wardekker, Arthur C. Petersen and Jeroen P. van der Sluijs look at religious discourses on climate change in the USA and the arguments used to support or oppose strong policy on the issue. Given the weight of the evangelical community that is the focus of this study, the authors argue that it is worth paying more attention to the values underlying these discourses and how the same principles can be the basis for arguing for different outcomes.

Judy M. Ford looks at how cultural difference is discursively constructed and reinforced in ways that counter universal policy standards on climate change and that support various interests, including the maintenance of lifestyles and identities based on high-energy

consumption. She contrasts that with the universal values that are embedded in human relations to the environment and points out various universal motivators.

The second part of the book opens with a review of research on media and climate change by Astrid Dirikx and Dave Gelders. They start by discussing the roles of the media in the public perception of the issue with reference to various academic traditions, from agenda-setting studies to frame analysis. Dirikx and Gelders outline some of the key conclusions of existing research on media representations of climate change and conclude with a suggestion for more research in European countries. The research questions presented at the end of their paper constitute a promising agenda for investigating mediated discourses on climate change.

Cecilia Rosen Ferlini and Javier Cruz-Mena focus on the coverage of scientific knowledge on climate change in the print media and on the related social responsibilities of journalism. They propose evaluating news practices on climate change based on a 'functional model' that questions whether journalism provides citizens information needed to make relevant decisions. Their analysis of the representation of the IPCC's 2001 Assessment Report in three Mexican quality newspapers, leads to a dismaying picture as, unlike newspapers from other countries, they failed to inform about the key conclusions of the IPCC and hence, Rosen and Cruz-Mena argue, impaired readers' ability to make decisions in relation to climate change.

Based on the analysis of the representations of climate change in the Portuguese media in a set of critical moments, Anabela Carvalho and Eulália Pereira examine the discourses and 'discursive repertoires' circulating in the public sphere, and discuss the problems associated with representations of the issue in the press and television news. They also link those representations to the discourses of scientists, politicians and business people, among other social actors.

The third part of the book focuses on citizens' perceptions of climate change. Joop de Boer's paper examines the role of mental models in relation to climate change. Based on a wealth of data from European surveys, he concludes that climate change is widely perceived by people as a common cause of various changes in nature but that citizens do not have a clear understanding of the energy situation of their countries and that a frame for climate-proofing decisions is missing.

Using an extensive questionnaire to examine people's social representations of climate change and their relations with the media, Rosa Cabecinhas, Alexandra Lázaro and Anabela Carvalho conclude that the media are the main source of information on climate change and that patterns of use of information sources (type of source and frequency of use) are a predictor variable of levels of concern, behavioural engagement and knowledge on climate change, although they do not affect risk perceptions or the valence of images associated

with climate change (negative or positive). They point out that more research is needed on media consumption, social networks and social representations on climate change.

The book closes with a study by Wojciech Biernacki, Anita Bokwa, Boleslaw Domanski, Jarosław Dzialek, Karol Janas and Tomasz Padło. They examine perceptions of extreme 'natural' phenomena in Poland, namely floods, strong winds and landslides. Among other interesting results, they conclude that there is a common cognitive dissonance between the sense of risk and evaluation of personal responsibility in contributing to it, as in the case of construction of houses in floodplains. This may be an indication of the kind of denial strategies people may employ in dealing with the causes and the impacts of climate change. Biernacki et al also conclude that while the quality of the news about environmental issues is poor in Polish media they are the preferred means of information about extreme phenomena (in particular local mass media) and recommend that local authorities pay more attention to their role in the communication of risk.

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### **References**

- Moser, S. C. and Dilling, L. (eds) (2007) *Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change*. Cambridge: Cambridge University Press.
- Ungar, S. (2000) 'Knowledge, Ignorance and the Popular Culture: Climate Change Versus the Ozone Hole', *Public Understanding of Science* 9 (3): 297-312.

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