



ISSUES IN BRIEF

Perceptions of Climate Change: The Role of Art and the Media



Miquel Muñoz is a Post-Doctoral Fellow at the Pardee Center for the Study of the Longer-Range Future, where he specializes in climate change, renewable energy and sustainable development. He has participated as an observer in more than 50 international environmental negotiations meetings.



Bernd Sommer is a Research Fellow at the Institute for Advanced Study in the Humanities (KWI) in Essen, Germany, and Research Analyst to the German Advisory Council on Global Change (WBGU), which advises the Federal Government on climate change and other global environmental and development issues.

Miquel Muñoz and Bernd Sommer

Climate change is a global environmental problem that has transcended the boundaries of science and environmentalism to become a mainstream political, economic and social concern. Climate change as an issue for society was initially framed by scientists and environmentalists, who took the lead on raising public awareness of the problem. However, climate change is no longer defined by either scientists or environmentalists (although some in both groups have not realized that yet). While scientists *likely* believe the landmark reports by the Intergovernmental Panel on Climate Change (IPCC) are fundamental in shaping public perception of climate change, the truth is that the majority of the public has never seen an IPCC report, let alone read its thousands of pages. Other actors, then, play arguably more relevant roles in shaping public perception. Research shows that public views on climate change are influenced not only by scientific, technical and other descriptions of the issue but also by a number of experiential factors, including emotions, imagery and values (Leiserowitz 2006). And this matters because public perception of the causes, risks, and consequences of climate change ultimately determines many of the political, economic and social responses to it.

This issues brief is based on the discussions that took place at a symposium held at Boston University, titled *Transatlantic Perceptions of Climate Change: The Role of the Arts and Media* (see box on page 2). The symposium brought together academics, journalists, bloggers and artists from both sides of the Atlantic to discuss the perceptions and communication of climate change issues in the American and European public spheres.

In particular, this paper explores the roles played by the media and the arts in shaping the public opinion on climate change. In the case of journalists and the media outlets they work for, the influence is obvious: journalists in print, television, radio and the blogosphere have

been instrumental in shaping the public debate on climate change issues. Notwithstanding the media's role, large swaths of the public were sensitized to the causes and consequences of climate change through other means, including films conceptualized for the masses, such as "The Day after Tomorrow" (Roland Emmerich) and Academy-award winner "An Inconvenient Truth" (Al Gore), and art exhibitions such as Yann Arthus-Bertrand's "Earth from Above." A

growing number of authors, artists and others working in the arts have occupied themselves with climate change or some of its facets. Ian McEwan's novel *Solar* is one recent example.

The symposium also highlighted a different facet regarding the role of media and art: not what the role is, but, what should it be? There is a tension concerning opinions of what the right role is for the media and artists regarding climate change. Is the media responsible for convincing the public about the gravity of climate change, thus conveying the message of scientists and concerned citizens, or is the media's role to reflect what is going on within society, thus acting more like a mirror?

Media and Public Perception in the U.S. and Europe

As noted by ABC News Correspondent Bill Blakemore, media coverage of climate change is probably the biggest failure of quality journalism in the United States. Scientifically, it is now clear that climate change is happening as a consequence of the buildup of greenhouse gases in the atmosphere due to human activities.

However, a significant and growing number of Americans do not believe in anthropogenic climate change (Pew Center 2009). While in Europe climate skepticism also exists, skeptics there have not permeated high-level politics, and media coverage on climate change is generally more accurate.

Several reasons may account for the American media's failure to compellingly or accurately convey the scientific findings to their audience. A media analysis (Boykoff and Boykoff 2004) illustrates that when it comes to the coverage of climate change, adhering to the journalistic norm of "balanced" reporting (understood in the U.S. context as providing "both" sides of the story) can, ultimately, lead to biased coverage.

According to Anderegg et al. (2010), 97 to 98 percent of climate researchers most actively publishing in the field support the notion of anthropogenic climate change. "Balancing" media stories on climate change with statements from the two to three percent of researchers who downplay climate change or its human cause results in a distorted view of climate science, i.e. that anthropogenic climate change is still disputed among the scientific community. Stefan Rahmstorf of the Potsdam Institute for Climate Impact argues that on issues such as climate change journalists should abandon their "A said, B said" type of reporting, and should be less afraid to make judgments. However, "balancing" is not the only issue that influences how the media covers climate change.

Symposium on the Arts, Media and Climate Change

On 18-19 October 2010, a symposium was held at Boston University titled *Transatlantic Perceptions of Climate Change: The Role of the Arts and Media*. The symposium was co-organized by the Goethe-Institut Boston, Boston University's Frederick S. Pardee Center for the Study of the Longer-Range Future, and the Institute for Advanced Study in the Humanities (KWI) at Essen, Germany.

Participants were a mix of academics, journalists and artists, including: **Andrew Revkin**, Pace Academy for Applied Environmental Studies, and blog writer for the *The New York Times*' Dot Earth; **Mike Bonanno**, Department of the Arts, Rensselaer Polytechnic Institute and member of The Yes Men; **Stefan Rahmstorf**, Potsdam Institute for Climate Impact Research (PIK); **Adil Najam** and **Miquel Muñoz**, Boston University's Frederick S. Pardee Center for the Study of Longer-Range-Future; **Chris Russill**, School of Journalism and Communication, Carleton University; **Bernd Sommer**, Institute for Advanced Study in the Humanities (KWI); **Ann-Kathrin Eckardt**, reporter at *NEON Magazine*; **Beth Daley**, environmental reporter at *The Boston Globe*; **Victor Coelho**, College of Fine Arts, Boston University; **Marc Roberts**, climate blogtoonist; **Simon Faithfull**, video artist; **Heidi Quante**, 350.org EARTH Project; and **Detlef Gericke-Schönhagen** Goethe-Institut Boston.

The fields of science and media work according to different rules and logics. Because of commercial interests, the need for headlines, and the blurring of the line between “news” and “entertainment”, the media tends to focus on conflicts and dissent, in order to provide their audience with a thrilling story — something a report about the overwhelming consensus within climate science is not. Ann-Kathrin Eckardt of *NEON Magazine* points out that climate change is a difficult subject to cover because it is very abstract: there are no smoking guns, no directly attributable victims, and no media-effective lawsuits, which means there are no good stories or headlines from a journalistic point of view. The long-term nature of climate change, which lacks the freshness or immediacy of other news, also makes journalistic coverage less appealing.

The tremendous changes to the composition and business models of the media during the last two decades (Crouch 2004) is also a relevant factor in explaining the shortcomings of climate coverage. With the restructuring and concentration of the industry, the U.S. has experienced a drastic decline in the quality and diversity of media. This affects all spheres of reporting, and climate change is no exception.

Effective communication of climate change needs high quality journalism, something in short supply at many mainstream media outlets. Beth Daley of *The Boston Globe* notes how journalists used to have time and resources to prepare complex stories, but are now asked to work on tighter deadlines with fewer resources.

Another relevant factor that changed the field of media radically is the emergence of the Internet and the blogosphere. *The New York Times* blogger Andrew Revkin noted how, in particular, niche fragmentation within online media — or media “a la carte” — allows people to go with their ideas unchallenged: everybody is able to select media outlets that agree with their positions and ignore the rest if they wish to. Chris Russill of Carleton University also stresses the importance of the new media ethos of openness in the backlash to climate science. According to Russill, the so-called “Climategate” in 2009-2010, could unfold with such intensity not because it was lobbyist-driven, but because it was seen as a violation of the open-source ethos.

Finally, it is important to note the disconnect between scientists and journalists, a disconnect beyond the different rules and logics already mentioned. Neither group wants to be perceived as having been manipulated by the other. Thus, journalists sometimes resist (actively or passively) being “used” by scientists to convey their vision of the problem, while scientists sometimes resist (also actively or passively) requests from journalists to provide intelligible direct language and messages.

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The Role of Climate Skepticism

Climate skeptics have undeniably mastered the art of shaping public perception on climate change. Within the media and public debates on climate change, broadly speaking, three main types climate skepticism can be distinguished:

- (1) The **denial of climate change**, abundant in the 1990s, is now the rarest type of climate skepticism, as a measurably warmer globe, in addition to an overwhelming quantity of other measurements and indicators, become harder and harder to refute;

- (2) Denial of the anthropogenic nature of climate change, arguing that temperatures on earth are mainly rising due to natural factors, or that there is **uncertainty about the reasons**. Typical arguments are that the “climate system is too complex to understand,” that “computer models cannot be trusted,” and that “more research is needed.” Such arguments often conclude that because of the uncertainties it would be “irresponsible” to spend resources in order to prevent something that is not yet proven.
- (3) Denial that climate change is such a bad thing. It is argued that “a moderate warming might be beneficial” and, generally, **“consequences of climate change will be manageable”**. This type of climate skepticism very often goes hand-in-hand with the rejection of proposals for setting clear targets for greenhouse gas emission reductions.

While the first type of climate skepticism — a total denial of climate change — cannot be found in European mainstream media, the “scientific uncertainty” argument, and especially the thesis that societies can easily adapt to climate change, exists on both sides of the Atlantic. These arguments, however, are put forward more subtly in Europe’s media than in the U.S., namely, by the choice of the quoted climate scientists. This can be illustrated by the example of the German weekly magazine *Der Spiegel* (more than one million readers). Avram (2010) analyzed *Der Spiegel’s* climate change coverage for 10 months and found that the three most

often quoted climate researchers were scientists with a rather weak scientific reputation in terms of publications in prime journals and citations. However, these quoted researchers argue that climate change will be manageable and criticize their colleagues and the IPCC for being “alarmist”. In short, these “experts” were not chosen for their scientific reputation, but arguably because they said what *Der Spiegel* wanted to hear.

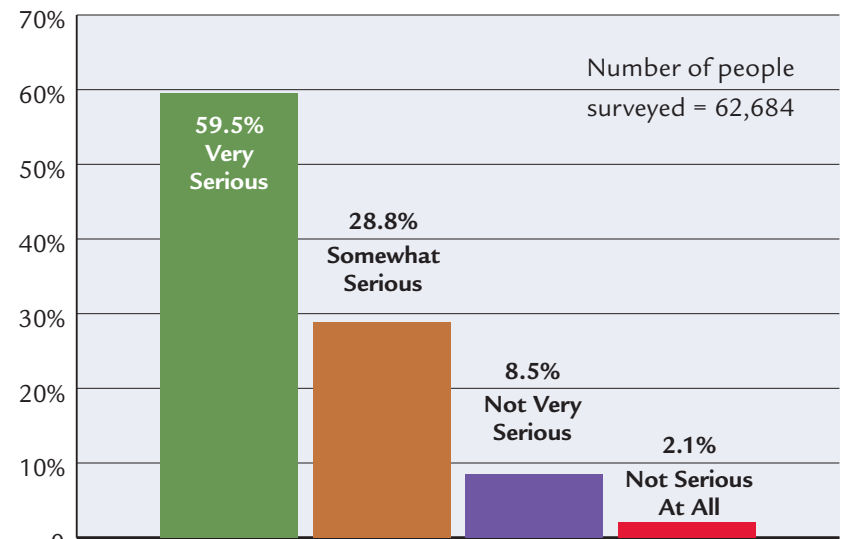
“One of climate skeptics largest triumphs is, arguably, their success in making people believe that climate science is largely divided on the issue of climate change.”

In addition to the three kinds of skepticism noted above, it is worth mentioning another category here: the falsely labeled “skeptic”. The term climate skeptic is often misused to discredit scientists who have legitimate concerns regarding one or more aspects of climate change. An infamous example may be Vijay Raina, an Indian glaciologist who questioned the IPCC 2007 report’s findings on the melting of Himalayan Glaciers by 2035. IPCC Chair Rajendra Pachauri dubbed his work as “voodoo science,” and reminiscent of “climate change deniers and school boy science.” Eventually Raina’s criticism was proven correct and the IPCC had to retract its glaciers statement. While Raina’s other work is still the subject of debate, the fact that his legitimate disagreement was incorrectly (and arrogantly) dismissed, damaged the reputation of the IPCC and the credibility of climate science in general. Scientists of most disciplines risk similar, if less intense, “skeptic” labeling when opposing climate change orthodoxy.

One of climate skeptics largest triumphs is, arguably, their success in making people believe that climate science is largely divided on the issue of climate change. Climate skeptics falsely claim that public opinion on the issue of climate change is divided, too. This can be illustrated by Bjørn Lomborg’s article “Who is afraid of Climate Change?” (2010), claiming that people are increasingly bored by “hyperbolic predictions” and ceasing to worry about climate change. In order to support his argument he refers to polling data by the Pew Center (2009). Lomborg writes: “In the United States...the number of Americans who regard climate change as a very serious problem had declined from 44 percent in April 2008 to only 35 percent last October.” While this information is technically true, it is not, however, the whole truth. In addition to

the 35 percent that regard climate change as a “serious problem”, according to the same survey, another 30 percent of the questioned people regard climate change as a “somewhat serious” problem. In other words, according to the survey of the Pew Center, 65 percent of the people regard climate change as a problem (“very” or “somewhat” serious). Political psychologist Jon Krosnick (2010) points out that public opinion concerning climate change is very uniform when compared to other political issues — such as abortion or immigration. Even if the number of people sharing climate skeptic views grew recently, there is still a large majority of people that remain concerned. According to data of the World Values Survey (WVS) this holds true not only for the U.S., but for each of the 49 countries examined in all world regions, where on the aggregate, nine out of ten people think climate change is a problem (see Figure 1).

Figure 1: How serious do you consider global warming?



Source: World Values Survey 2009

Art

Art, like media, has a high potential for communicating climate change issues, from science to causes and consequences. Art can be a powerful communications instrument because it can connect with people at the emotional and belief-system levels, transcending rational (or irrational) and educational preconceptions. Some forms of art, particularly visual, can easily communicate across political and cultural boundaries. But unlike media, art is harder define, manipulate or control. Beyond the definitional aspects of what is and what is not “art”, one of the main differences between art and media is the drivers behind each enterprise. While in recent years, mainstream media is increasingly driven by profit or power goals (Crouch 2004), the drivers for art include a much larger array of motivations. Some are aesthetic, some political, some monetary, some for self-reasons and some for fame, to name a few. And what drives each of these motivations to the area of climate change also diverges. For example, as video-artist Simon Faithfull reminds us, artists throughout history have been fascinated with destruction and the end of the world (Dante’s vivid representations come to mind). In this regard, Victor Coelho of Boston University notes that climate change can be considered as a contemporary “war zone”, and as such it attracts the interest of the creative community.

“Art can be a powerful communications instrument because it can connect with people at the emotional and belief-system levels, transcending rational (or irrational) and educational preconceptions.”

The relationship between art and climate change is an understudied area. Nonetheless, we next explore three such relationships that were identified during the symposium.

The unintended climate artist — what is climate art?

What makes a climate artist? An artist intending to convey a climate message clearly fits the definition. But so does an artist whose work is framed in the context of climate change. Clear

examples of the latter are Yann Arthus-Bertrand's early work, or recent work by video-artist Simon Faithfull (see Figure 4). While their works were not initially intended as climate art, they were embraced by the climate change community and the art-interested public as such.

Art has a lasting value and high reinterpretation potential, transmitting a distorted representation of the original message, if not complete transformation. If media is a mirror, art is a prism. Through these lenses, climate art is not necessarily what the artists want it to be, but rather whether people now and in the future perceive it as such. One of the best examples is provided by Wolfgang Sachs', Wuppertal Institute for Climate, Environment and Energy, interpretation of the first picture of Earth from space. The picture, conceivably a work of art, has been reinterpreted many times, conveying meanings as opposite as Earth's fragility or our ability to manage it. Adil Najam of Boston

University's Pardee Center notes that climate art is usually identified as the art of fear, but in fact climate art is all over the place, from representations of Noah's Ark to folk music or Nobel Laureate Rabindranath Tagore's poetry.

The jester — inconvenient truths.

Artists, like medieval jesters, often have carte blanche to question the most basic premises and assumptions underlying any argument, and to bring to the fore those politically incorrect aspects that many think of but no one dares to discuss.

Cartoons are particularly powerful in this regard. Cartoonists have a long tradition of political and other activism. Climate cartoonists, such as blogtoonist Marc Roberts, are no exception. Climate cartoons (see Figure 2) have been effectively used both by climate change activists and skeptics to shape public opinion, covering aspects as varied as

snowstorms in Texas, oil spills, fraud in carbon markets, gasoline taxes and melting glaciers.

Figure 2



Marc Roberts

“If media is a mirror, art is a prism. Through these lenses, climate art is not necessarily what the artists want it to be, but rather whether people now and in the future perceive it as such.”

The activist — art with a cause.

For centuries art has been used both for conveying messages and as a tool for mobilization. Climate activists are adept at using art as a tool, one prime example being 350.org. In the run up to the UN Climate Change Conference held in Cancún, Mexico, in December 2010, 350.org organized a global art project, called EARTH, to create art forms visible from space, raise awareness, and mobilize people. One of these forms is depicted in Figure 3, a giant scarab in Egypt's desert prepared by hundreds of activists and symbolizing how solar energy can power Egypt's future. The use of national mythology for an international campaign conveys the interweaving of local and global grassroots movements.

Political art has a long history of being criticized for being no “real art,” leading to one of the fundamental questions regarding the use of art for framing the public perception on climate change: when is art art, and when is it propaganda? Detlef Gericke-Schönhagen of the

Figure 3



Huge scarab and hundreds of activists in the Egyptian desert.

photo by Ahmed Haymen

Goethe-Institut Boston notes that the concept of art as an independent creation is a Western concept that cannot be necessarily applied to global concerns on climate change.

Conclusion

Understanding the roles of the arts and the media is crucial to understanding how public opinion is shaped regarding climate change. The media — especially in the U.S. — so far does not seem to have done as well as it could in communicating the urgency and impacts of anthropogenic climate change. The media ethos, particularly the seeking and rewarding of “balanced coverage” has been a barrier. Moreover, journalistic objectivity is not and should not be the same as detachment from the issue.

As climate change became a major political, economic and social concern over the last decade, the number of artists addressing the issue has been growing as well. Art’s effects are at a deeper level than the media’s, but often are longer-term and more unpredictable. As The Yes Men’s founding member Mike Bonanno said, there is a “switch” out there, waiting to be flipped and change public perceptions and actions. Whether we will find the switch and what it will take to flip it are questions that remain to be answered.

Discussions during the two-day symposium were intense and revolved around the underlying question of the appropriate roles for media, artists and scientists related to climate change. While these issues were not resolved, questions were posed which are not often asked: Is scientists’ role is to tell us how it is? Is artists’ role is to express how we feel it about it? Should media

communicate the urgency and gravity of climate change and help educate the public? Or on the contrary, should media limit itself to be a mirror of society?

While the focus of this piece has been on the public perception in the U.S. and Europe, this frame leaves out a crucial element: the developing world. Climate change has been caused by rich countries, but rich countries alone can not solve the problem. As unjust as it is, climate action by developed countries, in order to be effective, will have to be complemented by climate action by developing countries. The latter ultimately will be driven by the public perception of climate change within developing countries. Understanding and analyzing the shaping of public perception in developing countries is, therefore, a key element to be researched if the climate change problem is to be solved. ●

Figure 4



Self Portrait – Halley Research Station, Antarctica, 12.05am
Digital photograph, 2005

courtesy Simon Faithfull & Parker's Box, New York

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