

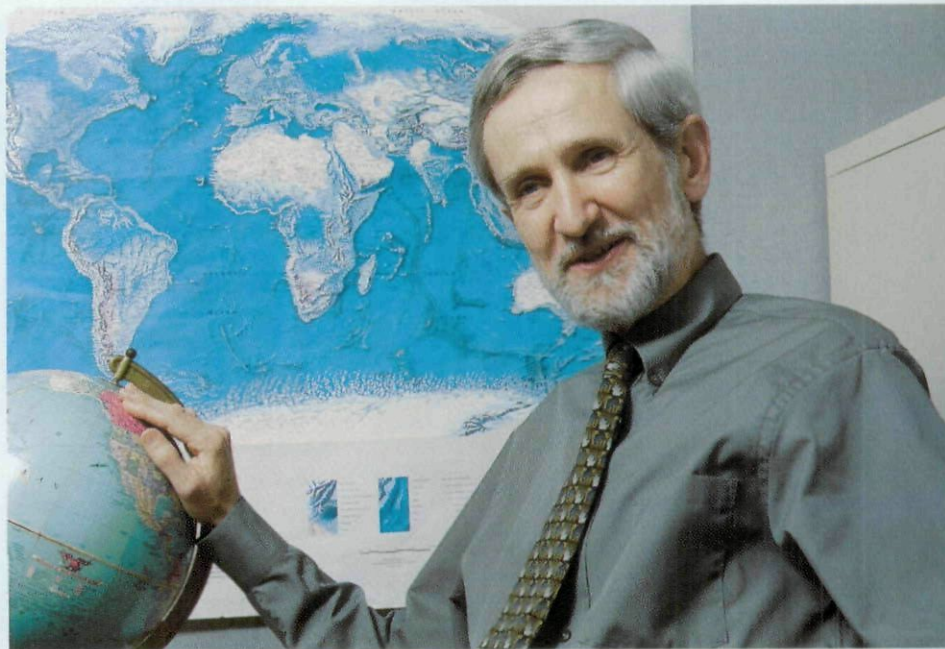
Covering the Climate: Beware of False Conflict

Expert Witness features top thinkers in other professions commenting on journalistic coverage of their world. In this issue, John Wallace is interviewed about global warming by Frank Houston, a Brooklyn writer who specializes in science.

You have written that where global warming is concerned, the media, "in their well intended efforts to air opposing points of view . . . tend to accentuate differences of opinion," and that this enables propagandists to create a false impression of conflict. Can you explain what you mean by this?

■ Seeking out and presenting contrasting opinions is just as important in scientific reporting as in other spheres. However, it's often not so much a matter of offering a balanced presentation of opposing points of view as illuminating a variety of scientific perspectives which may be distinct from one another without necessarily being contradictory. Many science reporters take this part of their job seriously and are very good at it. Problems arise when writers fail to distinguish between subtle differences in opinion and diametrically opposing views; when they include or place undue weight on the views of individuals who are not qualified to offer informed scientific opinions; and when they fail to make a clear distinction between scientific opinion and political opinion.

There are a lot of lobbyists and others with strong points of view who don't always deal with the nuances that responsible scientists do. Reporters inexperienced in dealing with the subject area are particularly prone to these problems because they don't know who to call upon for impartial scientific advice, and they're often unaware of the broader scientific and political context of the story they are writing. The fact that they're writing under



JOHN M. WALLACE is a professor in the Department of Atmospheric Sciences and co-director of the University of Washington Program on the Environment. He served as chairman of an independent panel of the National Academy of Sciences' National Research Council, which produced an influential report on global warming in January. Wallace's research specialties include the study of atmospheric general circulation, El Niño, and global climate.

He is a member of the National Academy of Sciences; a fellow of the American Academy of Arts and Sciences, the American Geophysical Union, and the American Meteorological Society; and a recipient of the AMS Rossby medal and AGU Revelle medal. His favorite high school teacher once advised him to go into journalism, and that if that didn't work, to try science. He received his Ph.D. from the Massachusetts Institute of Technology in 1966 and has taught at the University of Washington ever since.

pressure of tight deadlines doesn't help.

In some cases there's also a tendency for the press and particularly the high profile news media to pander to the public's fascination with debate and controversy for its own sake. My favorite example involves an incident that took place during the 1996 annual meeting of the American Meteorological Society in

Atlanta on a day when a major winter storm was making headline news. As rain poured down upon Atlanta in advance of the approaching Arctic blast, a young woman reporter from the local NBC station appeared on the scene and asked the executive director of the society, Richard Hallgren, if he would be willing to find her two meteorologists who would stage a

PETER YATES

debate for the evening network news. Her news director wanted one to argue that this storm was a consequence of global warming and the other to take the position that it had nothing to do with global warming. Hallgren warned her that no reputable meteorologist would argue that global warming orchestrates weather events, but offered to find two experts who would have interesting things to say on the subject. He asked George Philander of Princeton University and me to meet with her to see if we could work something out. After our fifteen-minute audition failed to produce the desired level of acrimony, Philander and I were dismissed, and the reporter expressed the network's disappointment to Hallgren for not delivering what it wanted, and left. She appeared a few hours later on the evening news, standing outside the conference hotel, huddled under an umbrella for protection from the drenching rain. She reported that she had just been inside the hotel interviewing the meteorologists as to whether they thought the featured storm was a consequence of global warming, and some thought it was and some thought it wasn't. There's no stopping a determined news director!

How does the report of the National Research Council (NRC) panel that you recently chaired figure into this story?

■ The NRC asked our panel to assess the state of the science relating to the monitoring of global temperature trends. We concluded that the warming indicated by the surface measurements is real and drew attention to the physical difference between the temperature trend at ground level and the corresponding trend in the atmospheric layer monitored by the satellites.

Have the panel's findings been reported accurately in the press?

■ By and large, I've been impressed with the genuine interest displayed by the journalists covering the story and by the accuracy of their articles. They challenged our panel with hard questions and, with very few exceptions, were willing to report our findings and recommendations in the way that we intended.

Are there any articles that were particularly exemplary?

■ Colin Macilwain's article in *Nature*



DOES GLOBAL WARMING REALLY EXIST?

Human activities have affected the global climate during the past thirty years, causing the stratosphere to cool significantly and the ozone layer to thin. There is a consensus about that. A majority of climate experts also believe that human activities have also contributed to a warming trend at the earth's surface.

Getting to a consensus on that point is not as straightforward as you might think. One reason: from 1945 to the late 1970s, the Northern Hemisphere experienced a weak cooling trend. Some scientists thought that aerosols might be the cause of it, while others thought it might be a manifestation of some kind of long-term cycle. Cooling trends in surface observations from the '50s to the '70s stimulated a flurry of popular articles and cartoons (one shown above) half-seriously suggesting that the cooling trend might portend a coming ice age. Ten years later, James Hansen (head of the NASA/Goddard Institute for Space Studies) argued persuasively in congressional testimony that the global climate was warming and that the buildup of greenhouse gases in the atmosphere was responsible. This warming was documented extensively in a 1990 report by the Intergovernmental Panel on Climate Change. A subsequent 1995 report issued by the IPCC showed that the warming was continuing and went on to conclude that "the balance of evidence suggests a discernible human influence on global climate."

When the 1995 IPCC report went to press, not all scientists were convinced that the warming at the earth's surface was real. Satellite measurements of the lowest layer of the atmosphere reported in 1993 indicated little, if any, warming since the first of a series of microwave-sounding instruments was put in place in December 1978. These findings aroused considerable scientific controversy, and have been widely cited by global warming skeptics and naysayers as evidence that the surface measurements are flawed and, more generally, to take issue with the IPCC's pronouncement that human activities are influencing climate. It was this controversy that prompted the National Resource Council to commission a report from the panel that I chaired. The report, released January 13, reaffirmed that the global warming indicated by the surface observations during the past twenty years is real.

—John Wallace

[1/20] is among the best at placing our findings in a broader scientific and political context. I also liked the way he relied on scientists for scientific opinions and upon policy experts for assessments of how our report is (or is not) likely to influence the policy debate on global warming. Our panel members intentionally steered clear of policy questions because we have no particular expertise in that arena. An informative Associated Press article by Josef Hebert [1/13] was instrumental in providing nationwide press coverage of the story, and articles by the *Houston Chronicle's* Bill Dawson [1/13] provided valuable additional details. Richard Harris's in-depth coverage of the report and its ramifications on National Public Radio was excellent and I've heard good reports about CNN's coverage.

Were there any notable problems with the press coverage of your report?

■ The most serious problems were related to headlines and copy editing. Alarmist headlines like GLOBAL WARMING REAL AND WORSENING [Reuters 1/13], PANEL: GLOBAL WARMING HAS ACCELERATED [USA Today 1/13], and EARTH REPORT SHOWS ACCELERATED WARMING [The New York Times 1/13] convey the impression that our panel found the rate of global warming to be more rapid than had previously been believed, whereas in reality it only reaffirmed that the warming reported in countless news articles dating back to 1988 is real.

What should journalists make of scientists who engage in political commentary?

■ It seems to me that relatively few of the scientists who engage extensively in political commentary are genuinely interested in and curious about climate variability with all its ambiguities and uncertainties. At heart, most of them are debaters, more interested in advancing a particular set of beliefs about the environment than advancing the state of environmental science. Journalists who allow the ongoing debate between these alarmists and naysayers in the scientific community to dominate and frame their coverage of global warming are likely to miss out on the really new developments in the science, which are not amenable to such simplistic characterizations.

Did the press do anything to present an illusion of conflict in the coverage of your NRC report?

■ One example is a quote from Arthur Robinson, a chemist affiliated with the

Oregon Institute of Science and Medicine: "This report proves that the NRC has been taken over by enviros," which appeared in *The Washington Post* [1/13] and a number of other newspapers. The rapid-fire nature and puzzling content of Robinson's statement leaves me wondering whether he had even read our report or even knew of the identity and credentials of its authors and reviewers when he was questioned by reporters. This interpretation is supported by the fact that Robinson didn't pick up on this theme in an op-ed piece that he co-authored for the editorial section of *The Wall Street Journal* a few days later. More generally, one could question whether an individual whose contributions to the global warming debate have largely been in the political arena should have been called upon by reporters to critique a document whose content is exclusively scientific.

Are reporters getting any better at sorting out the issues?

■ Within the past month two reporters have remarked to me that they no longer feel compelled to include quotes from greenhouse-warming skeptics or naysayers in all their articles and media coverage of this issue. By exempting themselves from the requirement to present both sides of the story in every article (as if both sides always existed and were equally worthy of consideration), they are assuming more personal responsibility for providing balanced news coverage. I see this practice as a plus for science reporting to the extent that the journalists who engage in it are fair-minded and well-informed, and that they insist on maintaining a clear distinction between scientific opinion and political opinion.

Do you have any other comments regarding the press coverage of climate related topics?

■ It seems to me that press releases exert a surprising amount of influence upon what gets reported. For example, articles published in *Science* or *Nature*, which impose embargoes on articles that have been accepted for publication and issue press releases in advance of the publication of each new issue, tend to receive a disproportionate amount of press coverage in relation to their significance. Journalists may not be aware that many scientists are hesitant to submit their most newsworthy articles to these high-profile, highly selective, interdis-

plinary journals for fear they will be rejected and because they resent the temporary loss of control implicit in the embargo agreement. In a similar manner, the work of scientists in the larger, more affluent universities and research laboratories with large and aggressive public relations offices tends to get more than its share of press coverage.

A recent example of the power of a press office is the January 19 release of a story by NASA's Jet Propulsion Laboratory showing how the pattern of sea level over the Pacific Ocean has been distorted by the recent two-year long "La Niña" event. To justify the newsworthiness of the satellite images produced by scientists at the lab, the news release indicated that they could be signaling the onset of several decades of the cold phase of the Pacific Decadal Oscillation, which would have implications for global-mean temperature and for climate over the United States. The story appeared on the front page of *The Washington Post* [1/20] under the headline U.S. MAY BE ENTERING NEW WEATHER ERA and there were similar articles in many newspapers around the country and in *Time* magazine. One can picture a reader wondering, "Do the scientists really have their act together? Just a week ago they were warning of accelerated global warming and now they're hinting that the next few decades are going to be cooler." The fact that the scientists quoted in the article disavowed the predictive value of the satellite imagery did little to counteract the message conveyed by the headlines, nor did the lack of any quantitative estimate of the amount of projected cooling, which turns out to be small in comparison to the rise in global mean surface temperature over the past twenty years.

In my experience, the best science reporters take notice of press releases but they don't allow them to dictate what they write about. They often generate story ideas of their own based on perusing the scientific literature and conversations with their own personal network of working scientists.

Do scientists mind being bothered by these calls from journalists?

■ The journalists aren't the only ones who profit from these conversations. Interacting with journalists forces scientists to think more critically about the manner in which they communicate their findings and in some cases they can even uncover significant research issues that deserve to be addressed. ■

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