
Climate Change Science and Policy

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Newspaper and Television Coverage

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Introduction

During the last two decades, social scientists have conducted an impressive number of studies on U.S. mass media coverage of climate change. In this chapter, we summarize some of the more robust findings from research on the amount and content of this coverage.¹ We limit our review to newspaper and television coverage for two reasons. First, despite rising numbers of people using the Internet, newspapers and television news remain the two most widely used media sources. Second, most scholars to date have focused their research on television news and especially newspapers. We end this chapter with some brief suggestions for increasing the quality of mass media coverage of climate change to increase public awareness and understanding.

The Amount of Climate Change Coverage

Although some climate scientists had been working to focus public attention on climate change throughout the 1970s and 1980s, mass

media attention to climate change was minimal prior to 1988.² Then, as seen in figure 40.1, climate change experienced a rush of media attention between the middle of 1989 and early 1990 for several reasons.³ Concerned scientists and environmental activists effectively connected climate change to more popular issues such as nuclear winter and ozone depletion.⁴ Also, the extreme drought during the summer of 1988 led many Americans to feel greater vulnerability to climatic forces.⁵ Finally, in his dramatic testimony in front of a Senate committee in June 1988, James Hansen attributed the abnormally hot weather plaguing our nation to global warming, confirming some Americans' fears.⁶

Between 1993 and 1996, media attention decreased to levels lower than the peak coverage from 1990 to 1992 but higher than pre-1988 levels.⁷ This is consistent with the expectations of the issue-attention cycle model and the public arenas model.⁸ Both perspectives predict that after an initial media explosion, later media coverage will experience short bursts of increased attention corresponding with significant social or political events; yet, these short bursts rarely are expected to ex-

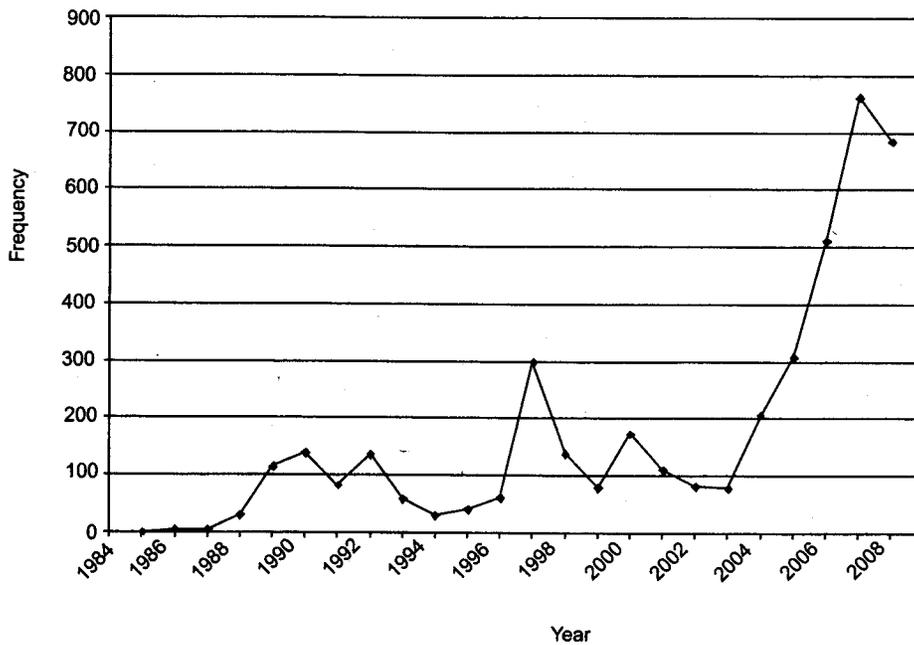


FIGURE 40.1. Frequency of Climate Change News Articles in Top Five Circulating U.S. Newspapers, 1985 to 2006. Data were compiled for the *USA Today*, *Wall Street Journal*, *New York Times*, *Los Angeles Times*, and *Washington Post* for all news articles containing the terms “climate change” or “global warming” in the headline or lead paragraph.

ceed that of the initial peak. However, we see that the case of climate change in major newspapers does not follow this pattern.

The total number of climate change stories for 1997 more than doubled the previous peaks in 1990 and 1992, but has been overshadowed by the unprecedented upsurge in coverage in recent years. We may attribute the 1997 peak almost solely to the events surrounding the December 1997 Kyoto Conference, which established climate change as a major issue in global political arenas. Yet, newspaper coverage of climate change in the six years following Kyoto dropped to levels equivalent to those of the early 1990s. However, beginning in 2004, we have experienced a sizable spike in climate change articles. Unlike the 1997 peak, no one event or story has driven this increased media attention. Indeed, newspaper editors have published climate change news articles in all sections of these major newspapers, on topics including sci-

ence, entertainment, sports, health, economics, and lifestyles. Arguably, climate change appears to have become routinized, whereby editors perceive it as a wide-ranging, newsworthy topic deserving regular attention in and of itself, independent of any new event or new finding.

Some Existing Questions for Future Research

Reporters have been writing news stories about a large range of social, political, economic, and cultural topics related to climate change. It appears as though climate change coverage is becoming more ubiquitous, not just in newspapers but also in popular magazines, radio news, and television news. This raises important questions. What is fueling this trend of increasing media coverage? How long will it continue? Might there eventually

be some degree of saturation or burnout among news audiences? Is all media coverage equal, and what impact will this media coverage have on American public opinion and policy making?

What fuels media coverage of climate change continues to be an important question, and existing theoretical perspectives often fall short of a satisfactory explanation. The relationship between meteorological phenomena and climate change coverage in newspapers and television news is far from clear. For instance, an investigation of the relationship between local temperature in New York City and the District of Columbia and the coverage of climate change in the *New York Times* and *Washington Post*, respectively, found no relationship between temperature and coverage in Washington, but did find a modest positive relationship in New York City.⁹ Weather was “undoubtedly *not* the most important determinant of attention to climate issues.”¹⁰ Instead, political events and the release of scientific reports are more likely to influence the amount of attention climate change receives.¹¹ Yielding similar results for television media, a study covering the period 1968 to 1996 found no association between U.S. network television coverage of extreme weather events and the amount of climate change coverage.¹² These initial findings about a possible relationship between meteorological events and climate change coverage in newspapers and television news should motivate scholars to systematically investigate the extent to which recent extreme meteorological phenomena (e.g., the 2004 tsunami and the 2004 and 2005 Atlantic hurricane seasons) have had an influence on climate change coverage in the mass media.

Two related factors conspire against a clear explanation of the amount of climate change media coverage since the mid-1990s. First,

the two main theoretical perspectives guiding much of this research (the issue-attention cycle and the public arenas model) say little about the amount of media attention an issue garners after its initial media explosion. Indeed, the sheer magnitude of climate change news articles in 1997 and since 2004 contradicts the expectations of both perspectives, thus demanding substantial theoretical revision.

Second, social scientists have not yet analyzed mass media coverage since the late 1990s as systematically and in the same detail as they did for coverage a decade earlier. This gap is significant since two major IPCC reports have been published in this time period.¹³ Greater analysis of mass media coverage during this time will help us examine the reasonable assertion that the publication of scientific reports significantly affects climate change news coverage.¹⁴ Furthermore, the large increase in climate change news coverage in 2006 and early 2007, while Al Gore’s *An Inconvenient Truth* was making millions of dollars in theaters and then winning Academy Awards, calls for an analysis of the roles of political elites and/or social celebrities for driving media attention.

Thus, we put a premium upon examining the long-term trends in U.S. mass media coverage of climate change. One promising example of such research indicates that U.S. coverage is characterized by a cyclicity that is tied to specific journalistic cultural practices, a topic to which we turn in the next section.¹⁵

The Content of Climate Change Coverage

Early news stories on climate change relied heavily on conventional climate scientists as sources. Over time, however, political actors

and corporate representatives edged out scientific experts as the dominant sources in these news stories.¹⁶ With this shift in sources around 1991 to 1992, the news media altered its focus from stories about climate science to stories about policy responses.¹⁷ At the same time, opposition to mainstream climate science began to emerge with the growing concern over the economic costs of binding action and the ascent of the George H. W. Bush administration.¹⁸ In general, support for mainstream climate science knowledge claims was greater in news stories than in opinion-editorial articles, where the ideas of a few climate change contrarians flourished.¹⁹

Important Influences on Media Content

In general, U.S. mass media coverage of climate change since the early 1990s has focused disproportionately upon the uncertainty of climate science knowledge claims, scientific controversy, and the economic costs of binding international action.²⁰ For example, the *New York Times* emphasized conflicts between scientists and politicians and potential negative impacts of climate change policy significantly more than did the French newspaper *Le Monde*.²¹ Likewise, the *New York Times* and *Washington Post* reported uncertainty about global warming theory in 57 percent and 58 percent of their articles, respectively, while Finland's *Helsingin Sanomat* and the *New Zealand Herald* each only highlighted such uncertainty in 9 percent of their climate change articles.²² In general, a pro-corporate bias often arises in newspaper coverage of climate change in the *Christian Science Monitor*, *New York Times*, *San Francisco Chronicle*, and *Washington Post*.²³

Many scholars have tried to explain these trends by highlighting (1) the political economy of American mass media; (2) prevailing journalistic norms in America; (3) the occupational culture within American journalism; and (4) the rise of organized interests attempting to exploit these factors for their own gain.

In explaining the pro-corporate biases and persistence of uncertainty in U.S. news coverage of climate change, some researchers have focused on the broader structure of the media and corporate power in the United States.²⁴ Since the U.S. economy is much more dependent upon fossil fuels than are the economies of Finland and New Zealand, economic realities influence trends in media coverage: "There is a vested interest on the part of the petrochemical industries to extend the debate and to sow uncertainty regarding the overwhelming scientific consensus regarding global warming. Without such a vested interest, New Zealand and Finland have media that generally follow scientific consensus on the matter."²⁵

Second, some scholars have argued that prevailing American journalistic norms facilitate the perpetuation of dominant ideologies and the status quo.²⁶ Central to this blueprint is the media's "balancing norm," or the equation of "objectivity" with presenting "both sides of the story." Thus, news stories on controversial topics follow a pro-and-con model, where extreme views are contrasted and the reporter concludes by claiming the issue is unresolved—allowing the dramatic narrative to continue but also instilling confusion and passivity in the general public.²⁷

Several scholars have expressed concern about how the media's balancing norm in science reporting produces what we refer to above as the "dueling scientists scenario."²⁸ Reporters solicit statements from scientists

holding the most extreme views regarding a scientific issue, even when most scientists hold moderate positions between the extremes and may tend toward a consensus position. This false dichotomy confounds what is widely accepted knowledge, what is a highly speculative claim, and what is a value judgment.²⁹

Third, other scholars also have claimed that the occupational dynamics and culture of American journalism further facilitate recent trends in climate change coverage in the U.S. mass media. A few studies have begun to engage news reporters directly to better understand what they know and how they make decisions in the contexts of power and culture described above. Indicating the difficulty in separating out science and politics in climate change, weather forecasters, a group with expectedly high science literacy, had widespread misconceptions about basic climate science, which were connected to the forecaster's values and beliefs about climate change.³⁰ Those television and newspaper reporters who use scientists as sources and spend the most time reporting environmental issues had the greatest amount of knowledge about climate science and areas of consensus.³¹ More than a third of surveyed reporters identified newspapers, which often reported "duels," as the main source of their climate change information; only 20 percent of reporters identified scientists as their primary information source, and only 15 percent relied on science journals.

The practice of using other newspaper reports as a source of information is a troubling one as "food chain" journalism is likely to decrease the accuracy of the story. Wire services play a significant role in this; an explosion of misinformation ripples through the mass media when wire services or news service providers get significant amounts of informa-

tion in their news stories from climate change contrarians with known ties to the fossil fuels industry.³²

Fourth, anti-environmental groups, such as the American conservative movement and the fossil fuels industry, have mobilized since the early 1990s to challenge the legitimacy of climate science knowledge claims supporting the assertion that global warming is a real problem.³³ These vested interest groups were successful in capitalizing on the pro-business bias and existing journalistic norms to promote the voices of climate change contrarians.³⁴ Trends in the use of two groups of scientific sources (five elite climate scientists and five climate change contrarians) in all climate change news articles from 1990 to 1997 in seven of the top circulating U.S. newspapers reveal that the five contrarians achieved approximate parity in citations with some of the most renowned experts in the field. The 1994 Republican takeover of Congress and the concomitant rightward shift in national political culture created opportunities for anti-environmental groups to aggressively manipulate the journalistic balancing norm that produces the dueling scientists scenario.

While some anti-environmental groups have accepted the international scientific consensus on climate change, a surprising number of organizations in the American conservative movement (e.g., Competitive Enterprise Institute) and in the fossil fuels industry (e.g., ExxonMobil) continue to challenge climate science in order to prevent the likely regulation of carbon dioxide emissions.³⁵ More recently, the increasing amount of mass media coverage devoted to the politicization of climate science, such as NASA's efforts to keep climate scientists from telling the truth about their findings, may increase the public's awareness of how political actors manipulate

science to promote their own agenda: "Complaints about the Bush administration's interference with communication of climate science have led to a 'public accountability' frame that has helped move the issue away from uncertainty to political wrongdoing."³⁶

Increasing the Quality of Climate Change Coverage

Given that most Americans get their information about climate change from mass media and since most Americans misunderstand climate change, we argue for increasing the quality of mass media coverage of climate change.³⁷ To this effect, we end with four suggestions for increasing public awareness and understanding of climate change.³⁸

Newspapers and television impose great limitations on scientific communication. Television news stories are often less than one minute. Newspaper articles are written for a fifth-grade level of comprehension. At a minimum, all parties responsible for communicating climate change to the general public (henceforth "communicators") should be aware of the nature and extent of these limitations. We may increase this awareness by better educating scientists about journalistic norms and journalists about scientific norms. Moving beyond awareness to providing scientists with the tools they need to best communicate within these constraints, such as how to prepare for an interview, is also an important step.

Second, given that stories about climate change are steeped in scientific details, communicators should convey the scientific consensus and limitations to current knowledge according more to scientific norms of evidence rather than to journalistic norms of

"balance." Whenever possible, communicators should help increase the scientific literacy of their mass audience by explaining how scientists become more confident about knowledge claims, especially regarding the use of probability statements. Furthermore, communicators should clarify that just because the implications of scientific findings may be controversial with some groups in society, this does not mean that the actual scientific theories, methods, and bodies of evidence are controversial within the scientific community.

Third, communicators should consistently expose the motivations, strategies, and goals of the climate change contrarians who lend pseudoscientific legitimacy to attempts at obfuscating scientific communication for the narrow material and ideological interests of fossil fuels organizations and conservative think tanks.³⁹ In September 2006, Britain's leading scientific association, the Royal Society, disclosed its findings that ExxonMobil had funded thirty-nine organizations that misrepresent the consensus on climate change and asked ExxonMobil to stop these practices.⁴⁰ In January 2007, the Union of Concerned Scientists in the United States followed suit by blowing the whistle on ExxonMobil for the \$16 million it provided between 1998 and 2005 to forty-three ideological and advocacy organizations to mislead the U.S. public by discrediting the science behind global warming.⁴¹

Finally, communicators should acknowledge that the crux of the climate change debate at this time is a conflict over values, not science. By putting the conflicting values directly in the public eye, communicators may more honestly discuss the larger political, cultural, social, and economic contexts of climate change. Along these lines, communicators should highlight what different individuals and groups (e.g., organizations, cities, and

states) are doing in response to climate change. Communicators could use varied cases embodying different values to promote an insightful national discussion of the political, cultural, social, and economic contexts of climate change.

Notes

The sections on "The Amount of Climate Change Coverage" and "The Content of Climate Change Coverage" draw upon a previous work by one of the authors: McCright, A. M., and R. E. Dunlap. 2000. Challenging global warming as a social problem: An analysis of the conservative movement's counter claims. *Social Problems* 47, 499–522.

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