

Balance as bias: global warming and the US prestige press[☆]

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Abstract

This paper demonstrates that US prestige-press coverage of global warming from 1988 to 2002 has contributed to a significant divergence of popular discourse from scientific discourse. This failed discursive translation results from an accumulation of tactical media responses and practices guided by widely accepted journalistic norms. Through content analysis of US prestige press—meaning the *New York Times*, the *Washington Post*, the *Los Angeles Times*, and the *Wall Street Journal*—this paper focuses on the norm of balanced reporting, and shows that the prestige press's adherence to balance actually leads to biased coverage of both anthropogenic contributions to global warming and resultant action.

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1. Introduction

On June 11, 2001, George W. Bush stated that, “the United States has spent \$18 billion on climate research since 1990, three times as much as any other country, and more than Japan and all 15 nations of the EU combined” (*New York Times*, 2001, p. A12). During this time, top climate change scientists from around the globe—comprising the United Nations-sponsored Intergovernmental Panel on Climate Change (IPCC)—improved understanding of global warming, and produced three major reports and many related documents. With increasing confidence, the IPCC has asserted that global warming is a serious problem that has anthropogenic influences, and that it must be addressed immediately. In the managerial scientific discourse represented by the IPCC (Adger et al., 2001), a remarkably high level of scientific consensus has emerged on these two particular issues.¹ D. James

Baker, administrator of the US National Oceanic and Atmospheric Administration, has said about global warming that “[t]here's a better scientific consensus on this than on any issue I know—except maybe Newton's second law of dynamics” (Warrick, 1997, p. A1).

However, on December 3, 2002, the *Washington Post*, citing “numerous uncertainties [that] remain about global warming's cause and effect”, top administration officials communicated George W. Bush's call “for a decade of research before the government commits to anything more than voluntary measures to stem carbon dioxide and other greenhouse gas emissions” (Pianin, 2002, p. A8). This statement was not only a backhanded swipe at the findings of scientists concerned about global warming, but it was also the spectacular culmination of a complex and perpetually unfolding discursive process propagated by the prestige press in the United States.

The continuous juggling act journalists engage in, often mitigates against meaningful, accurate, and urgent coverage of the issue of global warming. Since the general public garners most of its knowledge about science from the mass media (Nelkin, 1987; Wilson, 1995), investigating the mass media's portrayal of global warming is crucial. The disjuncture above is one illustration that—through the filter of balanced reporting—popular discourse has significantly diverged from the scientific

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¹ Adger et al. discuss different climate change discursive regimes. They write, “The managerial discourse draws its authority from science. It relies on the apparent scientific consensus suggesting that climate change is a reality” (Adger et al., 2001, p. 699). This paper focuses on this dominant managerial discourse. See Forsyth (2003) for connected discussions of ‘boundary organizations’.

discourse.² To date, this disconnection³ has played a significant role in the lack of concerted international action to curb practices that contribute to global warming.⁴

This paper explores the notion that the US prestige press—by which we mean the *New York Times*, the *Washington Post*, the *Los Angeles Times*, and the *Wall Street Journal*—has contributed in significant ways to failed discursive translations regarding global warming. These press outlets have done this by adhering to the journalistic norm of balanced reporting, offering a countervailing “denial discourse”—“a voluble minority view [that] argues either that global warming is not scientifically provable or that it is not a serious issue”—roughly equal space to air its suppositions (Adger et al., 2001, p. 707). The ‘balancing’ of scientific findings and the counter-findings results, in large part, from an accumulation of tactical media responses and practices guided by widely accepted journalistic norms and values.

2. Global warming and journalistic norms

Much research has examined the mass media’s ability to accurately or sufficiently report scientific findings regarding global warming, greenhouse gases, and climate change (Bell, 1994a,b; Dunwoody and Peters, 1992; Nissani, 1999; Miller and Riechert, 2000). A number of studies have delved beneath this surface-level exploration to identify factors that lead to inaccurate or otherwise insufficient coverage (Wilson, 2000; Cottle, 2000; Trumbo, 1996). “Science,” as Ungar (2000, p. 308) has asserted, “is an encoded form of knowledge that requires translation in order to be understood”. Many studies have addressed the transmission failures from the scientists to the media (McComas and Shanahan, 1999; Ungar, 1992, 2000; Zehr, 2000) and the media to the public (i.e. audience receptiveness to claims-making

activity) (Stamm et al., 2000; Wilson, 1995, 2000; Bell, 1994b; Ungar, 1992, 2000).

The mass media play an important role in the construction of environmental issues and problems (Schoenfeld et al., 1979; Spector and Kitsuse, 1977). Accordingly, prestige-press coverage of global warming is not just a collection of news articles; it is a social relationship between people that is mediated by news articles. The parameters of this social relationship are defined, in large part, by the many journalistic norms and values that both affect what is deemed news and influence how that news is framed (Gans, 1979; Miller and Riechert, 2000).

While some research has focused on the cultural and philosophical systems that affect news coverage (Wilkins, 1993; Gans, 1979; Schudson, 1978), this study explores the journalistic norms that influence this coverage. Bennett (1996) suggests that the content of news is affected by three normative orders that individual journalists must contend with: *political norms* (the idea that the proper role of the mass media is to provide the citizenry with political information that will lead to enhanced accountability on the part of elected officials), *economic norms* (the constraints on journalists working within a capitalist society in which reporting must be both efficient and profitable), and *journalistic norms* (objectivity, fairness, accuracy, balance).

Clearly, while affecting the content of US newspapers, many of these norms are interrelated and therefore very difficult to disentangle; however, we focus on the journalistic norm of balance in this study. According to Entman (1989, p. 30): “Balance aims for neutrality. It requires that reporters present the views of legitimate spokespersons of the conflicting sides in any significant dispute, and provide both sides with roughly equal attention.” Similarly, Gans (1979, p. 175) writes: “Political balance is usually achieved by identifying the dominant, most widespread, or most vocal positions, then presenting ‘both sides.’”⁵ In terms of the ‘balanced’ coverage of science in the mass media, Dunwoody and Peters (1992, p. 210) assert that balance is often times “a surrogate for validity checks” that results because “the typical journalist, even one trained as a science writer, has neither the time nor the expertise to check the validity of claims herself.” Balanced coverage does not, of course, always mean accurate coverage.

In fact, when it comes to coverage of global warming, balanced reporting can actually be a form of informational bias. Despite the highly regarded IPCC’s consistent assertions that global warming is a serious

²This paper defines discourse as a recognizable network of questions, assumptions, reference points, and language games employed by a given group of people that enables them to organize and understand the world (Wallace, 2002). For a more detailed, and very useful discourse analysis that traces the discourses on climate change in science, politics, and the mass media, see Weingart et al. (2000).

³Dickson (1984) alludes to this as the “value gulf” between a thoroughly corporatized, market-driven scientific community and the needs of the general citizenry. Dickson argues that “relying on market forces to determine research and development priorities can skew such priorities away from areas where, although the social needs are pressing, the economic incentives to tackle those needs are weak” (p. 52).

⁴This is to say that the journalistic norm of balanced reporting has contributed to a skewed public understanding of decisions regarding action, and that it significantly contributes to complex and non-linear causes and feedbacks affecting popular discourse and perception. It is not to imply that there has been no action, or that there is linear causality at work here.

⁵‘Balance’ is a complex term beyond its conceptual departing point of ‘fairness’. For example, challenges arise when grappling with the introduction of new and complex ideas into the discourse. These ideas take more time to explain than old ideas that support the status quo, so in this sense, equal time falls in favor of people proffering easily digestible, not ideologically contrary, viewpoints.

problem with a “discernible” human component that must be addressed immediately, balanced reporting has allowed a small group of global warming skeptics to have their views amplified.

Ross Gelbspan (1998, pp. 57–58) has asserted, “The professional canon of journalistic fairness requires reporters who write about a controversy to present competing points of view. When the issue is of a political or social nature, fairness—presenting the most compelling arguments of both sides with equal weight—is a fundamental check on biased reporting. But this canon causes problems when it is applied to issues of science. It seems to demand that journalists present competing points of views on a scientific question as though they had equal scientific weight, when actually they do not”. In this paper we endeavored to see how this assertion—while reasonable at its surface—played out empirically.

3. A word about Bias

When we employ the term ‘bias’ we are not referring to ideological bias. Whether the prestige press has a liberal or conservative bias may be inherently irresolvable. We agree with media scholar W. Lance Bennett (2002, p. 44) when he writes:

Some variations in news content or political emphasis may occur, but they can seldom be explained as the result of journalists routinely injecting their partisan views into the news. To the contrary, the avoidance of political partisanship by journalists is reinforced, among other means, by the professional ethics codes of journalists, by the editors who monitor their work, and by the business values of the companies they work for.

When we use the term ‘bias’ we are instead referring to informational bias, which Entman (1989, p. 48) suggests is the “joint product of internalized professional values and of newsgathering routines.” This leads to distorted news, and, in fact, Gans (1979, pp. 304–305) equates bias loosely with “distortion.” He argues that while “objective or absolute nondistortion is impossible,” the notion of bias-as-distortion “is nevertheless valid, but only as a relational one.” This non-absolute conceptualization of bias, rooted in a relational perspective, aligns with the notion of bias we employ in this study. Information bias is therefore correctly seen as a historical product of the ever-emergent social relations between mass-media workers, scientists, politicians, and citizens. More concretely, bias is the divergence of prestige-press global-warming coverage from the general consensus of the scientific community.⁶ Importantly,

informational biases “make news hard to use as a guide to citizen action because they obscure the big picture in which daily events take place” (Bennett, 2002, p. 44).

4. Methodology

This study investigates the US prestige-press coverage of global warming between 1988 and 2002 through quantitative methods. This approach illuminates the differences between the discourse in the US prestige press and generally agreed-upon scientific discourse, while mapping out patterns of US prestige-press coverage of global warming over time. The project takes empirical steps to unpack the journalistic norm of balance, excavating this norm to see if its application is problematic when discussing the human contribution to global warming and resulting calls for action.

4.1. Sampling

The empirical evidence in this study comes from a systematic reading of newspaper articles—the unit of analysis—which were randomly selected from four major US newspapers: the *New York Times*, the *Los Angeles Times*, the *Washington Post* and the *Wall Street Journal*. For reasons of geography, influence, and circulation, we consider these newspapers to be an important and powerful swathe of the prestige press in the United States.⁷

Our sample consists of prestige-press news stories from 1988 to 2002. We selected 1988 as a starting point for our analysis for three reasons: First, in 1988 NASA scientist James Hansen testified to US Congress regarding the presence of anthropogenic global warming and the immediate need for action (Ungar, 1992); second, in this year, British Prime Minister Margaret Thatcher, warned in a speech to the Royal Society in London that with global warming, “we may have unwittingly begun a massive experiment with the system of the planet itself” (Leggett, 2001, p. X) and; third, in the summer of 1988 a major heat wave and drought hit North America, sensitizing the public to the idea of global warming (Pearce, 1989).

We compiled our sample by using the search term ‘global warming’ in the *Lexis-Nexis* advanced search engine, the *National Newspaper Index*, and *ABI/Inform*.⁸ We opted to analyze news stories, thereby excluding opinion editorials, letters to the editor, book reviews and editorial columns (Hedman, 1981). We also omitted stories from the Style/Fashion, Real Estate, and Sports

⁶Thus, in a sense, biased coverage means distorted or inaccurate coverage, though one must keep in mind that, on a more abstract level, no absolute standard of non-distortion exists.

⁷Wilkins (1993) and Trumbo (1996) use similar prestige-press configurations to represent the elite national media.

⁸Through these databases, we were able to read the entire text of the article. While photographs that might have appeared in a given article were not available, their captions were included. Hence, caption descriptions were also incorporated into the analysis.

Table 1
Content analysis measures

Measure #1: Coverage of debate over anthropogenic contributions to global warming

- Only presents argument that anthropogenic global warming exists, clearly distinct from natural variations
- Presents both sides, but emphasizes that anthropogenic global warming exists, still distinct from natural variation
- Presents a balanced account of debates surrounding existence of anthropogenic global warming
- Presents both sides, but emphasizes dubious nature of the claim that anthropogenic global warming exists

Measure #2: Coverage of decisions regarding action on global warming

- Dominant coverage of decisions/assertions regarding immediate/mandatory action to deal with global warming
- Balanced accounts of various decisions regarding action
- Dominant coverage of decisions/assertions regarding cautious/voluntary approaches to deal with global warming

sections, since global warming is typically a peripheral issue in those sections. Within these selection parameters, 3543 news articles appeared from 1988 to 2002. Of these articles, approximately 41% came from the *New York Times*, 29% from the *Washington Post*, 25% from the *Los Angeles Times*, and 5% from the *Wall Street Journal*. Our sample contained 636 articles, which is 18.4% of the population. This was a random sample, and therefore the sample was larger in years where news coverage of global warming was greater.⁹ This procedure inherently enabled cluster sampling, as prestige-press coverage increased during certain key events and periods.¹⁰

4.2. Coding and measures

We approached the journalistic norm of balanced reporting in the US prestige press through two content analysis measures (Table 1). The first such measure captures the debate of the *existence* of anthropogenic global warming. The second measure analyzes *actions* regarding global warming. Our central measures emerged from a two-phase pilot testing procedure across all years in the population, as well as pre-existing familiarity with key elements of global warming coverage and debates.¹¹

4.3. Analysis

We first analyzed our data set through descriptive statistics. Then, we investigated relationships between

global warming coverage in the US prestige press and the generally agreed-upon beliefs in the scientific community. We carried out significance tests to compare the two discourses by year. This test allowed for the comparison of the proportions of cases classified as ‘balanced coverage’ between the US prestige-press discourse and the scientific discourse, for each of the particular response variables.¹²

In order to compare the discourse being propagated in the US prestige press to the scientific discourse, we must first outline the general consensus of the scientific community regarding the existence of anthropogenic climate change, and decisions regarding action. Recognizing the challenges of characterizing the scientific community, this study focused on the managerial scientific discourse of groups such as the IPCC (Adger et al., 2001). To define the views of the scientific community for the first two content analysis measures, we drew primarily from reports and findings of the IPCC (Carter, Parry, Harasawa and Nishioka, 1994; Houghton et al., 1995; Houghton, Callander and Varney, 1992; Houghton et al., 2001; Houghton, Jenkins and Ephraums, 1990; McCarthy, Canziani, Leary, Dokken and White, 2001; Nakicenovic and Swart, 2000; Watson, Zinyowera and Moss, 1997). For the second measure, we also incorporated assessments from relevant journal articles and reports (e.g. Parry et al., 1999; Easterling et al., 2000; Falkowski et al., 2000; Santer et al., 1996).¹³ Consensus within this managerial discourse is quite clear and consistent across these content analysis measures.

⁹ In order to create the sample, we selected every sixth article as they appeared chronologically. We began this data collection by systematically opting in from a random starting point in January 1988.

¹⁰ Some examples of these event-induced clusters are the Earth Summit in Rio de Janeiro, Brazil in June of 1992, the Kyoto Climate Summit in December 1997, and the climate change conference in Bonn, Germany and G-8 Summit in Genoa, Italy in July 2001.

¹¹ In our validity and reliability pre-testing we analyzed articles across all years in the population. This two-phased pilot testing also took chance into account, accounting for spuriousness (Stinchcombe, 1968). Each author independently undertook content analysis coding on the pre-test sample, and this testing achieved an intercoder reliability rate of 93%.

¹² This test is similar to a two-sample means test.

¹³ Stephen Schneider (2001, p. 339) emphatically states, “The public is often so confused by...the media’s dutiful reporting of polarized extreme views (or their attempts to ‘balance’ the conclusions of a 500-scientist assessment with a few outlier Ph.D.s who say “It ain’t so!”) that political leaders ask groups such as the US National Research Council or the IPCC to help society sort out where current consensus really lies.”

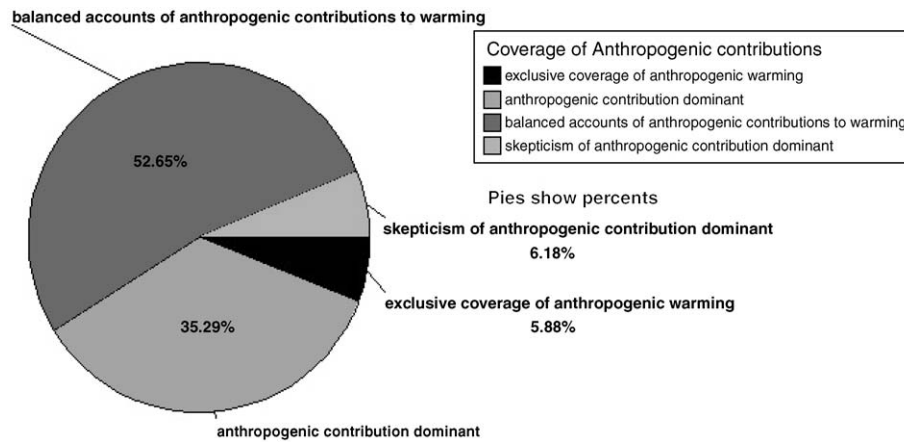


Fig. 1. US prestige-press coverage of existence of anthropogenic contribution to global warming 1988–2002; $n = 340$ (this figure illustrates that 52.65% of the sample news article demonstrated balanced coverage of anthropogenic contributions to global warming, and 35.29% contained dominant coverage of anthropogenic contributions to global warming, while 6.18% had dominant coverage of skepticism of anthropogenic contributions, and 5.88% contained exclusive coverage of anthropogenic contributions).

5. Results

5.1. Balance as bias: anthropogenic global warming coverage

We first examined how the idea of anthropogenic global warming was covered in the US prestige press (Fig. 1). As previously noted, there is much agreement in the managerial scientific community that human actions are contributing to global warming. But was this consensus reflected in news coverage? Or, is the journalistic norm of balanced reporting—telling ‘both’ sides of the story—a mediating variable that skewed and distorted global warming coverage? In other words, was coverage of global warming ‘balanced,’ and therefore actually informationally biased?

We found that in the majority (52.65%) of coverage in the US prestige press, balanced accounts prevailed; these accounts gave “roughly equal attention” to the view that humans were contributing to global warming, and the other view that exclusively natural fluctuations could explain the earth’s temperature increase. This supports the hypothesis that journalistic balance can often lead to a form of informational bias. Coverage that emphasized the existence of anthropogenic contributions to global warming—as distinct from natural variation—but still presented both sides of the debate represented over a third (35.29%) of the relevant articles sampled. This type of coverage most closely mirrored the scientific discourse itself. Meanwhile, at the two extremes of coverage, 6.18% of all stories emphasized the dubious nature of the claim that anthropogenic contributions to global warming exist, and 5.88% carried exclusive coverage of the

Table 2

The US prestige-press discourse and scientific discourse regarding the existence of anthropogenic contributions to global warming: tests of difference by year, 1988–2002

Year	Coverage of existence of anthropogenic global warming
1988	1.61
1989	1.48
1990	4.77***
1991	3.33***
1992	6.41***
1993	3.70***
1994	4.35***
1995	4.16***
1996	4.81***
1997	4.72***
1998	3.75***
1999	2.34*
2000	5.76***
2001	4.03***
2002	2.34*

Note: The number in each cell represents the respective z -score, comparing proportions of balanced reporting in each discourse by year. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

existence of anthropogenic contributions to global warming.¹⁴

We then examined the significance of this difference in discourse between the scientific community and the US prestige press (Table 2). Through comparison of proportions of ‘balanced coverage’ in each year, we

¹⁴For more discussion of why and when journalists consciously adhere to balanced reporting in other environmental stories, see Dearing (1995).

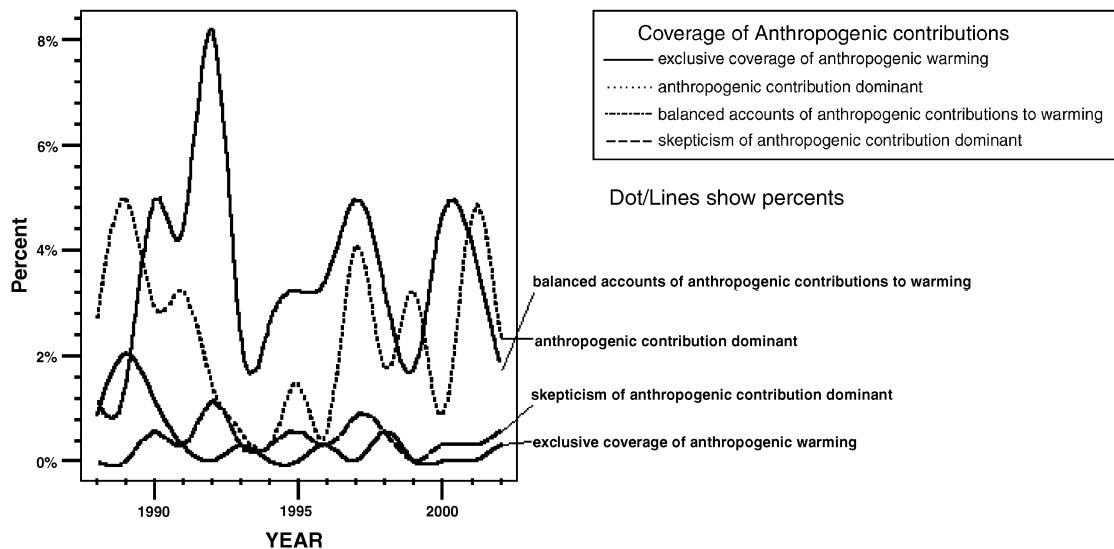


Fig. 2. US prestige-press coverage of existence of anthropogenic contribution global warming by year 1990–2002, by percent of total number of cases; $n = 340$.

found the differences between two discourses to be statistically significant different from 1990 to 2002.

We also looked at the year-by-year distribution of coverage of the existence of anthropogenic contributions to global warming (Fig. 2). When the issue of global warming first rose to prominence in the US prestige press because of the aforementioned events of 1988, the focus was on this anthropogenic contribution. More specifically, in 1988 and 1989, the vast majority of coverage emphasized anthropogenic contributions to global warming, thereby mirroring the scientific discourse of the time.

The relative novelty of the phenomenon may help explain this trend, but political and electoral considerations were also important. When campaigning in 1988, presidential candidate George H.W. Bush's rhetoric indicated that global warming was a serious problem. On that campaign trail, Bush vowed the administration would deal with global warming, promising to "fight the greenhouse effect with the White House effect" (Peterson, 1989, p. A1). With the drought occurring and even political conservatives like Margaret Thatcher pointing to the problem's seriousness, to do otherwise would have been politically unwise.

A November 26, 1988 *New York Times* article, "Common Ground Seen on Warming of Globe", typifies the approach that emphasized the claim that humans are playing a crucial role in the warming of the planet. In the article, the author points to "mounting evidence that carbon dioxide from the burning of fossil fuels and other industrial gases are accumulating in the atmosphere, where they trap heat from the sun like a greenhouse. Many scientists predict that the greenhouse effect will cause the earth's temperature to rise within a century to levels unreached in human experience"

(Shabecoff, 1988, p. A8). A September 1, 1988 *Los Angeles Times* article added that "the nation is taking notice" and that "[i]nterest in global warming has exploded in Congress, the news media and among world organizations, rapidly taking the topic from the laboratory to the living room" (Dolan and Lawrence, 1988, p. A1).

At that time, optimism was in the air, too, though. Soon after James Hansen's congressional testimony, two US Senate bills were introduced to combat global warming (Weisskopf, 1988). In prestige-press accounts there was an emphasis on viable solutions to meeting emissions reductions goals. Even the nuclear industry was offering up ways to deal with this 'new' environmental quandary, arguing that nuclear power plants were the one option capable of reducing the production of greenhouse gases caused by the burning of fossil fuels.

However, by the time of the release of the IPCC First Assessment Report in August of 1990, coverage had shifted to significantly 'balanced' accounts. From 1990 forward, this shift can be explained by the increasingly complex politicization of the global warming issue (Trumbo, 1996), and the coalescence of a small group of influential spokespeople and scientists emerged in the news to refute these findings (Gelbspan, 1998; Leggett, 2001; Schneider, 2001). Therefore, through the well-publicized research efforts of skeptics, whom Jeremy Leggett (2001, p. 15) has dubbed "the Carbon Club," scientific uncertainty became an important theme, and therefore 'balanced' coverage of this scientific debate became commonplace. As Zehr (2000, p. 92) stated, "the extensive focus on new research implied that there were many unanswered questions". In 1989 and 1990 government officials, who were often armed with the findings of the global warming skeptics, became the

most cited source in prestige-press articles, surpassing scientists, who were the most cited source in 1988 (Wilkins, 1993). As discussed below, these US politicians often called for more research on global warming as a necessary precursor to taking mandatory action. So, despite general agreement in the scientific community regarding the existence of anthropogenic influences on global warming, coverage seemed to indicate that division within the scientific community was quite even.

By early 1990, balance became a common feature of the journalistic terrain. For example, a *Los Angeles Times* article reported:

The ability to study climactic patterns has been critical to the debate over the phenomenon called “global warming.” *Some scientists believe*—and some ice core studies seem to indicate—that humanity’s production of carbon dioxide is leading to a potentially dangerous overheating of the planet. *But skeptics contend* there is no evidence the warming exceeds the climate’s natural variations (Abramson, 1992, p. A1, emphasis added).

Another example of this bias-as-balance phenomenon comes from a 1995 *Washington Post* article that preceded the First Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC). While writing of a “lack of international consensus on the causes and hazards of global warming”, the author cites concerns of the distressed president of the Maldives Islands—a country threatened by sea level rise—and then writes:

[S]ome skeptical meteorologists and analysts assert that global warming reflects a natural cycle of temperature fluctuation and cannot be decisively tied to human actions. “As far as we are concerned, there’s no evidence for global warming, and by the year 2000 the man-made greenhouse theory will probably be regarded as the biggest scientific gaffe of the century,” Piers Corbyn, an astrophysicist at London’s Weather Action forecasting organization told the Reuter news agency (Atkinson, 1995, p. A10).

These prestige-press news articles all demonstrate that adhering to the journalistic norm of balanced reporting can, in the end, lead to biased coverage.

5.2. Balance as bias: global warming coverage regarding action

As discussed previously, the scientific community is in strong agreement that global warming has anthropogenic influences. The question that logically follows has been ‘what can be done about it?’ The second content analysis measure took up this line of inquiry as it examined US prestige-press coverage of ways to deal

with global warming. How did the US prestige press characterize various decisions on action to combat global warming? How did this coverage relate to ideas for action that were prevalent in the international scientific community?

As mentioned earlier, the scientific community has reached general consensus that immediate and mandatory actions are necessary to combat global warming. To illustrate this, in November of 1990 at the World Climate Conference in Geneva, over 700 scientists from around the world reviewed the IPCC First Assessment technical report. Following that review, they released the Scientists’ Declaration. Within this document, they said, “A clear scientific consensus has emerged on estimates of the range of global warming that can be expected during the 21st century...Countries are urged to take immediate actions to control the risks of climate change” (quoted in Leggett, 2001, p. 21). Moreover, clear calls for mandatory action were put forth at the June 1992 ‘Earth Summit’ in Rio de Janeiro where 160 countries signed the UNFCCC. This document—which came into force in March of 1994—set an agenda for mandatory action to combat global warming. Article 2 of the UNFCCC called for “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” Article 3 stated that, “lack of full scientific certainty should not be used as a reason for postponing such measures”. Article 4 discussed commitments, taken up in more detail in following Conferences of Parties, and at the Kyoto Climate Summit of 1997. However, in this article, signatories agreed to, “to adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases” (UNFCCC, 1992).

How has the US prestige press portrayed these decisions regarding action, and how has this influenced public perception of the US government’s position on these decisions? We began exploring this issue in our investigation of prestige-press reporting about action regarding global warming. We found that 78.20% of US prestige-press articles from 1988 through 2002 featured balanced approaches in terms of what should be done about global warming, describing with “roughly equal attention” courses of action that ranged from cautious to urgent and from voluntary to mandatory (Fig. 3). Coverage that gave unbalanced attention in favor of voluntary and cautious action accounted for 11.17% of the relevant news articles, while only 10.63% of the articles pulsed with urgency, clearly favoring immediate and mandatory action.

Next, we explored US prestige-press coverage of action regarding global warming by year (Fig. 4). In 1988, the majority of news attention concentrated on immediate and mandatory action. In 1989, this

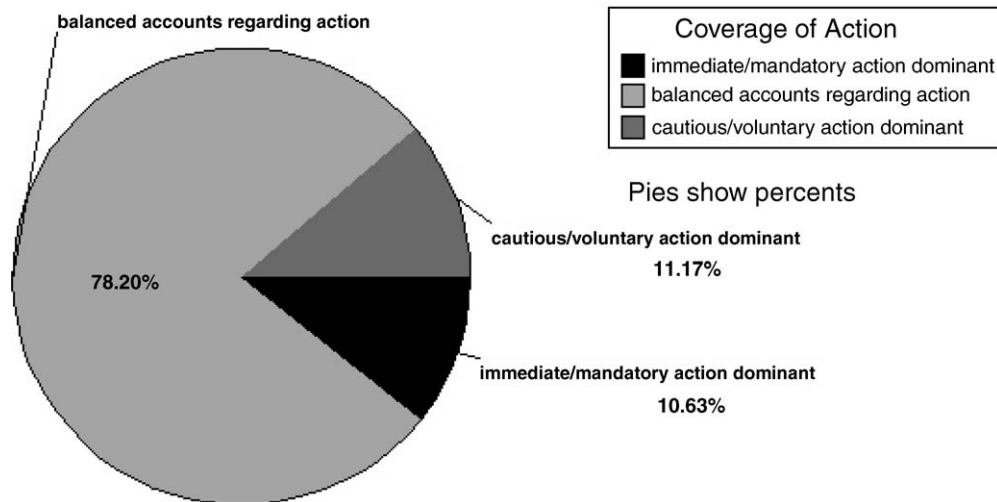


Fig. 3. US prestige-press coverage of action regarding global warming 1988–2002; $n = 367$ (this figure illustrates that 78.20% contained balanced coverage of action regarding global warming, while 11.17% contained dominant coverage of cautious/voluntary action, and 10.63% contained dominant coverage of immediate/mandatory action).

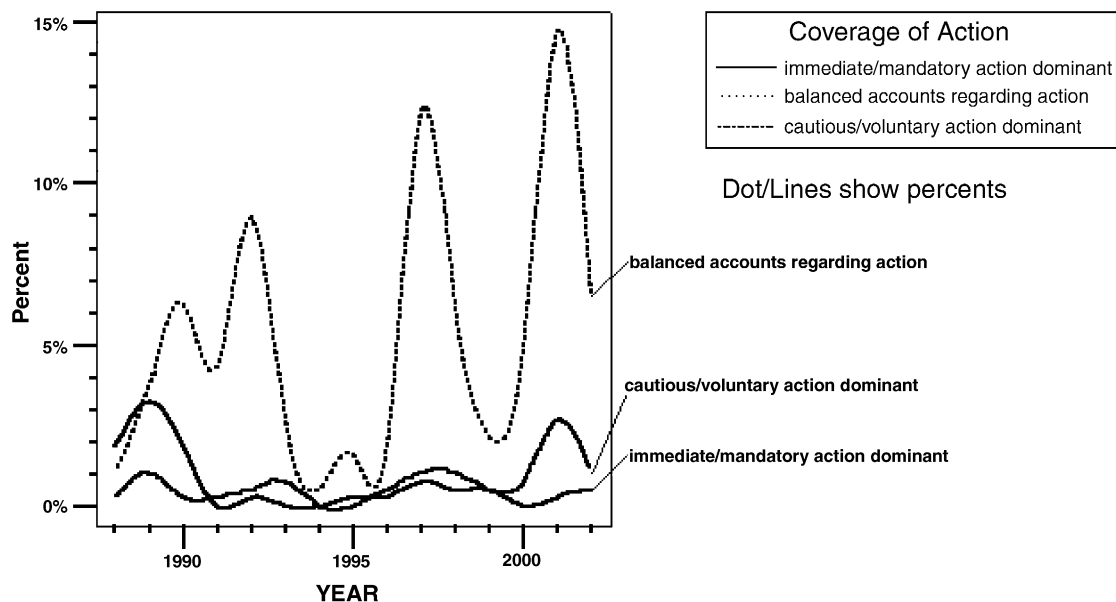


Fig. 4. US prestige-press coverage of action regarding global warming, by year 1988–2002, by percent of total number of cases; $n = 367$.

decreased, but was still the focus of significant US prestige-press coverage. However, from 1990 to 2002, the majority of relevant coverage was devoted to balanced accounts of action regarding global warming. This is similar to the shift that occurred in coverage of the existence of anthropogenic contributions to global warming. President Bush's 1988 campaign pledge aside, the United States has still not agreed to mandatory greenhouse gas reductions. Instead, beginning in the early 1990s, the US government resisted the moves of most developed countries' mandatory commitments. For example, in 1990, facing strong criticism at the U.N.

World Climate Summit in Geneva, the US government instead argued for their own 'no regrets' policy "that argues that scientific evidence is not clear and therefore no strong measures should be taken that might be regretted later" (Reuters, 1990, p. A12).

The international community continued to scrutinize the US government's position on global warming in the years that followed. These criticisms centered on the U.S. government's insistence on voluntary strategies such as emissions trading schemes, which countered the aforementioned consensus of UNFCCC signatories. Critics also focused on US foot-dragging strategies, such as

Table 3

The US prestige-press discourse and scientific discourse on action due to global warming: tests of difference by year, 1988–2002

Year	Coverage of action regarding global warming
1988	1.67
1989	3.70***
1990	5.98***
1991	5.63***
1992	7.97***
1993	4.03***
1994	2.04*
1995	3.28**
1996	3.21**
1997	9.01***
1998	6.20***
1999	3.33***
2000	5.71***
2001	9.66***
2002	6.35***

Note: The number in each cell represents the respective *z*-score, comparing proportions of balanced reporting in each discourse by year. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

continued calls for further research that virtually ignored the findings of the IPCC and related managerial scientific bodies that have provided most reputable, peer-reviewed climate research in history. However, the drama and controversy that emerged from this isolated and obdurate position of the United States relative to the international community captured media attention and therefore fell within the purview of the journalistic norm of balanced reporting.

Focusing attention on ‘both’ sides of the story regarding action due to global warming, the US prestige press in effect provided ‘balanced’ coverage of a very unbalanced issue. Extensive US prestige-press coverage was given to voluntary measures as outlined by US Department of Energy studies that encouraged private sector voluntary participation in federal programs (Lee, 1993). Coverage of voluntary measures and their defense persisted in the US prestige press. In a 1992 *Wall Street Journal* article entitled “A Climate of Doubt About Global Warming,” Energy Secretary Hazel O’Leary is quoted defending president Bill Clinton’s voluntary proposals by saying, “I want to remind you that ‘voluntary’ is not a dirty word” (Balling, 1992, p. A18).

To test the significance of this apparent incongruence, we compared the discourse from the scientific community and the US prestige press in regards to coverage of action (Table 3). Through comparison of proportions of ‘balance’ in each year, we found high levels of significance from 1989 to 2002. The lag time from the key events of 1988 to this significant shift in 1989 can be explained by the aforementioned politicization of the global warming issue (Trumbo, 1996), and the coordi-

nation and congruence of climate change skeptics (Gelbspan, 1998; Leggett, 2001; Schneider, 2001).

6. Conclusion

To address the structural roots of energy and transportation policy through calls for mandatory action to combat global warming is to threaten many well-heeled, carbon-based interests (Houghton, 1997; Leggett, 2001). George W. Bush’s campaign promises in 2000 not to ratify the Kyoto Protocol, saying, “it would unfairly burden the United States,” illustrates the oft employed logic of United States government regarding environmental issues, but it also plays into the hands of oil conglomerates who often spout similar reasoning (Revkin, 2000, p. A1). In fact, corporate industry lobby groups such as the Global Climate Coalition and the Competitive Enterprise Institute, as well as industry executives like Brian Flannery of Exxon have heavily influenced these positions (Gelbspan, 1998; Leggett, 2001). This prioritization stresses the threats of environmental policy on the current economic system rather than the reverse (Muradian and Martinez-Alier, 2001).

Climate-change skeptics fueled the debate on the existence of anthropogenic contributions to global warming by focusing on ‘uncertainty.’ In line with the findings of Zehr (2000) and Wilkins (1993), scientific uncertainty has been the key ingredient inserted into debates regarding action, often in order to inspire inaction (Demeritt, 2001).

To illustrate, in 1998 a draft report of a proposal compiled by industry opponents of action regarding global warming was leaked to the press. Among the ideas in the proposal was a “campaign to recruit a cadre of scientists who share the industry’s views of climate science and to train them in public relations so they can help convince journalists, politicians and the public that the risk of global warming is too uncertain to justify.” Moreover, the plan would measure success “by counting, among other things, the percentage of news articles that raise questions about climate science and the number of radio talk show appearances by scientists questioning the prevailing views.” This plan proposed a media-relations budget of \$600,000 that was to be directed at science writers, editors, columnists and television network correspondents, and was to raise questions about and undercut the “prevailing scientific wisdom.” The informal group that assembled this report—from big oil companies, conservative policy research organizations and trade associations—met in the American Petroleum Institute’s Washington office (Cushman, 1998, p. A1).

An emphasis on uncertainty often paved the way for US government officials and politicians to adopt the “More Research!” mantra when it came to global

warming. Through overwhelmingly ‘balanced coverage’ of various decisions regarding action due to global warming, the prestige press thereby implied that the division between various calls for action was relatively even. In light of the general agreement in the international scientific community that mandatory and immediate action is needed to combat global warming, US prestige-press coverage has been seriously and systematically deficient.

Overall, this study demonstrates that there is a significant difference between the scientific community discourse and the US prestige-press discourse regarding: (1) the existence of anthropogenic contributions to global warming, and (2) decisions regarding action on global warming. By empirically unpacking the robust norm of balanced reporting, this research examines what may on the surface be an obvious journalistic tendency—the proclivity to tell ‘both sides of the story’—and excavates it to find that balanced reporting is actually problematic in practice when discussing the human contribution to global warming and resulting calls for action to combat it.

We adopt a social constructionist approach in this work that values the relationships that lead to the creation of meaning. We recognize that this meaning is constructed and manifested through both the ontological conditions of nature, and contingent social and political processes involved in interpretations of this nature (Mazur and Lee, 1993; Demeritt, 2001).¹⁵ Our research has led us to believe that, as Edelman (1988, p. 123) said, “Political understanding lies in awareness of the range of meanings political phenomena present and in appreciation of their potentialities for generating change in actions and beliefs. It does not spring from designating some one interpretation as fact, truth, or scientific finding”. Structural factors like journalistic norms and values contribute to an explanation as to why global warming, as an environmental issue, has struggled for fair and accurate attention from the prestige press in the United States.

Even though the IPCC has strongly posited that anthropogenic activities have had a ‘discernable’ effect on the global climate (IPCC, 1996), urgent, mandatory action has not been taken. The central messages in the generally agreed-upon scientific discourse have therefore not been proliferated by the mass media into the popular arena. The failed discursive translation between the scientific community and popular, mass-mediatized discourse is not random; rather the mis-translation is systematic and occurs for perfectly logical reasons rooted in journalistic norms, and values.

We conclude that the US prestige press—the *New York Times*, the *Washington Post*, the *Los Angeles*

Times, and the *Wall Street Journal*—has contributed in significant ways to this failed discursive translation through the adherence to journalistic norms, and more specifically to the journalistic norm of balance.¹⁶ In the end, adherence to the norm of balanced reporting leads to informationally biased coverage of global warming. This bias, hidden behind the veil of journalistic balance, creates both discursive and real political space for the US government to shirk responsibility and delay action regarding global warming.

The findings presented here suggest that studying journalistic norms and values provide a constructive foundation from which to investigate more nuanced explanations of media coverage of global warming, such as why certain facets of the global warming issue become ‘news’ and others do not. In this arena of study, future research could explore the role that specific claims makers have in the creation of news as well as how the background and training of the journalists writing the articles affect news coverage. Moreover, interviews with journalists would better situate and extract explanations as to why journalists continue to adhere to the norm of balanced reporting on the issue of global warming at certain times, and not in others. Also, future studies could integrate macro-structural analysis with the micro-process analysis featured here. Furthermore, future work could delineate partial predictive influences on the production of ‘balanced’ coverage, of global warming, or divergence from it, in order to more finely texture explanations of this media coverage. Finally, comparisons between coverage of global warming in the US prestige press and coverage in other countries would be helpful in distilling some of the complex causal features of adherence to this journalistic norm. Taken together, these multi-method approaches would strongly contribute to further understanding of mass media coverage, and public understanding of global warming.

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¹⁵Demeritt (2001, p. 346) terms this ‘heterogeneous constructionism’.

¹⁶Once again, it is important to note that while the balance norm is significant, it interacts in non-linear ways with other journalistic, economic and political norms.

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