

Is News Corp. Failing Science?

*Representations of Climate Science on Fox News
Channel and in the Wall Street Journal Opinion
Pages*

AARON HUERTAS

DENA ADLER



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

September 2012

© 2012 Union of Concerned Scientists

All rights reserved

Aaron Huertas is a press secretary in the UCS Communications Department. **Dena Adler** is an outreach intern in the UCS Climate and Energy Program.

The Union of Concerned Scientists (UCS) is the leading science-based nonprofit working for a healthy environment and a safer world. UCS combines independent scientific research and citizen action to develop innovative, practical solutions and to secure responsible changes in government policy, corporate practices, and consumer choices.

UCS's Communications Department and Climate and Energy Program seek to ensure accurate coverage of climate science and help elevate the voices of scientists in the public and press.

More information about UCS and the Climate and Energy Program is available on the UCS website (www.ucsusa.org).

The full text of this report is available on the UCS website at www.ucsusa.org/publications or may be obtained from:

UCS Publications
2 Brattle Square
Cambridge, MA 02138-3780

Or, email pubs@ucsusa.org or call (617) 547-5552.

Contents

<i>Figures and Tables</i>	<i>IV</i>
<i>Acknowledgments</i>	<i>V</i>
<i>Executive Summary</i>	<i>VII</i>
1. News Corp. and Climate Change	1
News Corp.'s Statements and Actions on Climate Change	1
Examining Representations of Climate Science	2
2. Examining Representations of Climate Science and Climate Change	3
Accurate and Misleading Representations of Climate Science	3
Denigrating Climate Science	5
3. Representations of Climate Science on Fox News Channel	6
Overall Representations	6
Climate Science Representations	7
Types of Arguments Used to Mislead on Climate Science	7
4. Representations of Climate Science in the <i>Wall Street Journal</i> Opinion Section	9
Overall Representations	9
Climate Science Representations	10
Types of Arguments Used to Mislead on Climate Science	10
5. Representations of Climate Action	12
6. Conclusions and Recommendations	13
References	15
Appendix A. Methodology	18
Appendix B. Other Studies and Future Research Directions	21

Figures

1. Fox News Channel Representations of Climate Change, by Topic	6
2. Misleading vs. Accurate Representations of Climate Science on Fox News Channel	7
3. Frequency of Types of Misrepresentations of Climate Science on Fox News Channel	8
4. <i>Wall Street Journal</i> Opinion Section Representations of Climate Change, by Topic	9
5. Misleading vs. Accurate Representations of Climate Science in the <i>Wall Street Journal</i> Opinion Section	10
6. Frequency of Types of Misrepresentations of Climate Science in the <i>Wall Street Journal</i> Opinion Section	11
A1. Criteria for Categorizing News Corp. Citations	19

Tables

A1.Sources	18
------------	----

Acknowledgments

The opinions expressed in this report are those of the authors alone, and do not necessarily reflect the opinions of the organizations that funded the work.

The author(s) would like to thank Brenda Ekwurzel and Jean Sideris for their careful and thoughtful feedback throughout the writing of this report. We would also like to thank Kathleen Rest, Peter Frumhoff, Suzanne Shaw, Rich Hayes, Elliott Negin, Lisa Nurnberger, Sarah Goldberg, Eric Bontrager, Monica Jones and other UCS staff who provided input on this research. Andrew Hoffman offered a careful and immensely helpful review of this work. Seth Shulman and Heather Tuttle skillfully edited and produced the report under a tight deadline. We also thank Anthony Lieserowitz and Robert Brulle for helping us ensure that we accurately portrayed their research.

EXECUTIVE SUMMARY

News Corporation is one of the world's largest media companies. Under its Global Energy Initiative, the company has publicly committed to engaging its audiences on sustainability issues and the company publicly touts climate change initiatives among its successes.

Despite News Corp.'s public commitment to environmental sustainability, a snapshot analysis by the Union of Concerned Scientists (UCS) finds that recent portrayals of climate science on Fox News Channel and in the *Wall Street Journal's* opinion section are overwhelmingly misleading.

UCS's analysis finds that:

- Over a recent six-month period, **93 percent of Fox News Channel's representations of climate science were misleading** (37 out of 40 instances).
- Similarly, over the past year, **81 percent of the representations of climate science in the *Wall Street Journal's* opinion section were misleading** (39 out of 48 instances).

UCS's examination finds that the misleading citations include broad dismissals of human-caused climate change, disparaging comments about individual scientists, rejections of climate science as a body of knowledge, and cherry picking of data. Fox News Channel citations also included several discussions in which misleading claims dominated accurate ones. Furthermore, much of this coverage denigrated climate science by either promoting distrust in scientists and scientific institutions or placing acceptance of climate change in an ideological, rather than fact-based, context.

In 2007, News Corp. CEO Rupert Murdoch claimed coverage of climate change in his media outlets would improve over time. Based on this 2012 snapshot analysis, such improvement has not been achieved.

UCS calls upon News Corp. to undertake a thorough examination of how its media outlets portray climate science and to develop standards and practices for communicating the subject to its audiences. Equally important, News Corp. needs to help its staff to differentiate between ideological beliefs and scientific facts—that is, between the ideological preferences regarding the response (personal or governmental) to climate change and the overwhelming body of established scientific evidence that human-caused climate change is occurring.

Chapter 1

NEWS CORP. AND CLIMATE CHANGE

NEWS CORP.'S STATEMENTS AND ACTIONS ON CLIMATE CHANGE

News Corporation is one of the top five media companies operating in the United States. In 2011, it ranked as the 284th largest company in the world, with \$32.8 billion in revenue (Fortune 2011). As part of its Global Energy Initiative, the company has publicly stated that: “News Corporation is committed to minimizing its environmental impact, growing sustainably, and inspiring others to take action.” In particular, the company has pledged to: “grow our business without growing our carbon footprint; power our operations with clean electricity; minimize solid waste to landfill from our production operations; [and] engage our readers, viewers and customers on sustainability issues through partnerships and content of the highest caliber” (News Corp. “”2012a).

Among the key highlights News Corp. discusses on its website are “climate change focused initiatives” such as the “Preserve Our Planet” series on National Geographic Television (News Corp. “”2012b).

When News Corp. CEO Rupert Murdoch launched the Global Energy Initiative in 2007, he told *Grist Magazine*, “I think when people see that 99 percent of scientists agree about the serious extent of global warming, it’s going to become a fact of life” (Little 2007).

In March 2011, Murdoch issued a memo announcing that News Corp. had met its goal of becoming carbon-neutral. “We have become carbon-neutral across all of our global operations, and we are the first company of our kind to do so,” Murdoch wrote. “We made a bold commitment in 2007 to embed the values of energy efficiency and environmental sustainability into all of our businesses—for the benefit of our communities and our bottom line” (Murdoch 2011).

EXAMINING REPRESENTATIONS OF CLIMATE SCIENCE

Despite News Corp.'s public commitments to environmental sustainability and carbon neutrality, some of the company's prominent media outlets have been frequently cited in anecdotal and peer-reviewed assessments as presenting biased and misleading information about climate change and climate science (See Appendix B). In 2010, for instance, news organizations reported on a memo leaked from Fox News Channel's Washington editor in which he urged his staff to highlight contrarian views on the basic question of whether Earth is warming (Weprin 2010). Similarly, anecdotal reviews have demonstrated that the *Wall Street Journal* editorial board has treated climate science dismissively, along with acid rain, ozone depletion, and other findings from environmental and atmospheric science (Fitzsimmons and Fong 2012).

To gauge the accuracy of such claims, and to assess whether News Corp.'s public sustainability commitments have extended to media representations of climate science, the Union of Concerned Scientists (UCS) analyzed content at two of News Corp.'s most prominent U.S.-based outlets: Fox News Channel and the *Wall Street Journal* opinion section.

In 2011, Fox News Channel was the most popular cable news channel in the United States, with a median viewership of some 1.9 million people during evening "prime time" (Holcomb, Mitchell, and Rosentiel 2012). Fox News Channel shows comprised nine of the top 10 most popular cable news programs in 2011 among the "key" demographic of adults aged 25 to 54 years old (Weprin 2011). The *Wall Street Journal*, another flagship News Corp. outlet, is the largest American newspaper—with a total circulation of more than 2 million (Edmonds et al. 2012).

Given News Corp.'s public environmental commitments and the extremely broad reach of these media outlets, this analysis focuses on representations of climate change across many primetime programs on Fox News Channel, and particularly at such representations in the opinion section of the *Wall Street Journal*. It should be noted, however, that, despite the prominence and influence of the content we reviewed, Fox News Channel primetime programs are generally organized around hosts and their staff and are distinct from other Fox News Channel programs and Foxnews.com. In addition, the opinion section operates separately from the news sections at the *Wall Street Journal*.

Chapter 2

MEASURING REPRESENTATIONS OF CLIMATE SCIENCE AND CLIMATE CHANGE

This snapshot analysis examined six months of Fox News Channel content and one year of representations in the *Wall Street Journal* opinion section based on keyword searches for the terms “climate change” and “global warming.” Our team examined transcripts and articles to determine whether these media outlets mentioned climate science, action on climate change (personal action or government policies), both, or neither.

ACCURATE AND MISLEADING REPRESENTATIONS OF CLIMATE SCIENCE

Citations mentioning climate science were coded to determine if they were accurate or misleading based on whether they rejected or affirmed mainstream scientific understanding that climate change is occurring, is largely human-induced, and affects human and natural systems.¹ Citations deemed to be misleading questioned either the reality of climate change or the fact that recent climate change is largely due to human activities, or they advanced other arguments that dismissed established climate science. Misleading citations were further categorized depending on the type of representations they made. Many individual citations were found to advance

¹ Major assessment reports from the U.S. National Academy of Sciences (NAS) and its global counterparts, the U.N. Intergovernmental Panel on Climate Change, the United States Global Change Research Program, and thousands of scientific sources validate the multiple lines of evidence that carbon dioxide and other gases from human activities are driving recent climate change (NAS 2011; Cicerone et al. 2009; IPCC 2007; USGCRP 2009). The NAS’s “America’s Climate Choices” offers a brief summary of the evidence: “Climate change is occurring, is caused largely by human activities, and poses significant risks for—and in many cases is already affecting—a broad range of human and natural systems” (NAS 2011).

multiple misleading claims and marked accordingly. Below are descriptions and illustrative examples of each category:

1. **Broad dismissal of the scientific evidence that climate change is occurring and is largely due to human activities.** For example, these instances dismissed the upward trend in global temperatures, questioned the global temperature record, and questioned the role human factors play in influencing the climate.
 - “I thought we were getting warmer. But in the ‘70s, it was, look out, we’re all going to freeze” (Fox News Channel, 4/11/12).
2. **Disparaging climate scientists generally or specifically.** These instances negatively characterized scientists who study climate change by name or climate researchers’ motivations and ethics.
 - “... that doesn’t stop a global-warming alarmist like James Hansen, a lead scientist at NASA...” (*Wall Street Journal* op-ed, 7/4/2012).
3. **Disparaging or mocking climate science as a body of knowledge.** These instances compared climate science unfavorably with other scientific fields and criticized the methods used to reach conclusions in climate science.
 - “What a contrast [the physics research institution CERN] is to the pseudoscience promoted by the consensus-driven global-warming crowd” (*Wall Street Journal* letter, 10/4/2011).
4. **Cherry-picking individual facts or findings to question overall climate science conclusions.** These instances advanced fact-based, but misleading arguments about climate science. They also included instances of elevating research in a **narrow**, misleading way that ignored or undermined the broad conclusions of climate science.
 - “The lack of any statistically significant warming for over a decade...” (*Wall Street Journal* op-ed, 5/27/12).
5. **Debates or conversations in which misleading claims drown out accurate ones (coded only for Fox News Channel).** These instances included conversations or **debates** between hosts, guests, and panelists in which a panelist affirmed broad or specific conclusions of climate science, but one or more other participants on the show responded with misleading arguments.
 - *Panel member:* “...there are certain things you cannot deny, and that is that you pollute the atmosphere every day in massive amounts. The world gets more and more industrialized and we have had 10 of the 11 years have been the highest temperatures on record.”
 - *Host:* “...There could be an actual debate about this. There will never be a debate because you call people like me a ‘flat earther.’ You’re saying it’s the warmest ever. In 150 years of this much of 3

million years. *It's been warmer and warmer before there were SUVs* [emphasis added]" (Fox News Channel, 4/11/2012).

DENIGRATING CLIMATE SCIENCE

Citations characterized as misleading on climate science were further examined to determine whether they denigrated climate science. Instances of denigration go beyond inaccurate claims, to express a lack of trust in scientists, scientific institutions, and their conclusions, or to characterize the acceptance or rejection of climate change as an ideological (as opposed to a scientific) issue. Our team found clear examples of denigrating climate science in both the media outlets examined.

Four illustrative examples are offered below:

- “We are in the middle of what you might call a global warming bubble. It is a failure of the global warming theory itself and of the credibility of its advocates...” (*Wall Street Journal* column, 3/9/2012).
- “This book is called ‘Don’t Sell Your Coat.’ It’s by a guy named Harold Ambler. He’s an expert, or at least he’s a kind of a self-made expert on climate change. This is a very simple explanation of what’s going on out there. He’s a card-carrying liberal so now he’s a heretic because of this book. And it’s really interesting. A great book on the facts and fallacies of climate change” (Fox News Channel, 4/13/12).
- “The green energy stuff—I mean, that’s—that’s all a hoax and a fraud based on another hoax and fraud, global warming.” (Fox News Channel, 3/23/12).
- Another instance ridiculed global warming by comparing it to a medical story presented as entertainment. *Host*: “Finally tonight, there is always some new threat to our environment from acid rain to global warming. But here is a new one, and if you have any doubts, just listen to the scientist make his case...” *Correspondent*: “Scientists and medical researchers are launching a war against party balloons.” (Fox News Channel, 3/23/12).

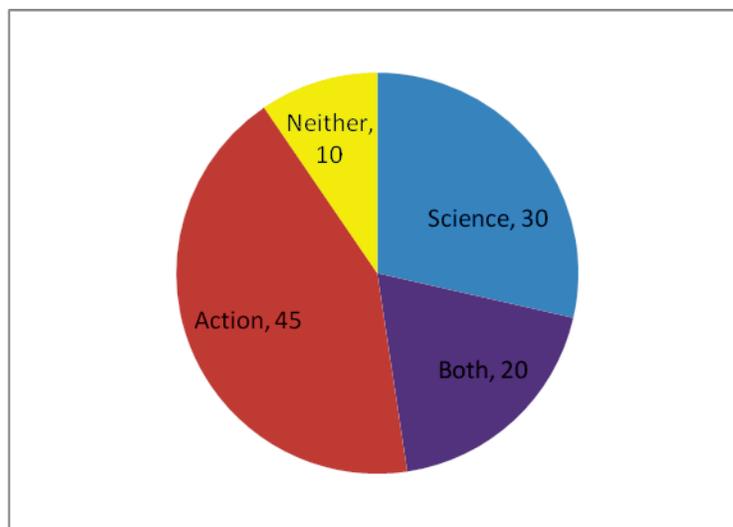
Chapter 3

REPRESENTATIONS OF CLIMATE SCIENCE ON FOX NEWS CHANNEL

OVERALL REPRESENTATIONS

When the issue of climate change was presented on Fox News Channel, instances were roughly split between representations of climate science and climate action. The topics were often discussed together. In some instances, climate change was mentioned only in passing or as an aside and such instances were categorized as being about neither action nor science.

Figure 1. Fox News Channel Representations of Climate Change, by Topic

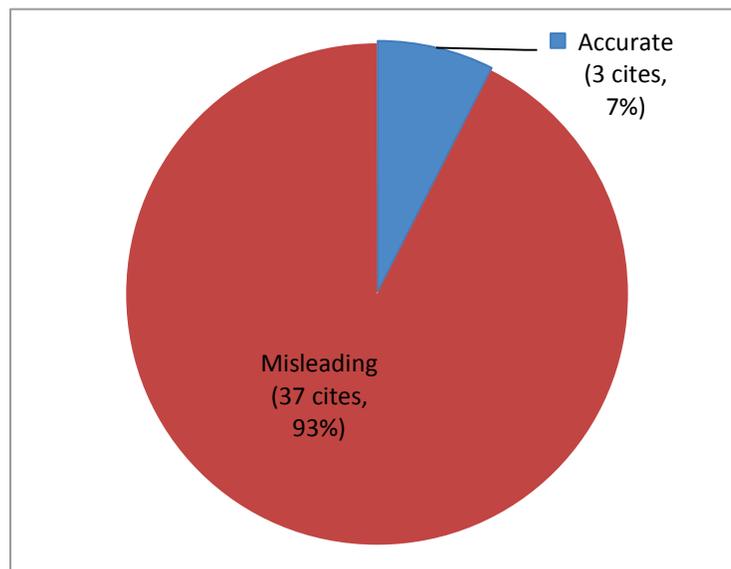


Number of climate change citations from Fox News Channel, February to July 2012, by topic area.

CLIMATE SCIENCE REPRESENTATIONS

Our analysis found 93 percent of 40 representations of climate science on Fox News Channel to be misleading.

Figure 2. Misleading vs. Accurate Representations of Climate Science on Fox News Channel



Misleading vs. accurate coverage of climate science on Fox News Channel, February to July 2012.

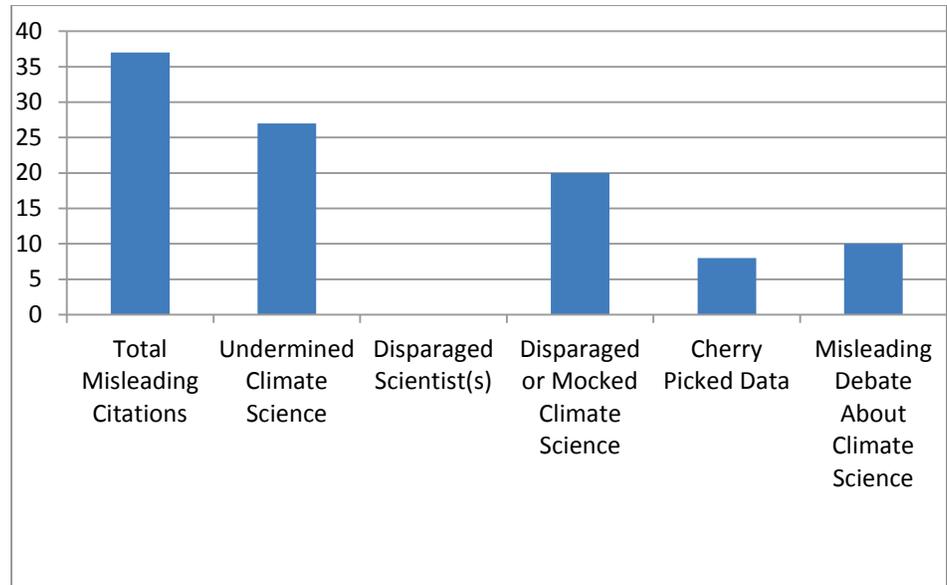
The three instances that accurately represented climate science included a video clip of Fox News Channel's Bill O'Reilly, a clip of Representative Henry Waxman (D-CA), and a correspondent noting that environmentalists say burning coal is a leading cause of climate change.

TYPES OF ARGUMENTS USED TO MISLEAD ON CLIMATE SCIENCE

Fox News Channel hosts and guests often made multiple arguments against climate science in the same segment. The most common form of criticism regarding climate science on Fox News Channel was to broadly dismiss the scientific conclusion that climate change is occurring or human-induced. Instances of disparaging scientists were not found in this six-month snapshot,

although such instances have occurred on Fox News Channel in the past (Fox News 2012). Disparaging and mocking climate science was relatively common in this sample, including suggestions that climate change is a hoax. But fewer instances of cherry-picking were found. In addition, 10 citations were included in which a panel member expressed acceptance of climate science findings but was drowned out by hosts or other panel members who responded with multiple misleading claims.

Figure 3. Frequency of Types of Misrepresentations of Climate Science on Fox News Channel



Frequency of types of misleading representations made about climate science among 37 misleading citations on Fox News Channel February to July 2012.

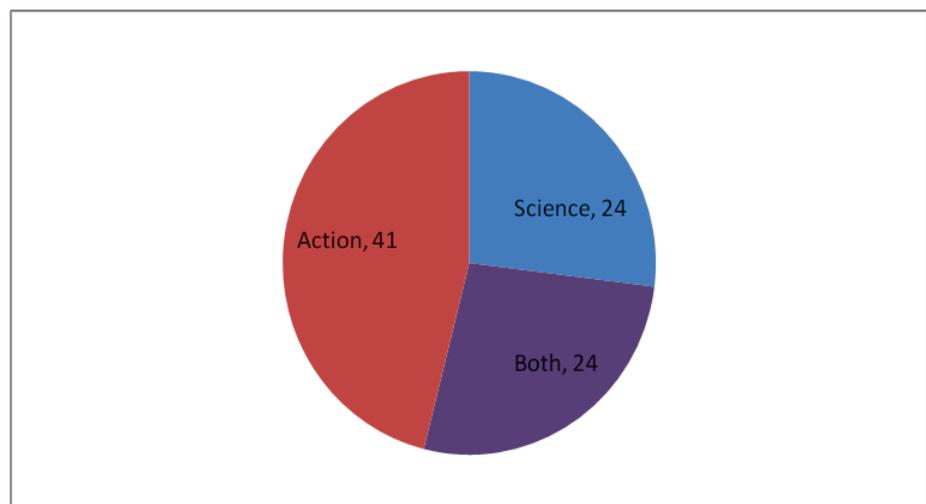
Chapter 4

REPRESENTATIONS OF CLIMATE SCIENCE IN THE *WALL STREET JOURNAL* OPINION SECTION

OVERALL REPRESENTATIONS

The *Wall Street Journal* opinion section addressed climate change or global warming 89 times from August 2011 through July 2012. Most of the instances discussed action on climate change (personal action or government policies). Only about one-third of the instances focused exclusively on climate science, while 24 citations touched upon both climate science and climate action.

Figure 4. *Wall Street Journal* Opinion Section Representations of Climate Change, by Topic

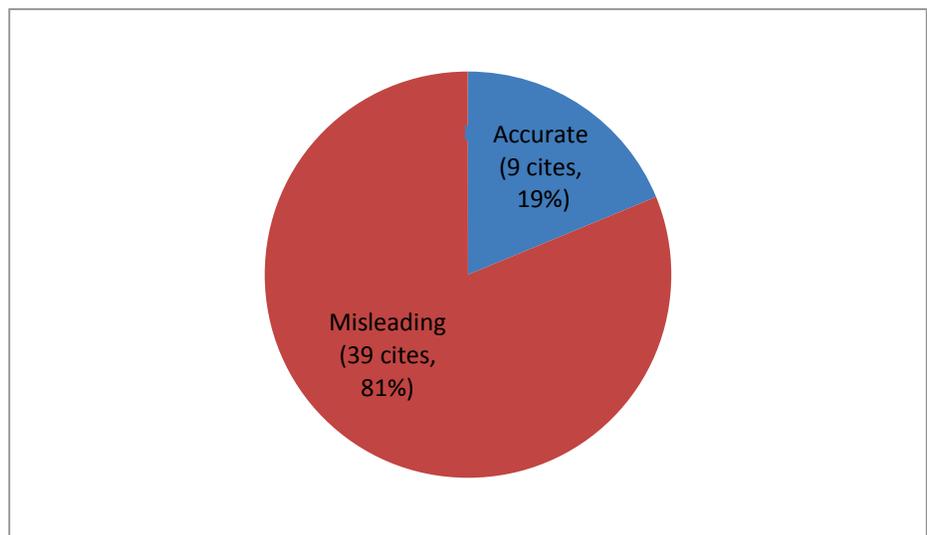


Number of climate change citations covered in the Wall Street Journal opinion section August 2011 to July 2012, by broad topic area.

CLIMATE SCIENCE REPRESENTATIONS

Our analysis found 81 percent of 48 representations of climate science in the *Wall Street Journal*'s opinion section to be misleading.

Figure 5. Misleading vs. Accurate Representations of Climate Science in the *Wall Street Journal* Opinion Section

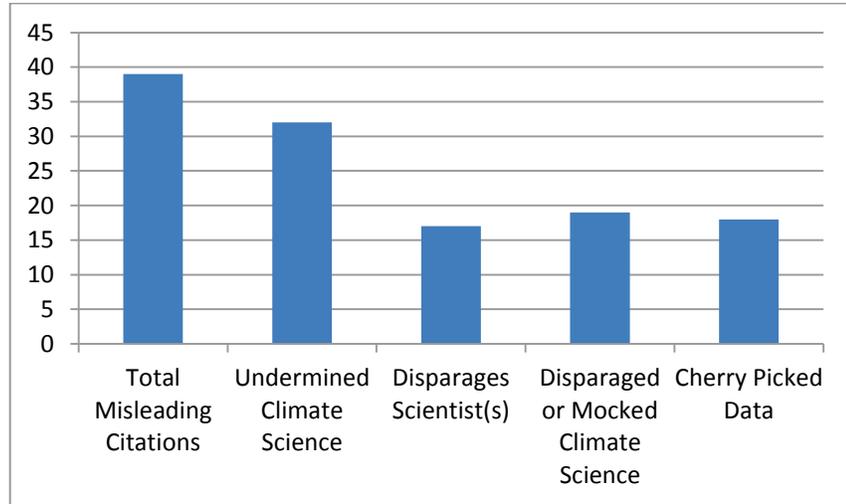


Accurate vs. misleading coverage of climate science in the Wall Street Journal opinion section, August 2011 to July 2012.

TYPES OF ARGUMENTS USED TO MISLEAD ON CLIMATE SCIENCE

Most of the editorials, op-eds, columns, and letters with misleading representations of climate science attempted to broadly undermine the major conclusions of climate science. Instances of disparaging individual scientists, mocking climate science, or cherry-picking data also occurred with some regularity.

Figure 6. Frequency of Types of Misrepresentations of Climate Science in the *Wall Street Journal* Opinion Section



Frequency of misleading arguments made about climate science in the Wall Street Journal opinion section, August 2011 to July 2012.

Chapter 5

REPRESENTATIONS OF CLIMATE ACTION

The primary focus of this snapshot analysis is the way in which climate science is presented. However, the terms “climate change” and “global warming” are also used in discussions of climate action, including personal actions and government policy. Our analysis found 55 citations about climate action on Fox News Channel and 65 in the *Wall Street Journal* opinion section. While we did not analyze these citations in depth, a cursory review found very few expressions of support for action on climate change. This merits further analysis, but it should be noted that it is possible to accept the findings of climate science while legitimately opposing specific climate actions or policies.

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

Media coverage of climate change plays a critical role in informing the public on the subject (Brulle, Carmichael, and Jenkins 2012). News Corp.'s efforts to engage its audiences on sustainability are therefore undercut when misinformation about a key sustainability issue dominates the content in two of the company's most prominent media outlets.

It is not clear whether Fox News Channel has a policy on climate change coverage. Nor is it clear whether News Corp. has attempted to address the tone or orientation of the *Wall Street Journal* editorial board's representations of climate science since the company purchased the newspaper in 2007. Nonetheless, as an influential participant in American democracy, News Corp. has an obligation to improve its representations of climate science.

We call on News Corp. to undertake a thorough examination of how its media outlets portray climate science and to develop standards and practices for communicating the subject to its audiences. The British Broadcasting Corporation (BBC) commissioned such an analysis last year and identified some shortcomings in its climate change coverage (Jones 2011). Although News Corp. and the BBC have significantly different governance structures, News Corp.'s stated commitment to sustainability should be matched by such a critical examination of the way in which its media properties live up to the company's publicly stated goals.

Equally important, News Corp. needs to help its staff to differentiate between opinions about climate change and scientific facts. It is entirely appropriate to disagree with specific actions or policies aimed at addressing climate change *while accepting the clearly established findings of climate science*. And while it is appropriate to question new science as it emerges, *it is misleading to reject or sow doubt about established science—in this case,*

the overwhelming body of evidence that human-caused climate change is occurring.

Representations of climate science on the Fox News Channel and in the opinion section of the *Wall Street Journal* should be informed by an honest assessment of how cultural worldviews about the role of government affects people's perception of scientific expertise and evidence on a range of issues, including nuclear waste, mandatory vaccination, and climate change (Kahan, Jenkins-Smith, and Braman 2010). These cultural biases in processing scientific information ought to be understood and examined, especially by media figures with strong ideological identifications and opinions who take their responsibilities to the public seriously.

A great many politicians, columnists, and other public figures from across the ideological spectrum accurately convey climate science to audiences and understand the difference between science and policy. Their voices should be amplified, not ignored.

REFERENCES

Brulle, R., J. Carmichael, and C. Jenkins. 2012. Shifting public opinion on climate change: An empirical assessment of factors influencing concern over climate change in the U.S., 2002–2010. *Climatic Change*. January 13.

Cicerone, R. et al. 2009. G8+5 Academies' joint statement: Climate change and the transformation of energy technologies for a low carbon future. Online at <http://www.nationalacademies.org/includes/G8+5energy-climate09.pdf>, accessed September 12, 2012.

Edmonds, R., E. Guskin, and T. Rostentiel, A. Mitchell. 2012. Newspapers: By the numbers. In *The State of the News Media 2012*. Washington, DC: The Pew Research Center's Project for Excellence in Journalism.

Feldman, L., E. Maibach, C. Roser-Renouf, and A. Leiserowitz. 2011. Climate on cable: The nature and impact of global warming coverage on Fox News, CNN, and MSNBC. *The International Journal of Press / Politics* 17(1):3–31.

Fitzsimmons, J., and J. Fong. 2012. *The Wall Street Journal: Dismissing environmental threats since 1972*. Washington, DC: Media Matters for America. August 2.

Fortune. 2011. *Our annual ranking of the world's largest corporations*. Online at http://money.cnn.com/magazines/fortune/global500/2011/full_list/201_300.html, accessed September 12, 2012.

Fox News. Climate Gate. Online at <http://www.foxnews.com/topics/climate-gate.htm>, accessed September 12, 2012.

Hoffman, A. 2011. Talking past each other? Cultural framing of skeptical and convinced logics in the climate change debate. *Organization & Environment* 24(1):3–33.

Holcomb, J., A. Mitchell, and T. Rosentiel. 2012 Cable: By the numbers. In *The State of the News Media 2012*. Washington, DC: The Pew Research Center's Project for Excellence in Journalism.

Intergovernmental Panel on Climate Change (IPCC). 2007. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007. Edited by S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor, and H.L. Miller. Cambridge, UK: Cambridge University Press.

Jones, S. 2011. BBC Trust review of impartiality and accuracy of the BBC's coverage of science. BBC Trust. July 2011.

Kahan, D., H. Jenkins-Smith, and D. Braman. 2010. Cultural cognition of scientific consensus. *Journal of Risk Research* 14(2):147–174.
Krosnick, J., and B. MacInnis. 2010. Frequent viewers of Fox News are less likely to accept scientists' views of global warming. Poll. Stanford University. December .

Leiserowitz, A., E. Maibach, C. Roser-Renouf, and N. Smith. 2010. Global warming's six Americas. Interviews. Yale University and George Mason University. June .

Little, A. 2007. An interview with Rupert Murdoch about News Corp.'s new climate strategy. *Grist Magazine*, May 17. Online at <http://grist.org/article/murdoch1>, accessed September 12, 2012.

Mandia, S. 2011. Wall Street Journal: Selective pro-science. Blog post, January 31. Online at <http://profmandia.wordpress.com/2011/01/31/wall-street-journal-selectively-pro-science>, accessed September 12, 2012.

Mayer, F. 2012. Stories of climate change: Competing narratives, the media, and U.S. public opinion 2001–2010. Discussion paper #D-72. Cambridge, MA: Harvard University, Joan Shorenstein Center of the Press, Politics and Public Policy. February.

Murdoch, R. 2011. Letter to colleagues. March 1. Online at <http://gei.newscorp.com/letter.html>, accessed September 12, 2012.

National Academy of Sciences. 2011. America's climate choices. National Research Council summary. Washington, DC: The National Academies Press, 2011.

News Corporation. 2012a. Our targets. Online at <http://gei.newscorp.com/strategy.html>, accessed September 12, 2012.

News Corporation. 2012b. Key highlights. Online at <http://gei.newscorp.com/index.html>, accessed September 12, 2012.

Ramsay, C., S. Kull, E. Lewis, and S. Subias. 2010. Misinformation and the 2010 Election: A Study of the US Electorate. Conducted by WorldPublicOpinion.org and Knowledge Networks. Washington, DC: Program on International Policy Attitudes. December 10.

U.S. Global Change Research Program (USGCRP). 2009. *Global Climate Change Impacts in the United States*. Edited by T.R. Karl, J.M. Melillo, and T.C. Peterson. Cambridge, UK: Cambridge University Press.

Weprin, A. 2011. The top cable news programs of 2011. MediaBistro. Online at http://www.mediabistro.com/tvnewser/the-top-cable-news-programs-of-2011_b104208, accessed September 12, 2012.

Weprin, A. 2010. Another Bill Sammon memo, this time on climate change, is made public. MediaBistro. Online at http://www.mediabistro.com/tvnewser/another-bill-sammon-memo-this-time-on-climate-change-is-made-public_b44083, accessed September 12, 2012.

Appendix A

METHODOLOGY

UCS communications and outreach staff performed this snapshot analysis of coverage of climate science at two News Corp. outlets: Fox News Channel and the *Wall Street Journal* opinion section. This analysis is based on coverage over the studied time period and does not, on its own, describe the breadth and depth of climate change coverage across either outlet. (See Appendix B for other research that has taken a more robust look at Fox News Channel in particular, as well as newspaper coverage generally.)

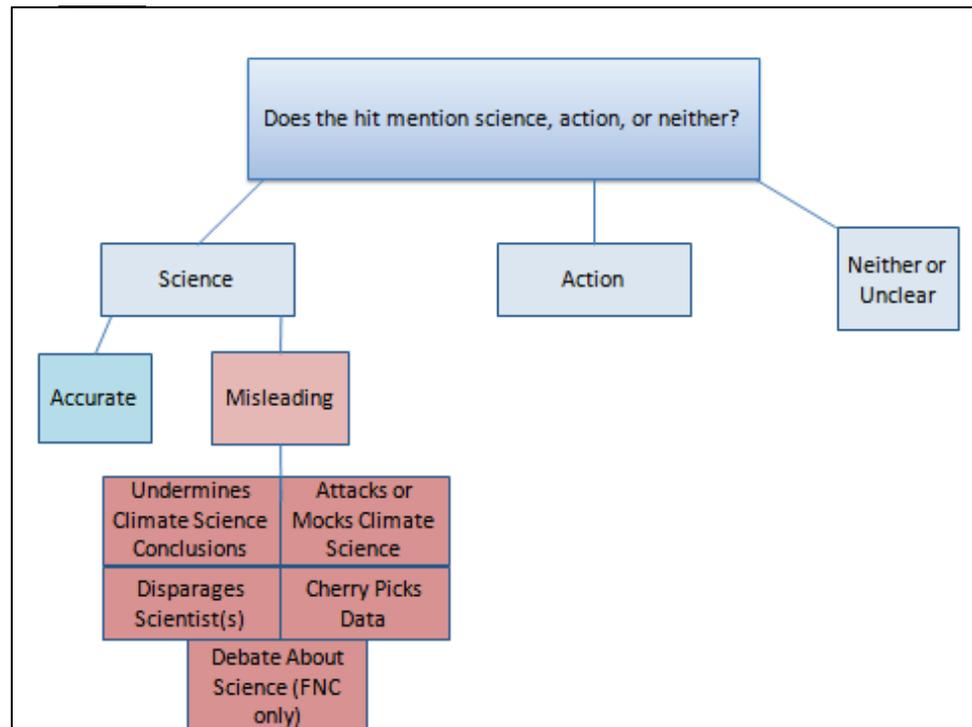
The UCS team reviewed six months of prime-time Fox News Channel coverage as well as the network’s interviews with policy makers and the non-primetime “Journal Editorial Report,” which features *Wall Street Journal* editorial board members. The programs in the analysis included several news programs, a large number of opinion-driven programs, and some live coverage of breaking news events. UCS also reviewed one year of the *Wall Street Journal* opinion section. These different time ranges yielded a roughly equal number of citations for both outlets.

Table A1. Sources

	Fox News Channel	<i>Wall Street Journal</i> Opinion Section
Search Location	Lexis-Nexis database	<i>Wall Street Journal</i> website
Search Terms	“climate change” or “global warming”	“climate change” or “global warming”
Search Date Range	February 2012 to July 2012	August 2011 to July 2012
Media Hit Count Criteria	1 per mention or 1 per sub-topic within a broader discussion	1 per editorial, op-ed, or letter
Sources of Citations	Primetime programs, policy-maker interviews, <i>Wall Street Journal</i> editorial board program	Opinion pieces that were also featured in the print edition
Total Citations	85	90

We applied various criteria to code citations.

Figure A1. Criteria for Categorizing News Corp. Citations



Characterizations of science were marked as accurate or misleading based on whether or not they rejected or affirmed mainstream scientific understanding that climate change is occurring, human-induced, and affecting human and natural systems. Misleading citations were further categorized based on whether or not they advanced various types of arguments. One citation could advance arguments across multiple categories. Those categories were based on designations originally developed by Scott Mandia (Mandia 2011) and modified for this analysis.

The UCS team members separately coded citations from Fox News Channel and the *Wall Street Journal* opinion section and then exchanged data sets to identify areas where coding was questionable or unclear. Team members met to discuss and resolve differences, which were few, and discuss potentially confusing citations, which were far more prevalent in the Fox News Channel data set due to the informal nature of cable news discussions.

Based on these discussions, the UCS team excluded 13 hits from the Fox News Channel data set. Eight citations returned by Lexis-Nexis were from Fox radio programs rather than television programs. Another citation was eliminated because it came from MSNBC; its inclusion in the Lexis-Nexis

search may have been a database error. The team also excluded two citations which represented text shown on Fox News Channel rather than on-air discussion. In addition, two Fox News Channel citations were excluded because climate change was discussed in a context that was unclear. Similarly, one *Wall Street Journal* hit was excluded because it mentioned climate change in the context of the television series “Game of Thrones,” and was deemed irrelevant to the analysis.

Appendix B

OTHER STUDIES AND FUTURE RESEARCH DIRECTIONS

One comprehensive study of public opinion regarding climate change published in 2012 found that media coverage and policy-maker discussions of climate change had a significant effect on public opinion, while other factors, such as the raw output of scientific information from peer-reviewed publications, had less effect (Brulle, Carmichael and Jenkins 2012).

A relatively thorough examination of climate science coverage in newspaper opinion sections between 2007 and 2009 found that 73 percent of articles endorsed scientific conclusions of climate science while 20 percent took a skeptical or contrarian view (Hoffman 2011).

An analysis of *Wall Street Journal* editorials and op-eds on climate change published between October 2008 and January 2011 found that nearly half featured misrepresentations of climate science (Mandia 2011). And a retrospective of the editorial board's coverage of acid rain, ozone depletion, and climate change found that all the topics received similarly misleading coverage over time (Fitzsimmons and Fong 2012).

Cable news channels vary widely in their climate science coverage. A robust 2011 analysis examined cable news coverage of climate change from 2007 and 2008 (Feldman et al. 2011). The study found that nearly 60 percent of Fox News Channel coverage was dismissive of the scientific consensus on climate change while 20 percent was accepting. The network was also found to be more likely to reject claims that human activities are influencing climate change than were competitors CNN and MSNBC.

In a discussion paper, Mayer (2012) identified several prominent narratives in climate change coverage: "Don't kill the goose," suggesting that the threat climate change poses is real, but minimal; "hoax," suggesting that "science and scientists are part of a conspiracy to perpetuate a fraud"; and a "he said/she said" narrative portraying an argument over whether climate change is occurring or is human-induced. In the same paper, a content analysis of Fox News Channel's coverage from 2001 to 2010

indicates that it relied on these three narratives for about 45 percent of its coverage while other television news outlets had a much different mix of narratives.

Studies discussed below find a strong correlation between viewing Fox News Channel's coverage and holding dismissive opinions regarding climate change science. Importantly, social scientists note that it is difficult to establish a causal link between viewership and opinions since people who are more likely to be dismissive of climate change science or climate change as an issue may simply be more likely to choose Fox News Channel over its competitors.

Krosnick and MacInnis (2010) found that Fox News Channel viewers were more likely than viewers of other networks to reject scientific evidence regarding climate change; viewers who watched most frequently were also most likely to reject the evidence.

Similarly, Ramsay et al. (2010) found that more frequent viewing of Fox News Channel was correlated with an increased likelihood that respondents incorrectly thought scientists have concluded that climate change is not occurring or that views among scientists are evenly divided.

Finally, in a detailed 2010 survey study, Leiserowitz et al. (2010) found that Americans who have "dismissive" or "doubtful" attitudes toward climate change are more likely to watch Fox News Channel than other cable news networks.

Future studies can build on this research by using experimental exposure to news coverage to determine if such exposure has an effect on respondents' attitudes toward climate change. Previous studies have been limited to examining historical coverage and polling data, leaving open the question of whether exposure to contrarian views on climate change science in the media directly increases audience rejection of climate science. Experimental studies have the best chance of definitively determining the occurrence of such direct effects.

