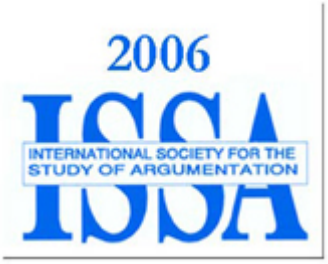
ISSA Proceedings 2006 – Obscuring The Facts: The Bush Administration And The Politicization Of Science In The Greenhouse Debate



In an essay published in the journal *Science*, Naomi Oreskes reviewed 928 refereed essays published in scientific journals between 1993 and 2003 and found that none of the studies disagreed with the consensus position that anthropogenic climate change is occurring (Oreskes). Despite widespread agreement in the scientific community, the Bush administration asserts that climate science remains uncertain. The thesis of this essay is that the Bush administration is committed to rekindling the debate over the uncertainty of climate research in the face of the scientific consensus on the subject. The Executive branch of government has embraced a distinctly minority viewpoint in an effort to portray the debate over the nature of climate change as a case in controversy. This rhetorical strategy is an effort to keep the focus on the status of "good science" and allows the administration to advance its policy of voluntary efforts to reduce the emission of greenhouse gases in the atmosphere.

To understand the administration's public argument strategy, there is a need to understand the ways that climate arguments take place in two locations. Initially, one must have a sense of the appeals used in scientific fields by scholars who hold a distinctly minority point of view on the greenhouse question. These arguments serve as the cornerstone of the administration's call for additional support for research. The circulation of these appeals is due in part to the way the media in America reports on climate change. The longstanding commitment to the journalistic principle of balancing the reporting on controversial subjects provides the critics of global warming theory with extensive coverage in print.

1. *The "Controversy over Consensus" in Climate Research*

While media outlets in the United States continue to report that there is

disagreement in the scientific community over the unprecedented rate of global warming, one finds very little proof of a genuine debate in peer reviewed scholarly research. For example, in a report released shortly after the 2004 election cycle in the United States, the Natural Resources Defense Council indicated that a team of 300 climate researchers concluded that half of the Arctic may melt before the end of the Century This melting will be accompanied by a loss of most of the Greenland Ice Sheet and a warming in the region of 7-13 degrees F (St. Clair). This report affirmed the conclusion of the noted Intergovernmental Panel on Climate Change (IPCC) in its Third Assessment Report: "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities. And in the light of new evidence and taking into account the remaining uncertainties, most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations" (Connolley). Perhaps the most convincing evidence comes from the National Science Academies of the G-8 nations, Brazil, China and India in 2005. The group concluded that the scientific understanding on climate now justifies nation states taking policy action to curtail the emission of fossil fuels.

The alleged controversy surrounding publication of Oreskes' 2004 survey on climate research highlights the strategy of obfuscation employed by climate skeptics. They are compelled to contest the scientific consensus to avoid the debate that would ensue over policy actions that might be implemented to stall the warming effect. Instead of a robust debate interrogating the economic, legal and moral implications of public policies, the skeptics continue to push the claim of uncertainty and call for the public to keep an open mind (which is translated by some into a rationale for voluntary emissions reduction strategies) on the subject of global warming.

Naomi Oreskes, a Historian at the University of California at San Diego, began her scholarly project as an effort to see if there is a disagreement between the public statements of opinion leaders in a scientific field and their research community. To test this position, she settled on looking at climate research to interrogate the nature of scientific consensus (Whipple). The review of the consensus proclamations of groups, like the IPCC, and the survey of refereed papers in the field of climate science found that the opinion leader's assertions simply affirmed the work of researchers. In fact, she did not find a *single* article in the selected group of 928 that stood in opposition to the consensus claim.

With the publication of this research, the climate skeptics weighted in quickly. She was barraged with e-mails, many of which were hostile including one that compared her to Joseph Stalin. Additionally, *Science* published a letter to the editor from a climate scholar calling her work into question. Roger Pielke, of the Center for Science and Technology Policy Research at the University of Colorado asserted that a diversity of perspectives needed to be incorporated into the scientific debate. He points out that while there may be a consensus, that consensus is nothing more than a central tendency of opinions in the community. In such a community, there is still serious disagreement amongst competing views. To have a robust debate about the importance of the consensus more oppositional viewpoints need to be included in the dialogue (Pielke).

The viewpoint of scholars with a minority perspective is not popular in the scholarly community, but it seems to hold sway in other argument communities. At this point in the public debate, the scientific opposition seems to have sold some U.S. policymakers, and many in the general public, on the following claim: the U.S. should not act based on the current consensus which may ultimately be proven false. Alternatively, I believe that given the potentially catastrophic consequences, the U.S. government cannot wait to act in the hopes that a distinct minority may be correct.

Beyond contesting the significance of the Oreskes finding, the climate skeptics pointed to the fact that *Science* would not publish a survey, undertaken by Benny Peiser an anthropologist at John Moores University, to validate the well circulated claim that the climate research community wished to ignore or suppress alternative viewpoints (Peiser, 2005a). Peiser's research concluded that 3% of essays, 34 articles of the 1000 surveyed, rejected the consensus claim. Additionally, his work concluded that 57% of the research was neutral to the consensus position. Peiser is a well published author with a line of research that assaults the consensus claims in the scientific community (Peiser, 2005b).

In response to this "controversy" Peter Norvig, Director of Research at Google, carried out a study of his own and ultimately concurred with Oreskes. In his review of the relevant scholarship Norvig pointed out that Peiser's study included non-peer reviewed work. Peiser seemed to be asking a slightly different set of questions in his work and accessed a broader range of texts for his study. Norvig then carried out a third survey of the literature on the question of whether there is a consensus related to consequences anthropogenic warming. In his review Norvig concluded that there was a substantial amount of research that serves as

the foundation of the consensus claim. Interestingly, he speculates that his own limited knowledge on the subject was due, in part, to the failure of the press to effectively cover the issue (Norvig, 2005).

The dispute surrounding the publication of Oreskes study highlights a few of the more important arguments employed by the climate skeptics in their effort to kept the point of stasis on the quality of global warming research. The opposition seems uninterested in posing questions that might move the debate over global warming from questions related to the accuracy of greenhouse models. Rhetorically, they limit themselves to a very narrow range of issues. First, they assert that skeptical climate research is mainstream research and should be evaluated alongside of the consensus viewpoint to enrich the quality of scholarship. Second, when scientific journals elect not to publish their research, the skeptics cry foul and accuse the editors of establishing a very narrow orthodoxy in the field of greenhouse research. These arguments serve as the backbone of the Bush administration's climate policy. For the Bush administration, advancing the position that the U.S. needs additional science requires some expectation that new research would not simply replicate the work of the last decade by climatologists from across the globe. The climate skeptics provide the camouflage the administration needs to sustain the commitment to improving science.

2. *Media Coverage of Climate Change*

One reason the press in the United States has failed to elaborate the scenarios outlined in the mainstream climate research is the journalism culture's commitment to balanced reporting on a subject. As a result of this tendency, newspaper and television reporters in the United States seek out opposing viewpoints on the issue of global warming before publishing a story. The result of this ethical test is that in many instances, the debate is not moved beyond the true/false exchange that inevitably devolves into an acrimonious rhetorical altercation between consensus researchers and the greenhouse skeptics.

In the case of climate research, the media often finds itself relying on fringe researchers, whose work in some cases is underwritten by the petroleum industry, when they look to present the opposing viewpoint. With a limited number of people holding the skeptical position, the same names and faces tend to be circulated in the print and mass media. When a reporter publishes an essay without the skeptics point of view, industry funded representatives demand time and space in the name of balance. The news magazines and newspapers are

accused of the same intellectual narrowness that Peiser decried when *Science* decided against publishing his work.

The journalistic standard of balance is an important safeguard to ensure effective reporting in cases that involve values and option. For example, the claim that the United States should establish an immigration policy that provides amnesty for undocumented workers might require a declaration of the opposition position. That story revolves around the opinion of what should be done to resolve the problems of social services being over burdened in the states which border Mexico, undocumented workers being exploited by unscrupulous employers and the U.S. borders being vulnerable to terrorist infiltration. In such a circumstance, a reporter may provide roughly equivalent space to the competing positions.

In the case of global warming, the commitment to journalistic balance is counterproductive. Ross Gelbspan, Pulitzer Prize winning author, describes the problem:
"Granted, there are a few credentialed scientists who still claim climate change to be inconsequential. To give them their due, a reporter should learn where the weight of scientific opinion falls – and reflect that balance in his or her reporting. That would give mainstream scientists 95 percent of the story, with the skeptics getting a paragraph or two at the end. But because most reporters don't have the time, curiosity, or professionalism to check out the science, they write equivocal stories with counterpoising quotes that play directly into the hands of the oil and coal industries by keeping the public confused" (Gelbspan).

The concern, reflected in Gelbspan's two books *Boiling Point* and *The Heat is On*, is that the failed attention to the Code of Ethics has contributed to the inadequate media coverage of climate change in the United States. While media coverage of the greenhouse effect in the United States may be fair and balanced it is in no way accurate.
This position is validated by an empirical review of articles found in the newspapers of record in the United States (*New York Times, Washington Post, Los Angeles Times* and *Wall Street Journal*). Jules and Max Boykoff identified more than 3,000 articles on climate change and the greenhouse effect published between 1990 and 2002. They extracted a sample of 600 essays and found that a majority were organized to conform to the journalistic expectation of balanced reporting. The study found that more than 50% of the articles gave equal space to the claims that climate change could be the result of either fossil fuel emissions or

simply natural fluctuations. Only 35% of the articles emphasized the role that emissions play in global warming while acknowledging the existence of an opposing point of view. The study concluded that there was a divergence in media coverage in the United States from the IPCC consensus during the period between 1990 and 2002 (Boykoff).

In the face of research demonstrating extensive impacts associated with the use of fossil fuels, climate skeptics remain committed to debunking the claims of a consensus. If anthropogenic climate change is taken to be a scientific fact, industry expects to incur significant increases in operating costs to abate the emission of greenhouse gasses. The campaign against mainstream greenhouse science is intended to muddy the issue to the point that the U.S. does not get beyond the issue of what constitutes good science. In many ways, for much of the last decade the print media has unwittingly served the interest of the climate skeptics and their corporate benefactors.

The members of the skeptical community have appropriated the term junk science, widely used by the tobacco industry apologists in the 1980, when discussing global warming with journalists and media pundits. Junk Science is understood to be science used to push a political agenda. The scholarly community's refusal to publish the skeptic's line of work, for instance, is used to proof that mainstream climatologists practice "junk science." In a recent *Wall Street Journal* opinion piece, the Alfred P. Sloan Professor of Atmospheric Science at MIT Richard Lindzen stated that scholars are punished when they elected to call the "junk science" of mainstream climate researchers into question. The use of the term by an authority with Lindzen's scholarly record adds immensely to the opposition and is circulated by a variety of media outlets (Lindzen).

The allegations that "junk science" is underlying climate science research – should be of relevance to people concerned with the rhetorical devices that corporations employ to advance their interests in public argument. Of course it is in the petroleum industry's economic interest to insist that the use of their product should continue unabated (Livesey). In addition, understanding how the climate skeptics attacked consensus research is of importance to those who wish to explain the power and limitations of science in society and to policy analysts who routinely turn to the authority of "science" when negotiating the implications of public policy. While scientists can't speak with absolute certainty on this topic, scholars need to work through the issues of when scientists should speak publicly to facilitate a robust debate on remedies.

There has been anecdotal evidence to suggest there is a link between the rhetorical strategy of the climate skeptics and the tobacco industry advocates who suggested that smoking did not have second hand impact in the 1980s and 1990s (Hertsgaard). That linkage is made clear when one looks at the scholarly research record of Dr. Frederick Seitz. He is a winner of the National Medal of Science, a former President of the National Academy of Sciences, and a retired scholar at Rockefeller University. He former consulted with R.J. Reynolds (earning in excess of $500,000) and now works to call into question the work of mainstream climatologists. Writing in his capacity of an opinion leader on global warming, Dr. Seitz accused the Clinton administration of doctoring the science and accused unscrupulous scientists of generating the exaggerated environmental threat when the IPCC 1995 report was released. This is the same Frederick Seitz who proclaimed that second hand smoking posed no health risks in the *Wall Street Journal* a decade earlier. While one cannot prove that Seitz's current work is done at the behest of the oil industry, the George Marshall Institute, of which Frederick Seitz is the emeritus chair, has been the recipient of significant contributions from ExxonMobil. Since there are limited number of high profile figures in the skeptics camp (including the noted fiction author Michael Crichton and Professor Richard Lindzen), much of the advocacy is carried out by individuals funded by the energy and automotive industry. A 1991 internal memo asserts that the goal of the greenhouse campaign is to "reposition global warming as theory rather than fact" (Vanity Fair). John Passachantado, executive director of Greenpeace USA, has gone so far as to warn oil executives "You're going to wish you were the tobacco companies once this stuff hits and people realize you were the ones who blocked [action]" (*Vanity Fair*).

The assertion that anthropogenic climate change has not been proven to be responsible for warming dove-tails neatly with the overall public argument strategy of the energy industry. Since science has failed to prove, with certainty, that man-made fossil fuel consumption is dangerous, then emitters should determine whether to bear the costs of the transition to alternative fuels. As a result, the strategy is to poke any hole in the science to allow energy users the choice to emit without suffering the consequence of government regulation. While this ploy worked for the tobacco industry, to the tune of thousands of unnecessary second hand smoking deaths, the costs could be far greater in the case of greenhouse emissions. The potential impact on the ecosystem may be catastrophic if the United States continues to use fossil fuels at a record pace

year after year.

Given that science can never speak with certainty and that those on the disciplinary margin proclaim they are not given a fair chance to be published in the refereed journals, it is unlikely that any consensus will ever satisfy the scholars affiliated with petroleum interests. While one can not rule out the possibility that the current consensus on human generated climate change may be thoroughly incorrect and the science flawed, there is really no rational to support the contention that current public policy decisions in the United States should be based on the speculation that mainstream science is wrong (Mooney).

3. *The Bush Administration and Scientific Uncertainty*

Throughout the first six years of the GW Bush administration, there have been a series of conflicts related to public policy and science. Many of President Bush's major speeches and policy initiatives on a variety of scientific subjects were products of his first term. A thorough, and rather scathing, review of the administration's science policy was prepared for Representative Henry Waxman by the US House of Representatives Minority Staff in 2003 (Waxman). The report entitled "Politics and Science in the Bush Administration" chronicles a variety of subjects including: Abstinence Only Education, Arctic Natural Wildlife Reserve, Condoms, Drinking Water, Global Warming, Stem Cells, Wetlands and Workplace Safety. The report concludes that interference with science has led to misleading public statements by the President, inaccurate Congressional reports, altered and suppressed scientific reports, and the suppression of scientific dialogues. In each case chronicled in the study, industry was the beneficiary of the Bush policy decision. While the current administration is not the first to politicize and manipulate science at the behest of a pre-determined policy agenda, it is the first to allow that manipulation to permeate the entire scientific apparatus of the Federal Government.

Russell Train a former Administrator of the Environmental Protection Agency in the Nixon administration has gone so far as to claim: "There has been a tendency on the part of this administration, this White House, to distort science. And if they don't like the science, they take out that particular finding. . . I think this administration is not a conservative administration. I think it's a radical administration. It represents a radical rollback of environmental policy going back to a period many, many years ago. It's backward" (Train).

The next section of this presentation has three objectives. First, the rhetorical

strategies used by President Bush when addressing global warming and the emission of greenhouse gases will be detailed. Second, the administrations efforts to alter, distort and suppress science will be outlined. Finally, the administration's use of government appointments to champion the position of industry will be summarized.

A. *President Bush's Public Statements on Global Warming*

While there are many public appearances in which President Bush makes anecdotal statements about global warming, to this point in his Presidency, he has delivered five major addresses on the subject. The first few minutes of the June 11, 2001 address provided the framework for the administration's response on the subject: "I've just met with senior members of my administration who are working to develop an effective and science-based approach to addressing the important issues of global climate change. . . That is why I am today committing the United States of America to work within the United Nations framework and elsewhere to develop with our friends and allies and nations throughout the world an effective and science-based response to the issue of global warming" (Bush, 2001). This commitment to a science based response to climate is an appeal found in many of the speeches the President delivered on the subject. He further refined the appeal in making reference to sound science in response to the emission of greenhouse gases. In his 2002 speech announcing "The Clear Skies & Global Climate Change Initiative," President Bush introduces the concept of sound science. Without directly calling the work of scientists into question, President Bush advocates the development of sound science. This science, the result of the Administration's study, would replace the current science circulated in the greenhouse community. This speech also serves to provide a rationale for sustained economic growth to resolve the greenhouse problem. If the level of progress on reducing greenhouse emissions, set by the United States government, is insufficient when we reach the year 2012, the United States would simply increase market based incentives. For George Bush, economic growth is the solution to the warming problem (Bush, 2002).

The scientific interrogation of the Bush administration would call for further policy action a full four years after he leaves office. If the science points in the direction of change, that change would be based upon voluntary incentives. As President Bush has alluded to in the past, sound science did not serve as the basis of decision-making during the Clinton administration, thus the need for more

governmental research. For free market supporters, like President Bush, the Kyoto Protocol was not formulated based upon sound science. Rather it was a political document intended to punish the American economy at the behest of environmental activists from across the globe. The consensus claim used by climate scientists is not the result of sound science. There is a need, according to President Bush, to advance "the science of climate change." He does not use the term "junk science" or refer to the work of the climate skeptics in any of his speeches. However, President Bush affirms that the critics are correct in calling science into question. With the support of the Executive branch, the critics are emboldened to continue their assault on climate science under the guise of helping to develop the sound science that should frame public policy.

Given the incomplete nature of climate research, the President equipped himself with a ready-made answer to any scientific report calling for quick policy action. The publication of a greenhouse finding is nothing more that another piece of evidence needed in the project to construct sound climate science. The reason we can't come to quick closure on the question of global warming is that the administration finds itself in the early stages of an exhaustive program intended to improve the science The President outlines that commitment: "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. Today, I make our investment in science even greater. My administration will establish the U.S. Climate Change Research Initiative to study areas of uncertainty and identify priority areas where investments can make a difference. I'm directing my Secretary of Commerce, working with other agencies, to set priorities for additional investments in climate change research, review such investments, and to improve coordination amongst federal agencies. We will fully fund high-priority areas for climate change science over the next five years We'll also provide resources to build climate observation systems in developing countries and encourage other developed nations to match our American commitment. . . So we're creating the National Climate Change Technology Initiative to strengthen research at universities and national labs, to enhance partnerships in applied research, to develop improved technology for measuring and monitoring gross and net greenhouse gas emissions, and to fund demonstration projects for cutting-edge technologies, such as bioreactors and fuel cells" (Bush, 2001).

The working assumption is that the United States government can produce sound

science with an additional infusion of research dollars. In the effort to produce sound science, other countries are invited to participate in the research. But, make no mistake; the United States had earned the leadership position in any collaborative effort.

B. *The Bush Administration's effort to alter, distort and suppress science*
In June of 2002, a report produced by the EPA and the Department of State endorsed the position that human activity was responsible for climate change and there was a possibility of a profoundly negative effect on the environment in the long term. When fielding a question on the conclusion of the report the President is reported to have said: "I read the report put out by the bureaucracy," and when asked about the EPA report, adding that he still opposes the Kyoto treaty (CBSNews.com).

Following this political miscue, the administration took a more preemptive tact by removing entirely the global warming section from an annual EPA report beginning in 2002. By 2003, the Administration published its comprehensive report on the environment without a mention of climate change. In place of an analysis of global warming, the report acknowledged it could not cover this complex question. According to the *New York Times*, while earlier drafts of the report tackled the question of global warming, the administration called for its removal prior to publication of the document.
Jeremy Symons, a former climate policy advisor in the Bush Administration, reported that by 2003 the White House tried to alter an EPA report on global warming. In response to the White House edits, an internal memo circulated within the EPA stated that the report no longer represented the scientific consensus on climate. In some cases, rather than working through political edits to scientific reports, the EPA would redact climate commentary from reports (Symons).

During 2002 and 2003, much of the editing of climate research was done by Philip Cooney the Chief of Staff for the White House Council on Environmental Quality (Revkin, 2005). Before joining the Bush Administration, he served as a lobbyist for the American Petroleum Institute. In some cases he was reported to have enhanced the claim that climate research was uncertain. For example, he added the word extremely to a section of a report which now reads: The attribution of causes of biological and ecological changes to climate change or variability is *extremely* difficult.

Unsurprisingly, the administration has implemented guidelines that restrict scientists from speaking with the public. The White House must approve any interviews done by scientists on the greenhouse effect or other "controversial" scientific questions. According to National Oceanic and Atmospheric scholars, the press limitation amounts to a veto that can be used to limit the public circulation of ideas (Eilperin). The most noted US climate researcher, James Hansen, went so far as to accuse the Administration of silencing researchers who worked on climate issues. Hansen has been a NASA climate modeling researcher since 1978 and has a track record of challenging Republican Presidents on the issue of climate change. In 1988, he presented testimony to a Congressional committee which brought the climate issue to the public's attention in the United States. After almost thirty years in the profession, Hansen remains one of the most credible researchers in the field. According to Hansen, by 2003 the administration attempted to limit reporter's access to him as well as his ability to speak publicly on the issue of global warming. Interestingly, the NASA spokesperson who allegedly edited writings and attempted to limit e-mail access to Dr. Hansen resigned his post within a month of Hansen's claim of the suppression of speech at the agency.

C. *Manipulating the appointment process*

The House Minority Staff Report documents the Bush administration's willingness to deny appointments to scientific committees for researchers not supporting the agenda of big oil. Dr. Robert Watson had served six years on the Intergovernmental Panel on Climate Change (IPCC) including a stint as the chair of that body. Following the release of the 2001 IPCC report that indicated that science had come to the conclusion that anthropogenic emissions were responsible for warming, the Bush administration moved to oppose the re-appointment of Watson to the group. A memo sent from ExxonMobil to the White House asked if Watson could be removed from his post. Without providing a scientific rational for its decision, the Department of State opposed his reappointment (Waxman). This politicization of the appointment process was a source of discomfort for many in the scientific community.

Many appointments in every agency are inherently political by nature. In the case of the Bush administration, some political appointees have worked to limit the public dissemination of scientific information that might be harmful to the President's free market agenda. During the 2004 election cycle, the NASA press office was pressured to curtail press releases on topics including: glaciers,

climate and atmospheric pollution (Revkin, 2006). Press officer, Gretchen Cook-Anderson was told by Bush appointee Glenn Mahone that a press conference on some new ozone readings should be delayed until after the election. While NASA administrators denied the assertion, a review of press releases on the NASA web page show a four fold reduction in the number of releases beginning in early 2004 and continuing through 2005.

4. *Implications and Conclusion*

By calling the greenhouse consensus into question, the administration is able to deny science an authoritative voice in the debate over public policy remedies. Rather than moving the point of conflict in the debate to questions of remedy and cost, the administration continues to demand genuine scientific proof. All the while, the signs of global warming can be seen even by an untrained eye.

The denial of the consensus is an essential component in the strategy to legitimate long-term free market remedies as the primary response to the emission of fossil fuels into the atmosphere. By editing scientific findings and suspending governmental research that confirmed the international consensus, the administration methodically works to cast doubt on scientific opinion. The administration is deploying rhetorical strategies, adapted from the tobacco industry in the 1970s and 1980s, to cloud the issue of global warming. Specifically, the administration is recycling the claim that the opposition is engaged in junk science. The term junk science is circulated in the mass media and on the Internet whenever a report of the consensus of anthropogenic climate change surfaces in the public. Capitalizing on the work of political allies, the administration dismisses conflicting findings as the work of bureaucrats and scientists with a political agenda, or worse, it is stated that the findings should be added to the administration's on-going climate study.

Much like his father never has to directly let fearful white suburbanites know that Willie Horton was black during the contentious race based election cycle of 1988; President GW Bush has not found it necessary to use the term junk science when commenting on global warming. His role is to gently call into question the quality of current science and provide a remedy, more study, which does not run the risk of government imposed restrictions of emitters. Other voices, skeptical researchers and conservative pundits, are let to cast aspersions against the junk scientists and environmental apologists

The Republican Party had a long-standing commitment to science throughout the

19th and into the middle of the 20th century. In the 19th Century, The National Academy of Sciences was founded by Abraham Lincoln and William McKinley was a two term president, winning elections over a creationist, William Jennings Bryan. One of the United States most science friendly Presidents of the 20th century was Dwight Eisenhower. Ike was committed to using science to improve both the defense and educational sectors of the economy (Thompson). To simplify the current failure to respond to warming as something linked to the extremism of the current administration allows powerful voices to continue to unduly influence public policy.

While Al Gore's documentary is receiving positive reviews for its treatment of global warming, one should not forget he was unable to implement a legislative agenda to curb global warming during the Clinton-Gore years. Those who oppose global warming have a friend in George Bush, but he is not the only powerful ally that industry has in Washington D.C. If one merely focuses of the failings of the current administration, and demonizes the President's failure to act, there is a risk that the on-going campaign against climate science will continue to drive the political discourse in the United States. While it is important to understand the devices used by George Bush and his administration, argument critics would be well served to pursue larger questions related to this debate.

In addition to highlighting the argument strategies that seem to be working in the current debate, argument scholars should find other ways to influence policy on this issue. First and foremost, Americans need to be equipped with better skills to assess public controversies. There is a tendency for many to simply delegate responsibility for this important issue to experts. Which begs the question of how one would credential someone as an expert in this area? In a conflict adverse culture, individuals would be served by training in argumentation and debate. Such training may prepare individuals to participate in the most important issue confronting the world in the 21st century.

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