

Featuring Skeptics in News Media Stories About Global Warming Reduces Public Beliefs in the Seriousness of Global Warming

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June 2009

Introduction

Many climate scientists have said that the earth's temperature has been increasing, that this temperature increase has been caused largely by human activity, and that the potential negative consequences of this temperature increase warrant remedial action (Intergovernmental Panel on Climate Change, 2005; Oreskes, 2004). Others have argued that the science of global warming is uncertain, that it is unclear whether or not human activity has impacted climate change, and/or that remedial action is inadvisable (see Jacques, Dunlap, & Freeman, 2008; McCright & Dunlap, 2000).

During the last two decades, news media coverage of global warming has often offered "balanced" accounts of the issue, quoting mainstream scientists and skeptics in the same story (Antilla, 2005; Boykoff & Boykoff, 2004; Boykoff & Roberts, 2007; Zehr, 2000).

Balanced accounts might be considered admirable efforts to abide by the journalistic norms of objectivity and fairness (Boykoff & Roberts, 2007). However, critics have noted that balanced reporting of this particular issue actually conveys a misleading portrait of the science of climate change, since scientists endorsing the mainstream view appear to outnumber skeptics (Boykoff & Boykoff, 2004; Oreskes, 2004).

Our study explored the impact of including skeptical voices in news media coverage. In particular, we explored whether adding a skeptic to a story about a mainstream scientist's views or findings would:

- Reduce the number of people who perceive agreement among scientific experts on this issue
- Reduce belief in the existence of global warming
- Reduce people's confidence in their beliefs about global warming's existence
- Reduce the number of people who think global warming will be bad for people in general
- Reduce the number of people who think global warming is a serious problem.
- Reduce the number of people who believe that global warming is caused by human activity
- Reduce the degree of personal importance that people attach to the issue

Study Design

The participants in this study were 2,883 members of the SurveySavvy panel, owned and operated by Luth Research, who were invited to complete a short survey over the Internet in exchange for a chance to win a prize. This is not a nationally representative sample of American adults. The members of this internet panel were recruited from the general population in several ways, including random digit dialing phone calls, phone calls to professionals working in the

information technology sector whose telephone numbers were obtained from professional lists, online advertisements (via the Luth Research website, news sites, blogs, and search engines), and emails from businesses or non-profit organizations with which the prospective panelists were affiliated. A subset of people who responded to these invitations and joined the SurveySavvy Panel were invited to complete the present survey. The panelists who were invited to participate in this survey were selected so that the final group of participating people would resemble the nation in terms of some demographic variables. Respondents completed the survey between January 15 and 18, 2009.

The sample was divided randomly into five groups of equal size. Four of these groups each watched one of four short television news stories at the beginning of the study and answered general questions about it (the stories are at [url]). The fifth group watched no television news story.

Two of the news stories presented an interview with a mainstream scientist commenting either on the existence of global warming or its effects (we refer to these stories as “Existence Without Skeptic” and “Consequences Without Skeptic”). The other two news stories featured the same mainstream scientists who were then followed by an interview with a skeptical scientist (“Existence With Skeptic” and “Consequences With Skeptic”).

After watching the news story, respondents reported:

- Whether they believe that scientists agree that global warming has been happening
- Whether they believed that global warming had been happening or not.
- How certain they were that global warming had been happening.
- Whether they believed that human activity is an important cause of global warming or not
- How personally important they consider the issue of global warming to be
- Whether they think the consequences of global warming would be bad if nothing is done to deal with it
- How serious a problem they consider global warming to be
- Whether they would like the federal government to take more action to deal with global warming
- Whether they would support or oppose a cap-and-trade system for limiting greenhouse gas emissions

By comparing answers to these questions across the five subgroups of respondents, we could assess whether exposure to the skeptical message had an impact on people’s thinking.

Results

Viewing an interview with a mainstream scientist only increased the number of people who believed that global warming has been happening and that humans have caused global warming.

Adding the skeptic to the mainstream scientific message significantly reduced the number of people who endorsed a variety of beliefs and attitudes. Specifically, it made people:

- Less likely to believe that scientists agree that global warming has been happening (Figure 1)
- Less certain that global warming has been happening (Figure 2)
- Ascribe less personal importance to the global warming issue

- Less likely to believe that global warming will be bad for people (Figure 3)
- Less likely to believe that global warming is a very serious issue
- Less likely to support more government action to deal with global warming (Figure 4)
- Less likely to support a cap and trade system to limit greenhouse gas emissions (Figure 5)

Figure 6 illustrates the cognitive pathway by which the skeptic influenced policy preferences. Watching the skeptic decreased perceptions of consensus among scientific experts, and this decreased perception of consensus led respondents to be less supportive of government action in general and of cap and trade policy in particular.

Discussion

The news stories that our respondents watched featured the views of only one skeptic and made no claims about the prevalence of such skeptical views. Nonetheless, respondents generalized from watching this skeptic to scientists more generally, perceiving less agreement in the scientific community broadly. Our findings suggest that balanced news coverage may have been at least partly responsible for discrepancies between the American public and the scientific community on issues of climate change.

References

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Table 1.
Percent of People Who Held Various Beliefs

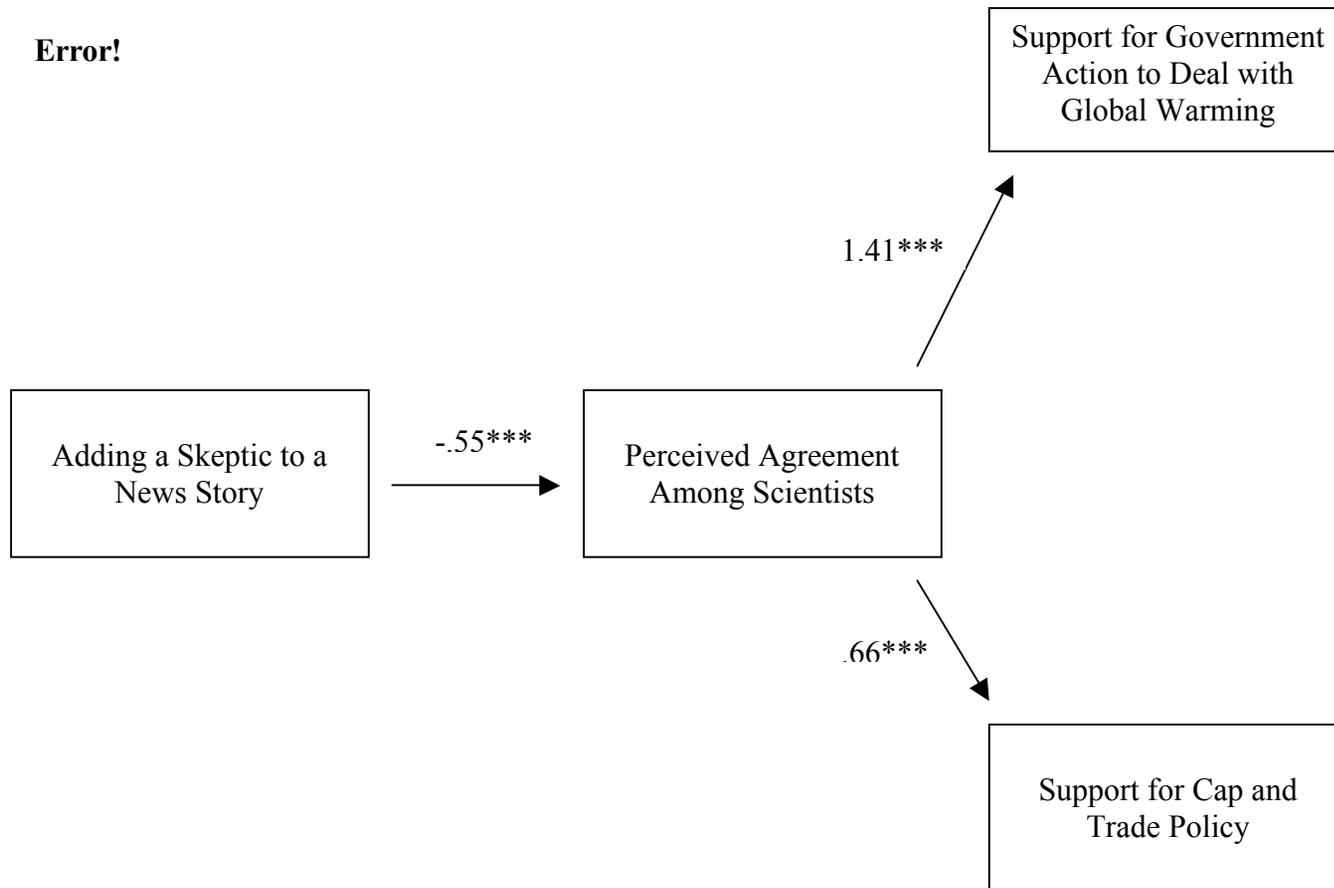
	No Skeptic	Skeptic	No Video	Difference: Skeptic—No Skeptic	Difference: Skeptic—No Video	Difference: No Skeptic—No Video
Most scientists agree with one another about GW's existence	48.2%	35.8%	45.6%	-12.4***	-9.8***	+2.6
GW has been happening	81.2%	81.1%	76.4%	-0.1	+4.8**	+4.8*
High certainty that GW as been happening	57.5%	50.7%	56.9%	-6.8**	-6.2+	+0.6
GW has been caused by human activity	81.1%	81.0%	77.7%	-0.1	+3.3+	+3.4+
GW is highly Personally important	47.5%	42.4%	46.4%	-5.1*	-4.0	+1.1
GW will be bad for people	67.3%	60.6%	63.6%	-6.7**	-3.0	+3.7
GW is a serious problem	49.1%	41.3%	45.9%	-7.8***	-4.6	+3.2
The federal government should take action to deal with GW	64.7%	60.7%	60.7%	-4.0*	0.0	+4.0+
Support cap and trade	70.7%	66.5%	68.2%	-4.2*	-1.7	+2.5
N	1,203	1,070	610	2,273	1,680	1,803

Note. ***p<.001 **p<.01 *p<.05 +p<.10

Figure 1.

How Adding a Skeptic to a News Story about global warming changed support for government action and support for cap and trade

Error!



Note. N=2,273. ***p<.001.