

# Extreme weather news may not change climate change skeptics' minds

March 27 2019, by Ryan Weber

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The year 2018 brought [particularly devastating natural disasters](#), including hurricanes, droughts, floods and fires – just the kinds of extreme weather events scientists predict will be [exacerbated by climate change](#).

Amid this destruction, some people see an opportunity to finally quash [climate change](#) skepticism. After all, it seems hard to deny the realities of [climate](#) change – and object to policies fighting it – while its effects visibly wreck communities, maybe even your own.

News outlets have hesitated to connect [natural disasters](#) and climate change, though these connections are increasing, thanks to [calls from experts](#) combined with [more precise data about the effects of climate change](#). Media voices like The Guardian [advocate for more coverage of the weather events](#) "when people can see and feel climate change." Harvard's Nieman Foundation [dubbed 2019](#) "The Year of the Climate Reporter." Even conservative talk radio host [Rush Limbaugh worried](#) that media predictions about Hurricane Florence were attempts to "heighten belief in climate change."

But a recent study from Ohio State University [communications scholars](#) found that [news stories](#) connecting climate change to natural disasters [actually backfire among skeptics](#). As someone who also studies scientific communication, I find these results fascinating. It's easy to assume that presenting [factual information](#) will automatically change people's minds, but messages can have complex, frustrating persuasive effects.

## Investigating how skeptics hear the news

Social scientists have an unclear understanding of how climate change news affects public opinion, as not enough research has specifically explored that question. To explore the question, researchers from Ohio State recruited 1,504 volunteers. They divided them into groups who read news stories about natural disasters – fires, hurricanes or blizzards – that either emphasized or omitted the role of climate change.

Cleverly, the researchers recruited participants from [geographic areas](#) most likely to experience the disasters they read about; for instance, participants in hurricane-prone areas read the [news articles](#) about hurricanes. Further, the researchers ran the study in fall 2017, during hurricane and wildfire season, when these sorts of disasters are presumably top of mind.

After reading, participants answered 11 questions meant to measure their resistance to the article, including "Sometimes I wanted to 'argue back' against what I read" and "I found myself looking for flaws in the way information was presented."

It turned out that climate change skeptics – whether politically conservative or liberal – showed more resistance to the stories that mentioned climate change. Climate change themes also made skeptics more likely to downplay the severity of the disasters. At the same time, the same articles made people who accept climate change perceive the hazards as more severe.

The study findings suggest that reporting the relationship between climate change and hazardous weather may actually increase the skepticism of skeptics, even in the face of blatant contrary evidence. Psychologists call this the [boomerang effect](#), because the message ultimately sends people in the opposite direction.

## Who's hearing the message matters

The boomerang effects seen in this latest study are less surprising than you might think. Researchers have tried a variety of strategies, including [emphasizing scientific consensus around climate change](#) and describing the [negative health impacts of climate change](#) on people near and far, only to find that skeptics often end up more entrenched after reading attempts to persuade them.

Messages can work when they use place to increase people's concern and willingness to act on climate change, but individual studies show inconsistent results. [One new study](#) gave Bay Area participants maps showing the increased flood risk in their zip code due to projected sea level rise. The maps made no difference in people's concern about the [effects of climate change](#) on future generations, developing countries or the Bay Area. But the maps did make people who accept climate change less concerned that it would personally harm them. These participants may have replaced their abstract, apocalyptic assumptions about climate change threats with the more tangible predictions, causing them to feel less vulnerable.

[Another study](#), also involving Californians, generated slightly more success for place-based climate change news, but only among participants who were already [concerned about climate change](#). Study participants read news articles explaining that climate change would increase droughts either globally or in California. The global message made people more likely to want policy changes, while the local messages made people more likely to say they would change their personal behavior.

Place-based appeals often have some [positive effect on people's willingness to act](#) on climate change and environmental issues.

But most studies about local messaging suggest that you cannot persuade everyone with the same message. A complex relationship of factors – including previous beliefs on climate change, political affiliation, and attachment to place and gender – can all play a role.

And psychologists offer compelling reasons [why persuasive attempts sometimes backfire](#). Messages about the local impact of climate change might actually replace people's abstract, altruistic values with utilitarian concerns. In the case of skeptics resisting news about climate-driven disasters, the researchers from Ohio State suggest that these people are engaged in [motivated reasoning](#), a cognitive bias where people force new and threatening information to conform to their pre-existing knowledge.

## More news may not convince

Resistance to news about climate change disasters might be frustrating, but even the media often ignore the role of climate change in disasters, according to an analysis by the nonprofit consumer advocacy organization [Public Citizen](#). They found only 7 percent of American news stories about hurricanes mentioned climate change in 2018. Percentages increase for stories about wildfires (27.8 percent of stories), extreme heat (34 percent of stories) and drought (35 percent of stories). But an overwhelming amount of extreme weather news coverage never mentions climate change.

Some omissions are particularly striking. Liberal research organization [Media Matters](#) found only one mention of climate change in 127 broadcast news stories during two weeks of extreme heat in 2018. Only about 4 percent of stories about Hurricane Irma and Harvey mentioned climate change, according to an [academic analysis](#) that included The Houston Chronicle and the Tampa Bay Times.

Despite these low numbers, U.S. climate change coverage related to

extreme weather and disasters actually rose in 2018, according to the report from Public Citizen. This increase aligns with a trend of news slowly improving its climate reporting. For instance, U.S. print media has [dropped some of the skepticism](#) from its climate change reporting, both in terms of outright skepticism of the basic science and a subtler version that involved creating a false balance by [including voices which both affirm and deny](#) the reality of climate change.

Even if the media continues to increase and improve its climate change coverage, it might not change skeptics' minds. Of course, the media has a responsibility to report the news accurately, regardless of how some people process it. But those hoping that climate change news will convert skeptics might end up disappointed.

Given this resistance to news, other approaches, such as [avoiding fear-inducing and guilt-based messaging](#), [creating targeted messages about free-market solutions](#), or deploying a kind of ["jiu jitsu" persuasion](#) that aligns with pre-existing attitudes, may prove more effective at influencing skeptics. In the meantime, social scientists will continue to investigate ways to combat the stubborn boomerang effect, even as the consequences of climate change intensify all around us.

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