Influencing Audience Perceptions: How Fox News, CNN & MSNBC Portray Climate Change in 2019

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Abstract

Since more Americans tend to trust cable news sources more than local and network television stations, Fox News, MSNBC, and CNN can play a significant role in shaping audience opinions and Americans' perceptions of topical issues. This study analyzes cable news coverage of climate change through qualitative and quantitative methods, identifying aspects of media framing and agenda setting. Thirty videos each from Fox News, CNN, and MSNBC were selected from July 1 to October 31, 2019. This time frame includes cable news coverage from hurricane season, the UN General Assembly, the Democratic presidential primary debate, climate protests, and Amazon wildfires. The study identifies the number of news stories dealing with climate change that were aired on each network over the course of four months and reveals different media frames, or angles, in which climate change is covered. The study discovers that coverage of climate change reflects the political affiliation of each channel's viewership. Both agenda setting and framing theories shed light on why cable news viewers may believe what do about climate change today.

I. Introduction

A number of concepts help explain how media outlets influence audience views of climate change. It is a common perception that political conservatives are often skeptical of issues related to climate change, while liberals tend to stress the urgency of solving climate issues. According to a 2017 Pew Research survey, 95% of "Solid Liberals" believe human activity to be the main cause of climate change. However, among "Core Conservatives," the survey found that less than a quarter believed climate change to be real, and only 5% of those believed human activity to be a cause ("Political typology: Environmental attitudes," 2017). These statistics can help explain the nature of climate change coverage on each of the "big three" cable news outlets, which collectively serve as the main source of news for 29% of Americans, according to a 2004 Pew Research survey (Morris, 2007).

Considering these statistics, this study examines the ways in which Fox News, CNN and MSNBC influence audience opinions of climate change in 2019. This study's hypothesis is that the reporting and opinions broadcast on Fox News, CNN, and MSNBC concerning climate cater toward their respective viewers' political affiliations.

II. Literature Review

Since nearly a third of Americans acquire their news from Fox News, CNN and MSNBC, reporters, broadcasters and producers play a substantial role in shaping public opinion. Jacquette Dale, author of *Journalistic Ethics,* explains the breadth of responsibility that comes with this role: "The potential consequences for their telling or not telling the truth, the mass uptake of the information they distribute, the amount of respect they command as authorities about the state of the world, and the far-reaching ways in which people rely on the kind of information they report for their own decision making, gives [journalists] a higher degree of responsibility for honesty in their professional work than applies to the general public" (Dale, 2016, p. 9-10).

In order for people to form opinions on any given issue, they must first be informed about it. The public's knowledge level in current events and current issues stems from the media, and, in the case of news platforms, journalists. Killenberg argues that journalists should be the "ultimate *public servants*" (Killenberg, 2008, p. XV). "News 'for the people' acknowledges that journalism, at its best and truest, arms citizens with the knowledge to govern themselves" (Killenberg, 2008, p. xvi). This implies that, for people to govern themselves, they must acquire the necessary facts to form their opinions, which is where the press comes into play.

To illustrate his point, Killenberg cites journalism scholar James Carey: "The press should not present itself as a seer, but simply as doing the best it can to figure out today what is going on" (Killesberg, 2008, p. 6). Carey's statement implies that journalists have the responsibility to report the facts and to interpret "what is going on," rather than reporting through their own lens. This requires journalists to recognize any biases misconceptions, or "blind spots" they may have as a result of their upbringings or cultural norms.

The "big three," – Fox News, MSNBC and CNN – are the main sources of news on cable television, and they are gaining popularity. According to the Pew Research Center's 2019 Cable News Fact Sheet, the combined number of cable news viewers across Fox News, MSNBC and CNN increased by 8% during prime time (8 p.m. to 11 p.m.) in 2018. Although cable news is an increasingly popular method of obtaining news, more Americans watch local and network television than they do cable television, according to a 2018 Washington Post Fact-Checker Poll. Ironically, the poll also revealed that people trust cable news sources, specially Fox News, MSNBC and CNN, more than they do local and network television stations (Guskin, 2018).

The audience demographics for Fox News, MSNBC and CNN vary in terms of location, political affiliation, age, education level, socio-economic class, race and gender. As of September 2019, Fox News was the most-watched network for the previous three years, with 1,364,000 daytime viewers. MSNBC came in second with 880,000 daytime viewers, and CNN was third with 624,000 daytime viewers (Watson, 2019). As of February 2019, the majority of CNN's viewers were located on either the east or west coasts, whereas the majority of Fox News' viewers were in the South (Semeraro, 2018). Additionally, according to a Public Opinion Strategies survey from February 2019, 53% of Fox News' audience identified as Republican and 55% identified as conservative, which is a stark contrast to its Democratic audience of 23% and liberal audience of 12%. For MSNBC, the same study indicates that only 17% of audience members are Republican and 22% are conservative, whereas 62% are Democrats and 37% are liberals (Wilson, 2019). As of 2017, 68% of CNN viewers identified as Democrats and 37% identified as Republican ("Morning Consult," 2017).

Since its founding in 1996, Fox News has acquired a substantial Republican audience. Content analysis studies have identified instances of biased reporting on Fox News (Morris, 2007). One study indicated that Fox News allotted more airtime for floor speeches for Republican National Convention than of the Democratic National Convention. Additional research concluded that Democratic nominee John Kerry was portrayed more negatively on Fox News, whereas Republican nominee George Bush was portrayed more positively. Initially, MSNBC did not lean neither left nor right. However, MSNBC tested out a new business tactic by adopting a more liberal, progressive slant in 2006 (Martin & Yurukoglu, 2017). CNN started operating in 1980, making it one of the very first cable networks available. By 1998, CNN became the most widely-available cable news channel.

Media Coverage of Climate Change

Climate change experts tend to view the media portrayal of climate change as inaccurate and

sensationalized. One study indicated that 22 out of 27 members of the Intergovernmental Panel on Climate Change (IPCC) "consider that the way in which the media communicate the arguments around which there is scientific consensus to public opinion is inappropriate" (González Cortés, 2014, p. 43). Members of the IPCC cited the lack of journalists specializing in climate change, a lack of communication between scientists and journalists, irregularity of climate change stories, and over-dramatized stories. According to the group, media misconceptions include, but are not limited to, the idea that implementing renewable resources is expensive and undesirable, the belief that the main reason why the sea level is rising is due to glaciers melting, and the belief that all extreme natural disasters are a result of climate change (González Cortés, 2014).

In 2012, a study indicated that conservative news sources consistently portrayed the idea that there is a lack of scientific evidence that climate change exists. Additionally, the same study found Fox News aired significantly more stories that question the existence of "human-caused climate change" (Hmielowski, et al., 2012, p. 5). In addition, those consuming "non-conservative media" are more likely to be certain that global warming is real (Hmielowski et al., 2012, p. 6).

Theoretical Framework

To explain why and how there are differences in climate change portrayals across Fox News, CNN and MSNBC, this present study draws from several communications theories including framing theory, selective exposure, and agenda setting. The *Handbook of Mass Media and Communication Theory* states that "framing theory focuses on both how the media present news stories and how people make sense of the stories they find in the media." Media "frames," or angles of the story, "define the problems, diagnose the causes, make moral judgments, and suggest remedies through the media's use of certain phrases, pictures, sources, and examples in a certain manner" (Fortner & Fackler, 2018, p. 98).

Framing theory can help shed light on how media coverage effects climate change perceptions. Nisbet suggests that it is the media's responsibility to frame the most important issues in an urgent narrative. Nisbet suggests that conservative-leaning news outlets frame the issue of climate change differently than liberal-leaning news outlets by questioning human influence on climate change and presenting perceived economic consequences of implementing environmental solutions (Nisbet, 2009).

The agenda-setting hypothesis indicates that people gauge the importance of an event based on the amount of emphasis news outlets give it and the amount of news coverage it receives. McCombs and Shaw observed that "most of what people know comes to them 'second' or 'third' hand from the mass media or from other people" (McCombs, Shaw, 1972, p. 176). Information that people derive "second" or "third" hand solely from mass media can be categorized as *unobtrusive* issues, whereas information that people acquire firsthand falls under the category of *obtrusive* issues (Johnson & McCombs, 2013).

Johnson and McCombs argue that agenda setting is more prevalent in the reporting of unobtrusive issues. Because the general public has no experience or prior knowledge of them, unobtrusive issues can be linked to Need For Orientation (NFO), an agenda setting factor that determines the audience's trust in a particular news story. If a public lacks prior knowledge of the story, then it is more likely to believe the media's orientation of the story to be true (Johnson & McCombs, 2013). Because of its intangible nature, the issue of climate change falls under the category of unobtrusive issues. For the most part, climate change does not have a direct, immediate impact on the day-to-day lives of the public. Therefore, the public has a prominent need for orientation, giving the media the power to set the agenda and ultimately influence the public's beliefs on climate change.

This agenda-setting power makes media accuracy extremely important, but in the case of climate change, researchers suggest journalism has come up short. As one example, scientific experts indicated that the media misrepresented the opposition to climate change. They concluded that "the issue is often presented as an opposition between those in favor and those against the theory of climate change, treating it as a counter-balanced position [half/half], but there is a great degree of unanimity and consensus amongst scientists," (González Cortés, 2014, p. 44). Media portrayals suggesting a lack of scientific consensus on climate change signifies a lack of adherence to Killensberg's definition of "journalistic responsibility," which requires journalists to decipher what is going on while recognizing any potential for personal biases that result in "blind spots," or missing information (Killensberg, 2008). In this case, González Cortés argues, an emphasis on climate change controversy is a type of media agenda setting that exaggerates controversy as a way of sensationalizing a story, or "enhancing its news value" (González Cortés, 2014, p. 44).

III. Methods

To determine how climate change was presented on Fox News, CNN and MSNBC, data was collected from stories posted on all three news outlet websites. Stories in the sample had a centralized focus on climate change, climate catastrophes, debates about climate change, claims about climate change, or covered protest movements about climate change. The sample of online content collected from the three networks spanned from July 1 to October 30, 2019. This is an information-rich time period in terms of climate change-related events, including hurricane season, California wildfires, the burning of the Amazon rainforest, the UN General Assembly and Climate Caucus, Greta Thunberg's movement and other climate protests, the Democratic presidential campaign, the Green New Deal, among others.

Stories were found by searching "climate change" on each organization's website and limiting the results to cable news coverage by selecting "Video" under the "Filter" or "Advanced Search" options. Fox News' and MSNBC's websites have a time-filtering feature, which was used to eliminate news stories that were aired before July 1 or after October 31. The study used a sample of 30 broadcast news stories per cable news outlet (90 in total). A stratified sampling method was used to ensure that each of the four months received as equal representation as possible. Initially, this study intended to sample from seven to eight climate change stories per month. However, because the frequency of climate change stories varied considerably from one month to the next and among each of the three networks, the stratified sampling method was altered so that the sample from each month had a proportional number of climate change stories.

This study used both quantitative and qualitative data analysis to identify trends in climate change coverage. Quantitative data was gathered by counting the number of stories about climate change that appeared on each platform for July, August, September, and October. Qualitative data was collected from each sampled video using a coding sheet that recorded the network, date, headline, chyron, anchors/reporters, interviewed sources, theme of the story, view of climate change and any additional notes. After filling out the coding sheets for 90 stories, a constant comparative method was executed. This method of data analysis was used to identify trends or themes in the qualitative research. The process required identifying common events, topics, claims, types of sources and mannerisms of the reporters and anchors.

It is important to recognize that climate change could be alluded to without the term appearing in the stories, so it is possible to miss a story. It is also important to note that the lack of climate change coverage is just as telling because it signifies a lack of acknowledgement of its existence and lack of presentation as an urgent issue. Since it is the responsibility of journalists to sculpt an informed, self-governing population, the lack of coverage indicates that the news outlet does not perceive the issue as necessary information.

IV. Findings

The agenda-setting hypothesis indicates that people gauge the importance of an event based on the amount of emphasis news outlets give it and the amount of news coverage it receives (Johnson & McCombs, 2013). The differentiation among each of the networks in the amount of total climate change coverage, or the number of results yielded from searching "climate change," could be linked to the level of emphasis each outlet places on the subject. For example, Fox News yielded only 91 results when searching for "climate change," while CNN yielded approximately 163 and MSNBC yielded 172. Considering that, as of February 2019, 53% of Fox News' audience identified as Republican, and that less than a quarter of Republicans in 2017 believed climate change to be real, it can be inferred that the lack of climate change coverage could be linked to Republican beliefs about climate change (Wilson, 2019; "Political typology: Environmental attitudes," 2017). Conversely, the reason why MSNBC could be the leader in climate change coverage could be attributed to the fact that 62% of its audience is Democratic and 95% of Democrats in 2017 believed in climate change.

Table 1 displays the total number of videos that appeared per month, across each of the three platforms. Fox News' and MSNBC's websites revealed the number of search results within any allotted time frame, which yielded the exact number of videos with "climate change" in the title or in the description. However, CNN did not reveal the number of search results and did not provide the ability to filter results by time frame. CNN provided the option to sort the results by date, but the results were not displayed in an exact chronological order and stories from several years ago appeared on the first and second results pages. If entered into Google

videos and filtered by CNN.com and the target time frame, the term "climate change," yielded slightly more specified results. Nevertheless, several duplicate stories appeared, and the number of search results was not listed. In the end, this study used manual estimations of the numbers of CNN "climate change" stories per month, calculated by counting the number of Google search result CNN pages that contained relevant climate change stories and subtracting any duplicate stories. Therefore, it is important to note that the CNN result values in Table 1 are estimates, and human error should be taken into account when considering them.

Table 2 shows the sample sizes of videos studied from each network per month. Although not directly proportional, the sample size values per month are intended to loosely mimic the search result values displayed in Table 1. For Fox News' sample from July, an extra story that did not appear in the initial search results was added to the sample. In an attempt to generate more search results, the term, "climate crisis," was searched.

Table 1: "Climate change" video Search Results

	July	August	September	October	Total
Fox News	2	18	66	5	91
CNN	~11	~41	~90	~21	~163
MSNBC	21	44	100	7	172
Total	~34	~103	~256	~33	**~426**

Table 2: Monthly sample size "climate change" Videos

	July	August	September	October	Total
Fox News	3	6	19	2	30
CNN	6	9	8	7	30
MSNBC	6	8	9	7	30
Total	15	23	36	16	**90**

V. Discussion

The qualitative research reveals a range of media frames used in each cable news segment or show that was studied. When combined with the quantitative results, the findings indicate that MSNBC and CNN emphasize the severity of climate change, while Fox News tends to downplay it.

The discrepancies in the number of climate change stories between the three platforms supported the hypothesis that the amount of climate change coverage would be reflective of the climate change beliefs of the majority political affiliation of each network's viewer base. Fox News, the platform with the predominantly Republican viewer base, aired the fewest number of stories pertaining to climate change, which can be attributed to the widely-held belief among Republicans and conservatives that human-caused climate change is not real. Alternatively, the hypothesis was supported in that the network with the most amount of Democratic and liberal viewers, MSNBC, aired the greatest amount of climate change stories.

The qualitative research revealed numerous media frames, or angles, through which climate change was portrayed. CNN and MSNBC produced stories and used b-roll that depicted a visible impact of climate change on the environment. Both CNN and MSNBC had six of their stories demonstrate the visible impact of climate change. CNN stories provided imagery that was directly attributed to climate change, including the rapid melting of ice in Alaska, the warming water temperatures in Greenland and the extreme flooding in Iowa. All of these natural occurrences could be directly attributed to climate change, which was a central focus of the news stories. MSNBC implemented the same technique of using imagery to illustrate the impact of climate change by showing graphs of predicted sea-level rise, melting ice, climate refugees being displaced from their homes, flooding in New Orleans and people mourning of the loss of an iconic glacier in Iceland.

MSNBC not only portrayed the visible toll that climate change has already had on the environment,

but also the visible impact it has had on people. Framing climate change as something that not only affects nature, but also human beings, could be a media framing mechanism that MSNBC uses to inspire people to act. Furthermore, the language in MSNBC's headlines and in the anchors' closing statements frame climate change in a grim manner that suggests there is little hope. CNN used different, yet equally effective tactics to demonstrate the severity of climate change. It was evident that CNN reporters ventured to the sites of the natural disasters with the intent of showing audiences the impact of climate change. CNN even has a designated "Climate Crisis" reporter, Bill Weir, which is a clear indication that the network seeks to validate the existence of climate change and instill a sense of urgency in its audience. Since a significant amount of the influence of climate change perceptions stem from an understanding of science or a lack of science, featuring scientists as sources is a key indicator as to whether or not a network validates or invalidates the existence of climate change.

Additionally, the different types of discourse surrounding climate change across the three platforms are key examples of media framing. For example, Fox News sometimes describes climate change as a "Leftist political agenda," "the religion of the Left," something that should not be prioritized, or something that Democrats are addressing the wrong way. In the sample of climate change stories from Fox News, the political commentators and interviewed sources often attributed Democrats' proposals for urgent climate action to be a scare tactic used for political leverage. Fox News journalists, opinion hosts and sources used for the segment described the Democrats' proposals to solve climate change as "socialist," "immoral" and "fear-mongering." This type of discourse also appears in Fox News' headlines and chryons, such as: "2020 Democrats vow to take aggressive action on climate change," "Alexandria Ocasio-Cortez makes a stark prediction about climate change" and "Gutfeld on Elizabeth Warren's apocalyptic climate change hysteria." The terms "aggressive action," "stark prediction," and "apocalyptic climate change hysteria" suggest that there is a problem with the Democrats' climate change depictions and proposals. Fox News, in particular, used humor in their description of climate change activists or Democrats in support of climate change initiatives.

Alternatively, MSNBC and CNN reporters, anchors, political commentators and sources tend to use grim, urgent discourse to emphasize the severity of climate change. For example, CNN refers to climate change exclusively as the "climate crisis." The term, "climate crisis" appears in seven out of 30 of the sample headlines. Replacing "change" with "crisis" is an example of a media frame intended to convey urgency and severity. CNN reporter Chad Myers ended his story, "What you can actually do to slow the climate crisis," with the statement: "your grandchildren are depending on you." MSNBC anchor Stephanie Ruhle ended her story, "One More Thing: Rising seas could floor major cities by 2050," by saying: "We cannot stop it from happening; we can only slow it down."

Throughout the four-month-long sample of stories about climate change, the "big three" each used humor in its reporting as a framing mechanism. Eleven out of the 30 Fox News stories incorporated humor into the stories, framing climate change activists and Democrats as "ridiculous," "idiotic" and "socialist." Fox News used the most extreme quotes from Democrats, often without providing a complete context, to frame them in a humorous manner. Opinion hosts Tucker Carlson and Greg Gutfeld were the most frequent users of humor as a tactic to belittle and mock Democrats and activists. Carlson used humor in all five of his shows sampled, and Gutfeld used humor in three out of four of his shows in the sample.

Additionally, in the sample of 30 MSNBC stories, two reporters implemented humor as a framing mechanism in two different stories. Chris Hayes and Chris Matthews, both political commentators, used humor to mock Trump's statement about his "environmental leadership." By following Trump's "environmental leadership" speech with a clip of Trump denying climate change on 60 Minutes and the number of environmental regulations that the Trump Administration has rolled back, Chris Matthews positioned Trump as a liar. Using sarcasm, he mocked Trump's sudden realization that the people value the environment. Additionally, following Trump's environmental leadership speech with a clip of trump being dubious about climate change was an intentional way of framing Trump's opinions on climate change as ridiculous.

The sources selected for each story play a pivotal role in framing the story and shaping audience perceptions of climate change. In the Fox News story "Jane Fonda, Sam Waterston arrested for protesting climate change," comedian Michael Loftus called Fonda a "hypocrite" for moving to Washington D.C. to protest climate change, claiming that she was contributing to the carbon footprint by flying in a private jet. Including a comedian as a source for this type of story is a media framing mechanism that subjects Fonda to ridicule and presents climate change as something that is not worth protesting.

Within the sample, CNN had four scientists as guests, MSNBC had three, and Fox News had none. The scientists that appeared on CNN and MSNBC were instrumental in using science to validate climate change's existence and to offer solutions. The majority of Fox News' sources were Republicans, including the RNC Chairwoman, former Florida Congressman Allen West, political commentators, op-ed writers, and editors. When Former Clinton Adviser Richard Goodstein, a Democrat, was a guest on the Tucker Carlson Tonight episode, "2020 Democrats' proposals to curb climate change could cost trillions," he and Carlson ended up yelling at each other about whether or not climate change was worth the expense.

VI. Conclusion

Since more Americans tend to trust cable news sources more than local and network television stations, and since Fox News, MSNBC, and CNN are the most trusted cable news networks, it is clear that the three cable news networks have a share in the responsibility of shaping audience opinions. The media frames surrounding the cable news depictions of climate change could contribute to Americans' perceptions of the issue. As mentioned previously, media frames are intended to "define the problems, diagnose the causes, make moral judgments, and suggest remedies through the media's use of certain phrases, pictures, sources, and examples in a certain manner" (Fortner & Fackler, 2018, p. 98). Analyzing frames of Fox News, MSNBC, and CNN provides insight into why their audiences' believe what they believe to be true about climate change.

As climate change takes center stage of political discussion, and as the need to act becomes ever more imposing, this insight is more important than ever. Despite scientists' unanimous consensus about the existence and severity of climate change, the U.N. Climate Change Reports and the amount of time that has passed since first learning about it, climate change still remains a threat to life on Earth. The quantitative and qualitative results identify an undeniable trend that reflects and perpetuates existing viewer perceptions of climate change, based on their political affiliations.

Acknowledgements

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