

An Analysis of Media Coverage of Global Climate Change

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Anderegg, W., & Goldsmith, G. (2014). Public interest in climate change over the past decade and the effects of the ‘climategate’ media event. *Environment Research Letters*, 9(5), 1-8

The purpose of this article is to analyze public interest in climate change over the course of a decade, as well as studying the effects two “climategate” events portrayed by the media had on public opinion. A database of worldwide web search term volumes were used in the study to find potential patterns in the public’s interest in climate change, particularly highlighting big media events that may have led to climate skepticism. The study found that the public tends to search for the issue of “global warming” instead of “climate change”, and these searches have been decreasing since a peak in 2007. The study also found significant peaks in search terms related to either of the two “climategate” media events, but after a few months these peaks began to decline. The article concluded that the results revealed that high profile media coverage is visible to the public only in the short-term, and that they play a small and unsuccessful role in accelerating the public’s skepticism in climate scientists. This relates to my topic because these findings coincide with a plethora of research that indicates the difficulties of trying to engage the non-expert public in “slow moving issues.” This article could help me articulate one of the problems with covering climate change – since the effects of climate change (at the time of this study) seemed so far down the road, it was and is difficult to communicate with the public about it, especially to those who lack the most in environmental science education.

Antilla, L. (2005). Climate of skepticism: US newspaper coverage of the science of climate change. *Global Environmental Change*, 15(4), 338-352. doi:10.1016/j.gloenvcha.2005.08.003

The purpose of this article is of a two-part study, whose purpose is to examine one year of climate science coverage by American newspapers. This was achieved through a combination of a quantitative review of one year of American climate science newspaper coverage and a qualitative comparative analysis of themes and frames created by the media with a social constructivist approach. The article provides special highlights of articles that displayed theme and frame through emphasizing doubt using rhetoric, controversy, and climate skepticism. This article concluded that their study added to an already existing discussion that media-created impediments were preventing the growth of the publics' and policy-maker's understanding of climate change. In regards to my research topic, this article would contribute to discussion my topic because of its analysis climate change media coverage in 2004 highlights a problem of climate change coverage at the time. It would be interesting to see if there are more articles like this that are much more recent because I would be able to analyze how different media coverage of climate change in 2004 was compared to today, and if the same techniques used in 2004 have survived in today's coverage of climate change.

Azfar, M. A., Zhou, R., Sajjad, A., & Asmi, F. (2019). Climate change communication as political agenda and voters' behavior. *Environmental Science and Pollution Research International*, 26(29), 29946-29961.

The purpose of this article is to understand and discuss climate change communication as a political agenda and how that impacts the behavior of voters. The first part of this study is used to compare different climate change communication characteristics present in Pakistan's mainstream political parties' positions on climate change. The

second part of the study examines the different opinions voters held on the political parties' climate change positions. The findings of the study emphasized that climate change was easy to communicate to the general public and that climate change communication is significantly impacted by the different political parties' framing and communicating of the issue. The article concludes that the attitudes people have toward pro-environmental practices and behaviors are high, and in order to produce practical change, climate change communicators should use a "social value" framing strategy of the climate crisis. This article connects to my research topic because it demonstrates the effects of different types of climate change communication framing in a developing country, while most of the sources I have found tend to focus on climate change communication in developed countries. This article would help me articulate another way in which different countries communicate the climate crisis to their citizens and what those countries could learn from each other in communicating climate change.

Barkemeyer, R., Figge, F., Hoepner, A., Holt, D., Kraak, J. M., & Yu, P.-S. (2017). Media coverage of climate change: An international comparison. *Environment and Planning C: Politics and Space*, 35(6), 1029–1054. <https://doi.org/10.1177/0263774X16680818>

The purpose of this article was to discuss why certain countries have given climate change significantly more media coverage than other countries. The study uses multiple streams theory and institutional theory to present an international comparison of climate change coverage by newspapers, using 113 top national newspapers from 41 different countries in 2008. It was found that higher quality in environmentally-based regulations held a significantly positive relationship with higher amounts of media coverage on climate change issues. However, it did not find that gross domestic product

per capita explained levels of climate change media coverage in a country. The article concluded that the results demonstrated there are multiple contextual factors that significantly impact the levels of a country's media coverage of climate change. This article relates to my topic because it attempts to answer why certain countries covering climate change the way they do and at the rates that they do. This article would help me articulate that there is more to take into consideration when discussing a country's climate change coverage than just their economics or how developed of a country they are.

Boykoff, M. T. & Boykoff, J. M. (2004) Climate change and journalistic norms: a case-study of US mass-media coverage. *Geoforum* (2007) doi:10.1016/j.geoforum.2007.01.008

The purpose of this paper was display findings that potentially explain mass-media coverage of climate change in the United States. The researchers conducted a content analysis in which they focused on three network evening newscasts and four major US newspaper that released climate change and global warming articles between 1988 and 2004. Articles were found using databases, from which the researchers chose every 6th article for their sample size from the newspaper category and the every other article for the television segment category. They also coded all of the stories in their sample based on how much they demonstrated the five journalistic norms: novelty, personalization, dramatization, balance, and authority-order bias. They found that in the years 1990, 1992, 1997, 2001-2002, and 2004, the United States newspaper and television coverage of climate change had substantial peaks, which they were able to attribute to the intertwining of climate science and politics during these respective years. This source is helpful in my analysis because it portrays a trend of when climate change is

highlighted in the media. It would be interesting to see how much this trend has continued, especially with climate change-based proposals like The Green New Deal and CNN's town hall on climate change seemingly at the forefront of the 24/7 news cycle.

Boykoff, M. T. & Roberts, J. T. (2007) Media coverage of climate change: current trends, strengths, weaknesses.

The purpose of this paper was to highlight the current state of climate change coverage across the globe and examine the strengths, the weakness, and how current coverage has contributed to climate action and policy at an international level. The researchers explored climate change media coverage across countries such as the United States, Canada, France, Germany, Jamaica, Honduras, New Zealand, and many more, examined forty English-language newspapers across seventeen countries, and surveyed journalists some many of these countries as well. Studying international media coverage of climate change is to help reach somewhat of an understanding about how the media is covering this issue and if their current coverage techniques are effective in pushing for change. This study concluded that the media has been able successfully portray climate change as an important issue to the masses sometimes, but have stopped short of pushing for change to combat climate change. Climate change is an international challenge to life on this planet that require change at a drastic, revolutionary level, while the media coverage of this challenge is has been stationary at a mild-reformist level for some time. This article is helpful to this study because it provides an analysis of climate change media coverage from multiple countries, and as

the researchers initially set out to do, it reaches a consensus about the trends, strengths and weaknesses of climate change media across the globe.

Brewer, P., & Mcknight, J. (2015). Climate as Comedy: The Effects of Satirical Television News on Climate Change Perceptions. *Science Communication*, 37(5), 635-657.

The purpose of this article was to consider whether satirical coverage of climate change influenced viewer's perceptions of global warming, as well as to consider whether viewers' political views were indicators of how they interpreted the programs' messaging on climate change stories. The two satirical programs used in this study were *The Daily Show* and *The Colbert Report*. The findings demonstrated that viewers' exposure to these satirical programs' coverage of climate change were able to shape their perceptions of climate change, and participants that watched clips from one of the two programs expressed with much more assurance that climate change was happening. In conclusion, this article adds to a fair pool of studies that demonstrate satirical programing as an effective tool in educating the public about domestic and/or international issues. This article is related to my research topic because it focuses on the success of a particular type of media, satirical programing, its effectiveness in educating people about climate change, and what makes it effective in doing so. This would help me articulate the differences between satirical programming and traditional news coverage of climate change, and help me and others understand why traditional television news is not as successful in educating people about climate change as satirical programing.

Brossard, D., Shanahan, J., & McComas, K. (2004) Are issue-cycles culturally constructed? A comparison of French and American coverage of global climate change. *Mass Communication and Society*, 7(3), 359-377, doi: 10.1207/s15327825mcs0703_6

The purpose of this article was to present a comparison of climate change coverage between French and American newspapers during the time period of 1987 to 1997. The researchers focused on one national newspaper from each country: the New York Times for the United States and Le Monde for France. They found that the French coverage of global climate change was much more event-based and concentrated more on international relations. On the other hand, American media coverage of global change heavily highlighted conflicts between politicians and scientist. The researchers concluded that research about media coverage of environmental issues need to reach an international level, like the climate crisis has done, and comparisons like the ones drawn in this article help us understand different obstacles media coverage in other countries might face. This article would be helpful in demonstrating the characteristics of American and French media coverage of climate change between 1987 and 1997, and it gives me important information about the history of climate change media coverage in these two countries. This would allow me to compare and contrast more recent patterns in climate change media coverage in both of these countries with these past patterns of coverage.

Carmichael, J. T., & Brulle, R. J. (2017). Elite cues, media coverage, and public concern: an integrated path analysis of public opinion on climate change, 2001–2013. *Environmental Politics*, 26(2), 232–252. <https://doi.org/10.1080/09644016.2016.1263433>

The purpose of this study is to examine the many factors that play a part in affecting US public concern about climate change between 2002 and 2013. These factors included extreme weather events, public access to accurate scientific information, media coverage, elite cues, and movement/countermovement advocacy. Responses to seventy-four separate surveys were used to measure, record, and interpret quarterly public concerns of climate change. The researchers found that of these five factors, the political mobilization of climate change concerns by elites and advocacy groups have played the largest roles in influencing the concern of the public. Information-based science advocacy had minor effects to public concern, while informing the public of the science behind climate change had no effect. And though media coverage historically has been influential across many topics of discussion, the researchers pointed out that media coverage usually follows elite and economic cues. In a research paper, this article could support a possible counter argument, that media coverage of climate change is not efficient in producing substantial change because it is money and elites/celebrities who are influencing the media. This could even lead to a conversation of the economics of climate change media coverage and climate change politics.

Jang, S. M., & Hart, P. S. (2015) Polarized frames on “climate change” and “global warming” across countries and states: Evidence from Twitter big data. *Global Environmental Change*, 32(2015), 11-17

The purpose of this article was to examine a sea of climate change conversations on Twitter between 2013 and 2015 to demonstrate the difference in the polarization between the framings of “climate change” and “global warming”. The study found that framings that called into question the reality of climate change were successful in more

conservative states in the United States than in more liberal states, as well as the United Kingdom, Australia, and Canada. The findings also displayed that more conservative states preferred the term “global warming” to “climate change” when compared to more liberal states and accompanied “global warming” with hoax frames. The article concluded that framing is important when it comes to increasing the public’s understanding of climate issues, but the challenges of this methodology did lead to a lack of empirical research on framing in interpersonal relationships like social media conversations. This relates to my topic because social media is a type of media coverage. It could help me articulate that where people are getting their news, and how those news channels are shaping the climate crisis, are able to impact how they go about framing the crisis on other platforms.

Keinonen, T., Palmberg, I., Kukkonen, J., Yli-Panula, E., Persson, C., & Vilkonis, R. (2016). Higher education students' perceptions of environmental issues and media coverage. *Discourse and Communication for Sustainable Education*, 7(1), 5-22. doi:<http://dx.doi.org/10.1515/dcse-2016-0001>

The purpose of this article is to study the perceptions higher education students possess about the seriousness of environmental issues and the relation between those perceptions and their perceptions of media coverage. The study found that the students involved in their study saw the lack of clean water as the most serious environmental issue. In addition, when students perceived an issue as serious they believed the media coverage of the issue as sufficient and appropriate. However, they did find that the student perceived media coverage of issues like biological diversity and global warming as obscured and undervaluing. In conclusion, higher education students

agreed that environmental problems are urgent and in need of solving through the cooperation of governments internationally, but the students also identified these issues as being solvable on an individual-responsibility basis where everyone does their part. These conclusions are linked to the important role the media plays in framing their coverage of environmental issues. This article relates to my topic because it directly discusses the importance of framing, without actually having to use the word framing. The findings could help me further articulate that the media's coverage of climate change is quite effect, but this study would only allow me to apply that statement only to higher education students. A replication of this study would need to be done multiple times using higher education graduates, incoming college students, and people who have never been to college to test of that statement applies to non-higher education students.

Lambert, J. L., & Bleicher, R. E. (2014). Improving climate change communication starting with environmental educators. *Journal of Geoscience Education*, 62(3), 388-401. Retrieved from <http://proxy-iup.klnpa.org/login?url=https://search-proquest-com.proxy-iup.klnpa.org/docview/1564036992?accountid=11652>

The purpose of this article was to examine how educating students on climate change effected their understanding of it. Before and after taking a graduate-level climate change course, master's program students were observed on their ability to communicate their knowledge and perspectives of climate change. The study found that taking the course on climate change had significantly increased the students' knowledge on the topic. This article relates to my topic because it provides an example of what seems to be effective in educating people about global climate change, which

is what the media coverage of climate change should be doing, at least in my opinion. This article would help me articulate a possible outline (toward the end of the research paper) that media outlets could use when covering climate change so that people are more informed about how important of a crisis this is, with room for adaptations to fit different platforms and restrictions of media outlets.

McCann, M., (2010). A framing study of media coverage on climate change from 1989 to 2009. *Master's Theses*. 3817. doi: <https://doi.org/10.31979/etd.6g68-22cd>

The purpose of this article was to examine the framing of climate change stories over the course of twenty and in four major news magazines: *Maclean's*, *Newsweek*, *The Economist*, and *U.S. News and World Report*. The elements of framing that were observed were primary frames, the depth of coverage, framing the science, sources of information, section placement, and verbiage. The study was a content analysis of 476 articles, each of which were found in one news magazine during the years 1989, 1993, 1997, 2001, 2005, or 2009. It was found that the political-economic framing was the predominantly primary frame used with these stories covered climate change. The articles highlighted political aspects of climate change such as potential climate change-based regulations and efforts by the government to reduce and/or combat emissions of harmful substances. The study concluded that climate change has continued to be framed by news magazines as more of a political issue than is a social issue. This relates to my research topic because it details that major newspapers have a history of framing their coverage of climate change more on the political side. This article could help me explain a possible reason for why, during this time period, people were not as concerned with climate change as they are today. According to the Azfa

text above, people react to stories that are framed from a perspective of social values, and though these newspaper have done that, they have framed climate change from the perspectives of politics.

Nerlich, B., Koteyko, N., & Brown, B (2009) Theory and language of climate change communication. *WIREs Climate Change*, 1(1), 97-110 <https://doi.org/10.1002/wcc.2>

The purpose of this article was to discuss the difficult importance that comes along when communicating the topic of climate change to the publics, which often results from the requirement of using various types of communication strategies, tools, and platforms. It also discusses the difficult relationship between climate change communication and behavior change, highlighting the role language plays in expressing climate change problems to the public. To do these things, researchers pulled from previous studies to analyze and discuss characteristics that provided insight in to different theories and the language used in climate change communication. The article finds that many of the studies the researchers reviewed placed importance on four things when it came to communication climate change issues - engaging the public emotionally, communicating goals carefully, engaging people in some form of dialogue, and understanding different audiences. In the end, the article makes a final plea to climate change communicators to apply those same four attributes that they discovered in their review. This article relates to my topic because it outlines four characteristics of communication that seemed to work across different audiences, and this article will help me articulate why news outlets should commit to all four of these attributes when communicating about climate change.

Pearce, W., Brown, B., Nerlich, B., & Koteyko, N. (2015). Communicating climate change: conduits, content, and consensus. *WIREs Clim Change*, 6, 613–626. doi: 10.1002/wcc.366

The purpose of this article was to explore and examine the conduits, content and consensus of climate change communications beginning in 2009. The article examines the practice of climate change communication alongside new media developments (like social media) within media developments since 2009. It also highlights affirmed tensions between focus on the communicators' part to inform the masses and an increase in strategic dialogue with the public. The study found that many of the studies reviewed were based in "visions of effective climate change communication", which puts emphasis on maxims like emotionally engaging with people, being aware of one's audience, and clearly defining the goals of communication. The article concluded that there was friction between traditional ways to educate the public and the spark in interest in having more of a dialogue type conversation about climate change issues. This relates to my topic because it highlights conflict within the climate change communication sector of society about how to best communicate the issues of climate change with the public. It will also help me put emphasis on three of the four maxims mentioned in the Theory and Language of Climate Change Communication, and why at least three of them should be kept in mind when media outlets communicate with the public about climate change.

Sakellari, M. (2019). Climate change and migration in the UK news media: How the story is told.

International Communication Gazette. <https://doi.org/10.1177/1748048519883518>

The purpose of this article was to examine the textual and visual representations of migration due to climate change. The article articulates the ways images and text

cooperate in an effort to create and present rambling and vague stories to the public. It was found that the political character, the context, and the complexities of climate induced migration were removed when people saw a visual of a climate refugee. The article concludes and infers that this could work to the advantage of xenophobic agendas and make it more difficult for these refugees to integrate into host communities. This article relates to my article because it demonstrates a possible example of the negative effects of how the United Kingdom frames the climate change based migration, and this article will assist me in articulating that.

Schäfer, M. S., Ivanova, A., & Schmidt, A. (2014). What drives media attention for climate change? Explaining issue attention in Australian, German and Indian print media from 1996 to 2010. *International Communication Gazette*, 76(2), 152-176. <https://doi.org/10.1177/1748048513504169>

The purpose of this article was to determine what drives media attention for climate change in the countries of Australia, Germany, and India. From the time period between 1996 and 2010, the researchers calculated the monthly climate change-associated stories. For each country, two leading national newspaper were examined in relation to all the stories published in each newspaper over the 14 year period. It was found that aspects of climate change like weather and other climate characteristics did not act as significant enough drivers for attention to climate change in two of the three countries. Also, public happenings like climate summits and international non-governmental organizations' agenda building efforts had much stronger impacts on driving the media's attention for climate change. The article in concluded by restating their findings: public events are a higher driver in the media's attention for climate change

than climate characteristic. This relates to my topic because, in regards to these three countries, it articulates that in the end the media is looking for ratings, which is a point that I would want to articulate. The media goes after big stories like summits because they believe it sounds more important than the weather, which, if you watch the news, you will hear about all the time.

Trumbo, C. (1996). Constructing climate change: claims and frames in US news coverage of an environmental issue. *Public Understanding of Science*, 5(3), 269-283.

<https://doi.org/10.1088/0963-6625/5/3/006>

The purpose of this article was to analyze American news coverage claims and frames of environmental issues over a decade. This content analysis of ten years of climate change coverage in America sampled five national newspapers. The analysis of this study was based on the view that news discourse content can be realized in terms of claims-making and framing. The analysis also discussed climate change in terms of Down's issue-attention cycles, which is a five-step model that details the public's gain and loss of attention in important issues. The study found that scientists were more likely to be associated with the frames that placed emphasis on problems and causes of those problem, and politicians were more likely to be associated with frames that placed emphasis on judgments and remedies. The article reached a conclusion that the best way to relate Down's model to the observed changes in climate change coverage is to make the case that coverage of these five newspapers over the tens years is only the first three steps Down's model – pre-problem, alarmed discovery, and realizing the cost. This article's affirmation of the Down's model and how it relates to climate change coverage, will help me articulate where in Down's model we currently are now.

The study analyzed media coverage between 1985 and 1995, and between that time and around 2014 media coverage and public concern of climate change from my perspective had dropped off, which would have been step four in the Down's model – the gradual decline of interest. This along with yearly coverage of record high summers would help me affirm that we are in the final stage of this model in its relation to climate change coverage, a twilight realm of lesser attention or spasmodic recurrence of interest.

Zhang, X., & Hellmueller, L. (2016). Transnational media coverage of the ISIS threat: a global perspective. *International Journal Of Communication*, 10(20). Retrieved from <https://ijoc.org/index.php/ijoc/article/view/4468>

The purpose of this study was to display similarities and differences in global online news stories by Al Jazeera and CNN concerning the ISIS threat. A quantitative content analysis was conducted to study news sources, frames, and geographical context of the online coverage of the ISIS threat by these two news outlets. The results of the study suggested that though many transnational news outlets many have similar features in their coverage of global crises, their differences are significant. The study found that CNN cites more official, governmental sources and adopts a framing of coverage that focuses on strategies for dealing with ISIS. Al Jazeera was found to rely more on information from other news outlets and framed ISIS as an existential threat. It concluded that domestic factors played significant roles in covering the political positions of an issue, but global perspectives are usually adopted one human suffering is the focus of the news. The findings in this article can help me display possible differences between how countries cover climate change and how they cover terrorism.

I would have to do more research on how different news media outlets cover terrorism. Both climate change and terrorism are global crises, but I believe that there might be something to be said about covering these two distinct crises, especially about how audiences might react to media coverage of these crises.

Zikargae, M. H., (2018) Analysis of environmental communication and its implication for sustainable development in Ethiopia. *Science of the Total Environment*, 634, 1593-1600. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0048969718312075>

The purpose of this article was to examine the environmental communication practices and abilities of the Amhara National Regional State-Environmental Protection Authority in Ethiopia. A qualitative research method was designed to collect data through documentation and in-depth interviews. The study found that Amhara State-Environmental Protection Authority was unable to communicate global climate change and domestic environmental issues, which referred to many conventions and in different policies. The study concluded that there were gaps and challenges integrated in the state's ability to communicate environmental issues. These gaps and challenges included weak public dialogue, lack of genuine participation being considered, poor information systems tasked with environmental issues, and a lack of awareness due to communication. The article relates to my topic because it analyses the struggles a developing country like Ethiopia has in communicating the crisis of global climate change. This can help me articulate the differences between developed and developing countries' abilities to communicate environmental issues, which could potentially add to a broader discussion as to why developing countries will be impacted the most or first by climate change.