

Terrorism versus climate change in the news, all things equal (1368 words)

By Aaron M. Hoffman, Dwaine Jengelley, Erin Hennes and Yanzi Huang

Treating terrorism as a more serious threat to national security than climate change is a form of climate denial that even Democrats practice. Since the 9/11 attacks, every US president, Barack Obama included, has spent more on terrorism prevention than on climate change mitigation even though anthropogenic climate change has killed more than 14 times more Americans per day than terrorists have {(Miller, 2015; Vicedo-Cabrera, 2021 #2148)}.

The US public supports prioritizing terrorism over climate change. Between 2010 and 2016, Americans identified terrorism as one of the most important issues facing the US twice as often as they identified climate change. On average, Americans are also more concerned about personally being harmed by terrorists (Mueller, 2018 #2153) than by climate change ({Ballew, 2019 #2152}).

Explanations of these misaligned risk assessments often focus on reporting by the news media ({Mueller, 2006 #990}). Terrorism news relies on highly negative language to convey the sense of threat {(Altheide, 2017 #2069)}. In contrast, the language of climate change reporting is filled with

cautious statements by scientists (Boykoff, 2008 #) and obscurantism by climate denialists (Boykoff, 2004 #2130).

Unfortunately, something important eludes media focused theories: Whether journalists cover terrorism and climate change differently, all things equal? Alleged differences in the reporting on terrorism and climate change might be illusory, caused by idiosyncratic differences between terrorist attacks and climatic events that leave the impression that the two areas are distinct. As David Ryfe notes, however, modern research shows the, “homogeneity of modern news in grinding detail” (2006, #2154). Reporters might report on terrorism and climate change the same way once these differences are held constant.

Methods and materials

The observational research techniques commonly used in media research cannot truly equalize climate change and terrorism news. Experiments can. Accordingly, we developed two experiments, one exploratory, one registered, involving professional journalists to examine whether reporters cover identical climate change and terrorism threats differently. Building on Gilbert (), we hypothesize that reporters will write about identical threats more negatively if terrorism is identified as the source of the threat rather than climate change.

In the interests of space, we present the registered experiment only (for details, see <https://osf.io/nam2q>). We invited journalists to participate in a one factor study that asked them to write lead sentences about a hypothetical FEMA report detailing threats to 20% of the water supplies in the US states they worked in. The report estimated that harm to these water supplies could rival events such as the Laurel Run dam failure in Johnstown, Pennsylvania that killed 40 people and caused 5.3 million dollars of damage.

Random assignment determined whether the report identified either climate change or terrorism as the source of the danger. We examined whether reporters would use fewer negative words relative to positive ones when climate change was identified as threatening US water supplies rather than terrorism. The more negative words outnumber positive words, the more negative the report.

News audiences gauge the severity of threats using the negativity of language as a guide (Albertson, 2015 # 1833). We assessed the negativity of the language reporters used in their lead sentences using Lexicoder, an automated dictionary designed for political news, that identifies negative and positive words in texts (Young, 2012 #1371). Negative leads contain more negative words than positive ones, as a share of total words; positive leads privilege positive words over negative ones. This variable ranges from -100 (completely negative) to 100 (completely positive) (see Soroka, 2012 #2112} for details).

Participants were recruited from local and national newspapers across the US. We contacted journalists at random from employee lists for the largest circulating and one or more randomly selected newspapers per state and offered \$5 gift cards to volunteers.

In all, 122 journalists, representing 30 states and Washington, DC, accepted our invitations to participate and completed our study. We stopped recruiting participants once we got 122 completed responses, after a “planned peek” at our data revealed significant results.

We scheduled this peek based on an a priori power analysis that assumed 80% power and a medium effect size ($d=0.38$). We determined the effect size using data from a pilot study conducted between [dates] and the lower bound of the 95% Confidence Interval of the mean difference negativity score ($M_{\text{Climate Change}} = -4.65$, $SD_{\text{Climate Change}} = 4.68$; $M_{\text{Terrorism}} = -10.69$, $SD_{\text{Terrorism}} = 4.94$; 95% $CI_{\text{Mean Difference}} = [1.81, 10.27]$) and the pooled variance ($s^2_p = 23.35$).

Women outnumbered men in this research, 69 to 44 (seven people who failed to meet our inclusion criteria were excluded from our analysis). Only three Republicans participated, as compared to 51 Democrats, 49 Independents, and eight people who listed either other political affiliations or none at all.

Results

An independent-sample T-test was used to examine differences in the negativity of the lead sentences by experimental condition. Journalists in the terrorism condition reported the threat to the U.S. water supplies using a more negative tone than those in the climate change condition, $t(111) = -4.50$, $p < .001$, $d = 0.84$, 95% CI: [-7.14, -2.77]. The difference between the two conditions is large: journalists in the terrorism condition ($M = -11.92$, $SD = 5.47$) wrote sentences that were 1.7 times more negative than journalists who were assigned to the climate change condition ($M = -6.96$, $SD = 6.24$).

Reporters who self-identified as Democrats were as susceptible to writing more negatively about terrorism than climate change as reporters who self-identified as either Independents or Republicans. We found no relationship between the negativity of the language reporters used and their party identification either by itself ($\beta = -0.17$, $p > .1$) or interacted with the experimental manipulation ($\beta = 0.13$, $p > .1$).

The negativity bias in favor of terrorism is consistent across other subgroups of journalists as well. A linear regression we conducted suggests that inclination to report more negatively about terrorism than climate change ($\beta = 0.41$, $t(105) = 4.43$, $p < .001$) is unaffected by gender ($\beta = 0.03$, $t(105) = 0.32$, $p > .1$), party affiliation ($\beta = 0.04$, $t(105) = 0.39$, $p > .1$), or years of experience working as a reporter ($\beta = -0.11$, $t(105) = -1.21$, $p > .1$).

The level of concern journalists expressed about terrorism and climate change also did not influence how they wrote about these threats. Exploratory analyses we conducted (see Hayes, 2012) show that neither journalists' concerns about climate change, nor their concerns about terrorism moderated their writing about terrorism and climate change.

Discussion

The inclination to write more negatively about terrorism than climate change echoes a similar result we got in the exploratory study we conducted with journalists who attended the Society for Professional Journalists conference in XXXX. In that study, journalists who were assigned to the terrorism treatment also wrote more negative headlines and lead sentences than journalists who were in the climate change condition.

The result suggests two things about the reporting of terrorism versus climate change. First, differences in the tone of terrorism coverage relative to climate change coverage are not simply a function of the peculiarities of terrorism and climate change events. The tone of terrorism coverage is more negative than the tone of climate change even when the characteristics of terrorism and climate change events are held constant.

Second, the inclination to write about terrorism more negatively than climate change runs deep. Journalists may signal that terrorism is a more serious threat than climate change through their word choices even if

journalistic practices that widen the gap between terrorism and climate news are eliminated.

The word terrorism is a powerful trigger of negative reporting. The phrase climate change is not nearly as evocative. This might reflect evolutionary responses to terroristic threats. It might reflect the depth of the mythology surrounding terrorism. Either way, getting reporters to cover climate change in a way that accurately conveys the danger people face is not simply about getting Republican reporters to believe scientists. Democratic reporters have to be convinced to write differently as well.