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Death Across the News Spectrum: A Time Series Analysis of Partisan Coverage Following Mass Shootings in the United States Between 2012 and 2014

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Mass shootings spur intense coverage across the ideological news media spectrum. A comparative analysis of news attention to verified features of events across partisan news outlets provides opportunities to understand the news values driving coverage in each of these venues. To examine these relationships, we conducted time-series analyses using a unique data set of 59 mass shooting events coded for characteristics of victims, shooters, and context, contrasted with coverage in six major news outlets during 2012–2014. We found that, although certain factors drive news coverage of gun violence, gun rights, and gun control across the ideological spectrum, differential patterns emerge based on contextual particularities. Across all news media, a higher number of non-Black victims drove up coverage. For moderate and conservative news media, a higher number of Black

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victims predicted reduced coverage. Child deaths drove up coverage of gun rights in moderate news outlets. No feature predicted gun rights discussions in conservative news outlets, suggesting that their focus on gun rights was driven by other factors.

Keywords: news values, mass shootings, partisan media, news media ecology, time series

Gun-related deaths in the United States reached a peak in 2018—the deadliest year in the last five decades, both by the number of shooting incidents and by the number of total victims (Gun Violence Archive, 2019; Howard, 2018). According to a 2017 report, the United States had the highest ratio of civilian-owned guns to population, with 120.5 guns per 100 residents (Karp, 2018). For gun-related homicides, the United States ranks second globally, with a total of more than 37,000 deaths in 2016 (Naghavi et al., 2018). Mass shootings are a unique case within gun-related homicides, as the magnitude of these events amplifies their newsworthiness and prompts a common set of news-framing devices that influence the manner in which they are packaged and presented to the audience (Dahmen, Abdenour, McIntyre, & Noga-Styron, 2018; Harris, 2018). Although the United States makes up less than 5% of the global population, it experiences 31% of all mass shootings (Lankford, 2016). Over the last two decades, the United States has experienced a substantial number of high-casualty mass shootings (Naghavi et al., 2018). In fact, eight of the mass shootings with the highest casualty numbers occurred during the last decade (CNN, 2019). Not only has the average number of casualties per incident increased, but mass shootings have also become more prevalent. The number of mass shootings has risen since the 1970s, trending from 1.1 per year to 4.1 per year in 2010 (Krouse & Richardson, 2015). Consistent with this, the average number of days between any given mass shooting event has shrunk from 282 to 74 (Krouse & Richardson, 2015).

The rise in gun-related homicides and mass shootings has stirred interest from political communication and journalism scholars studying patterns of news coverage and their political consequences. Schildkraut, Elsass, and Meredith (2018) found disparities in mass shooting news coverage: There were more articles, and a higher word count per article, when the number of victims was higher, when the offender was of minority descent, or when the shooting took place on school grounds. Their findings suggest that not all deaths receive the same news attention. Here, we examine variation in attention across the news media system through the lenses of news values and partisan coverage.

It is well established that gun-related homicides receive significant news coverage (Paulsen, 2003; Sorenson, Manz, & Berk, 1998), and that homicides with more victims generate both additional coverage on news media (Silva & Capellan, 2019) and stronger reactions on social media (Zhang et al., 2019). It is therefore unsurprising that studies focus largely on the number of victims as the main predictor of coverage (Duwe, 2000, 2017). Although multiple-casualty events are already newsworthy, additional event characteristics can influence coverage and editorial decisions, including the age and race of the victims and shooter. Outside of school shootings, few studies have examined whether different factors shape how much news coverage a mass shooting event receives or the focus of that coverage (e.g., Muschert & Carr, 2006). The study by McCluskey (2016) is a notable exception, examining the news framing of 11 school shootings in the United States and considering multiple factors that influence coverage patterns, such as political ideology of the audience, variations in medium, and source tone. The present study complements and complicates research regarding

news coverage of mass shootings in several ways: First, it considers a range of mass shootings events, not just school shootings; second, it highlights multiple factors, including the number of child fatalities, the race of victims and shooter, and the nature of the relationship between shooters and victims.

This work also differs from prior research in terms of its analytic approach. A number of prior pieces have relied on case studies of individual mass shootings (e.g., Holody & Daniel, 2017; Schildkraut & Muschert, 2014). Some have addressed long-term trends, such as McCluskey (2016), who analyzed the news framing of school shootings between 1996 and 2012, and Silva and Capellan (2019), who examined changes in the coverage of mass shootings over a 50-year period, building their corpus of articles from a single source, *The New York Times*. Nonetheless, these studies have not applied formal time-series modeling approaches to examine these dynamics and the event features that drive them. The present study adds to the literature by analyzing news articles published daily between 2012 and 2014 from six news outlets spanning the ideological spectrum, engaging in a comparative assessment of coverage dynamics. Specifically, we identify patterns of recurring terminology that reflect news media attention to gun violence, gun control, and gun rights, with particular attention to the relationship between an outlet's ideological leaning and its mass shooting news coverage. Relationships are examined using Prais–Winsten estimations of event characteristics on news coverage over the three-year period. This analysis adds to the existing literature on news patterns, political values, and factors contributing to newsworthiness of mass shootings across news media.

Newsworthiness of Mass Shootings

A variety of factors influence both the likelihood that an event is covered in the news and the way it is presented. These factors may relate to the event itself or derive from internal forces within news organizations, such as the expectations and desires of their market audience (Galtung & Ruge, 1965; Harcup & O'Neill, 2001). Around half a century ago, Galtung and Ruge (1965) constructed a list of criteria, or news "factors," that functioned as heuristic cues for determining the newsworthiness of events and guided the selection processes in news production. Events containing more news factors were considered more newsworthy. Harcup and O'Neill (2001) revisited these factors and proposed an updated list of news values, adding aspects such as entertainment, celebrity news, newspaper agenda, elite influence, and interest in good news. In 2017, they reexamined the values to account for developments in communication technologies that influenced news consumption practices. The rise of digital outlets and the sharing of stories on social media platforms have altered the media landscape, contributing to the importance of audiovisuals in determining newsworthiness and the growing influence of "shareability" on story selection (Harcup & O'Neill, 2017, p. 1476).

Mass shootings satisfy a handful of news value criteria (Galtung & Ruge, 1965; Harcup & O'Neill, 2001), including negativity, unexpectedness (sometimes known as "deviance"; see Pritchard & Hughes, 1997, p. 49), proximity, relevance or meaningfulness, personalization, frequency, timeliness, and superlativeness. Collectively, these values, along with the magnitude of the event, explain why mass shootings receive a disproportionate amount of news coverage despite constituting fewer than 1% of all U.S. homicides. Mass shootings are extremely negative, with high-impact value because of their magnitude, particularly if the fatality count is high. Demonstrating the aphorism "if it bleeds, it leads," scholars have found that news organizations produce more articles about homicides with multiple victims (e.g., Gruenewald, Pizarro, & Chermak, 2009).

A concept relevant to unexpectedness is victim purity. The perceived innocence of a victim in a homicide can shape the news coverage of that event. For example, the death of children is often considered highly newsworthy because children are heuristically identified as guiltless and undeserving of mass violence (Gekoski, Gray, & Adler, 2012; Pritchard & Hughes, 1997). This goes both ways: Whereas victims from "special populations" (Goetting, 1995) are considered worthy of disproportionate coverage, other groups living more precarious lives are often not considered newsworthy in death (Liebler, 2004; Neely, 2015), suggesting that journalists make normative judgments about which victims are more newsworthy. The significance of victim purity is well documented in studies of homicide news coverage (e.g., Eliason-Nannini & Sommerlad-Rodgers, 2012; Gekoski et al., 2012), but less work has focused specifically on mass shootings. Likewise, shootings that occur on school grounds are newsworthy because of the concentration of children and the perception of schools as safe zones.

Mass shootings are also considered uniquely newsworthy because they are often unforeseeable, highlighting the news values of unexpectedness and relevance. Although most mass shootings would be considered unexpected, several factors can enhance the perception of unpredictability, deeming an incident more newsworthy. A key feature of news coverage is offering explanations for the events. Regarding mass shootings, the explanation could be antecedents to the violent act, such as prior conflict between the shooter and victims, or dispositional factors that may have led to the shooter's behavior (Muschert & Janssen, 2012). This is because "logical" motives for the shooting can help explain the event. A lack of potential explanations for the shooting may enhance the perceived unexpectedness of the event, as it raises the possibility that anyone may fall victim to a similar random act of violence. This may explain and drive the public's fascination with violence between strangers (Marczak, O'Rourke, Shepard, & Leach-Kemon, 2016). Similarly, mass shootings that occur in public places tend to draw more news attention, even though most mass shootings occur in private homes (Duwe, 2017). Data indicate that prior familiarity between the shooter and victims tends to correlate with the location of the shooting being private as opposed to public (Zeoli & Paruk, 2020). We expected that public mass shootings, in which victims are not familiar with the shooter, would draw more news attention compared with private mass shootings in which there is prior familiarity. Based on the literature about news values and coverage of shootings, we proposed the following hypotheses to identify features that potentially drive news media attention to gun violence:

H1: A higher number of victims will increase news attention to gun violence.

H2: A higher number of children killed will increase news attention to gun violence.

H3: School shootings will increase news attention to gun violence.

H4: Public shootings will increase news attention to gun violence.

Newsworthiness of Black Victims

As suggested above, certain populations such as racial minorities, especially Black victims, are often perceived as less newsworthy (Neely, 2015) and receive less attention from the news media during times of tragedy (Gruenewald et al., 2009). In a content analysis of news media representations of crime,

Dixon and Linz (2000) found that Black victims were significantly underrepresented and were less likely to be portrayed as victims. Several interrelated cultural dynamics contribute to the news media's inattention to Black victims, rendering Black death less newsworthy and resulting in reduced news coverage, namely the perception of Black death as expected and unsurprising (Sexton, 2008; Wilderson, 2017), alongside the pervasive stereotype that Black people are perpetuators, not victims, of crime (Wilson, Hugenberg, & Rule, 2017).

This biased association between Blackness and criminality bares a cyclical effect as it affects journalistic decisions, which in turn bolsters further public disinterest in Black life and, by extension, Black deaths (Smiley & Fakunle, 2016). Coverage of natural disasters such as Hurricane Katrina, which predominantly impacted Black communities, differed from disasters with majority White victims: Not only did Black victims receive less coverage, but the coverage they did receive framed survivors as racialized "refugees" in their own country and criminalized them as "looters" rather than survivors of crisis (Sommers, Apfelbaum, Dukes, Toosi, & Wang, 2006). Stereotypes about Black criminality likely affect U.S. news media's attention toward Black victims of mass shootings. Given the influence of systemic racism and anti-Blackness on newsroom decisions and crime reporting, we expected that a higher number of Black casualties would result in less coverage of gun violence, whereas non-White shooters would generate more coverage. We proposed two additional hypotheses:

H5: A higher number of Black victims will reduce news attention to gun violence.

H6: A White shooter will reduce news attention to gun violence.

Partisan News Media and Evaluations of Newsworthiness

Events that draw less news media attention are those considered less newsworthy (Maier, 2019). This does not mean that the event itself is not important; in fact, news media attention may reveal biases regarding which events are deemed worthy of coverage. Literature has established that both news values and political values influence partisan news coverage (Haselmayer, Wagner, & Meyer, 2017). Although we expected mass shooting features to correspond with news attention patterns, we also expected that patterns would differ in fundamental ways across the media spectrum given that news organizations' principles—particularly their partisan leaning (Groeling, 2013)—influence what those newsrooms consider newsworthy (Shoemaker & Reese, 2013).

Contemporary news media are characterized by a multitude of channels, a transition of news outlets to the online arena, and a proliferation of partisan news organizations (Shah et al., 2017). Although this could reflect an increase in the variety of stories available, news audience fragmentation has paralleled, with more niche audiences seeking news that portrays a certain ideological slant (Stroud, 2011). The system's fragmentation is meaningful because editorial choices of news media make certain interpretations salient over others, ultimately highlighting certain details of an event or emphasizing certain news stories. For example, when studying public opinion of the swine flu, Baum (2011) found that the consumption of partisan-aligned news media coverage of the swine flu significantly altered citizen's perspectives about this public health issue. Specifically, Republicans who relied mainly on Fox News, relative to alternative sources, were less attentive to

news concerning the swine flu and more skeptical of its press coverage. Editorial choices reveal the priorities of news providers and their efforts to shape the distribution of information, influencing the perceptions and behaviors of the public (Jenkins & Carpentier, 2013). Audiences of different outlets may therefore be prompted to focus on different aspects of the story.

Of particular interest is the distinction between "red" and "blue" news media: outlets that endorse conservative or liberal ideologies (Iyengar & Hahn, 2009, p. 19). Partisan news media differ in their coverage of political events such as elections (Baum & Groeling, 2008). Partisan slant informs editorial decision making, seeking to shape viewers' perceptions of important news events. These differences extend to the long-term coverage of salient political issues such as abortion (Levendusky & Malhotra, 2016). Operating as standard bearers, partisan news outlets advance arguments supporting certain sides of contentious policy issues. Political coverage about gun control and gun rights, as a long-standing political issue with constitutional, social, and cultural history, typifies this discursive tension. Conservative outlets are expected to champion gun rights and the Second Amendment, emphasizing the need for access to firearms for self-defense or hunting, whereas progressive outlets rally around calls for gun control and stricter background checks as a mechanism to decrease gun violence in the United States (McGinty, Webster, Jarlenski, & Barry, 2014; Schnell, 2001).

News outlets' agendas shape how factors like the racial aspects of mass shootings drive the coverage of these events. For instance, we expected that conservative news media would be less attentive to Black victims but more attentive to non-White shooters (Smiley & Fakunle, 2016). Likewise, we expected conservative sources to advocate for gun rights when the profile of the crime fits the rhetoric of preparedness for unexpected danger, whereas progressive outlets should be less likely to allow the narrative of "random violence" to dictate coverage (e.g., Brownstein, 1991; Gilpin, 2019). It is less clear what factors trigger attention to gun rights on moderate outlets. It may simply be tied to attention to gun control, serving as the opposing position in an issue dualism frame (Lee, McLeod, & Shah, 2008). It is also possible that coverage of gun rights declines in the wake of mass shootings, especially events with high victim counts, as journalists, even those working for conservative outlets, do not defend the Second Amendment in the immediate wake of these moments to avoid appearing insensitive. Stemming from the literature on partisanship and news worthiness (Haselmayer et al., 2017; Levendusky & Malhotra, 2016; Smiley & Fakunle, 2016), we asked whether features of mass shootings trigger a different focus of coverage across the news political spectrum: Do news outlets react differently in terms of focus on gun violence, gun control, or gun rights? We expected to find differences between conservative and progressive outlets. Specifically, we proposed that:

H7: Nonracial characteristics of mass shootings—number of victims, number of children killed, public shootings, and school shootings—will increase (a) gun control discourse on progressive media and (b) gun rights discourse on conservative media.

H8: Racial characteristics of mass shootings—number of Black victims and White shooter—will decrease (a) gun control discourse on progressive media and (b) gun rights discourse on conservative media.

Method

We integrated two complementary data sets to examine news media's coverage following mass shootings. The first was a coded timeline of mass shooting incidents that occurred in the United States between January 1, 2012, and December 31, 2014. The second was a national news coverage data set comprising daily article counts mentioning shooting-related *n*-grams (i.e., sequences of *n* items, typically words, used in natural language processing and text mining) over the same period drawn from six news outlets.

Mass Shooting Event Data

Our mass shooting data consisted of all incidents from January 1, 2012, to December 31, 2014. Although gun-related homicides occur in the United States daily (Centers for Disease Control and Prevention, 2019), our data focused on the 59 cases in which at least four individuals died, not including the shooter, based on the FBI's classification of "mass murder" (Krouse & Richardson, 2015). These mass shooting data were reconstructed from three databases: (a) the Stanford Mass Shootings in America Project; (b) the Gun Violence Archive, an independent non–advocacy-related data collection and research group; and (c) the *USA Today* Behind the Bloodshed Project (*USA Today*). The Mass Shootings in America Project data are collected based on online news sources. The Gun Violence Archive database combines online news sources, police reports, news outlets, and police blotters. The *USA Today* database is directly based on the Supplementary Homicide Reports from the FBI. Although no individual event data set claims to be exhaustive, these represent three diverse levels of source selection, each with its own form of source validation. They are complementary in that data missing from the Mass Shootings in America Project or Gun Violence Archive are usually available via the *USA Today* database, which draws directly on Supplementary Homicide Reports from the FBI. Differences are partly due to the characterization of some crimes as "gang-related" or "drug-related" that, although meeting the criteria of a mass shooting, are not included in some databases but can be verified through Supplementary Homicide Reports.

Variables from the combined event database included the number of victims, the number of children killed, the number of Black victims, the race of the shooter, the shooting type (public or private), and if it was a school shooting. Many of the event features were manifest across databases (e.g., date and number of deaths/victims), but shooting type and race required additional validation. Five coders trained on a subset of the corpus. Some items were coded by three coders and some by all five. Intercoder reliability was tested for each variable individually. Disagreements were resolved according to the majority or via discussion that followed the initial coding, after which revisions were made to the codebook. Coders then trained on another subset sample with the revised codebook. Intercoder reliability was tested to ensure a satisfactory correlation before coding the rest of the data. Thus, coders went through several rounds of training to identify these variables, which are explained in more detail below.

Number of Victims

This was a raw count that included both fatalities and injuries for each shooting event. Deaths and injuries had to be the direct outcome of the shooting.

Number of Children Killed

Although child casualties were accounted for within the victim count, we included a separate measure of the number of fatalities under the age of 18. These data were identifiable in the combined database from the age of each victim.

Number of Black Victims

The race of every victim of each mass shooting was not always available in the aforementioned three data sets. When the race of a victim was not explicitly recorded, five coders independently searched additional stories or police reports via online news outlets to review information regarding the victim or shooter's race. Coders were tasked with attributing race first based on the text (i.e., explicit mentions of the victim's race), then based on any available images of the victim. To ensure consistent interpretation of race among coders, we conducted an intercoder reliability test, which revealed high agreement (Krippendorff's α = .86). The race of every victim of each mass shooting event was coded as a categorical variable with six options: White, African American/Black, Asian (American), Native American, Hispanic/Latinx, or unknown. Of the 400 victims in our data set, 62 were Black (15.5%). The number of Black victims killed in each event was used in the regression models.

Race of Shooter

Three coders were trained to identify the race of the shooter for each event, using the same six categories used to operationalize the race of the victims. Judgments based on skin complexion were used only in combination with explicitly stated information. If there was ambiguity, coders deferred to the unknown category. Our data set included 24 White shooters (40.6%), 24 non-White shooters (40.6%), and 11 for whom the race was unspecified (18.8%). We then collapsed the race of the assailant into a dummy variable for a measure of non-White shooters (Krippendorff's α = .85).

Public Shooting

Based on the Stanford Mass Shootings in America database, public versus private shootings were coded based on whether reports indicated prior familiarity between the shooter and victims such as family relations, coworkers, or shared residence. Not to be confused with physical location of shootings, this measure reflected the familiarity between shooter and victims. Three coders were trained to identify each shooting as a public shooting if the assailant had little or no personal relationship to the victim, or as a private shooting if the assailant had a personal relationship with one or more of the victims (e.g., family member, close friend). These judgments were verified across databases or based on details in police/FBI and news media reports for each event. This measure (Krippendorff's α = .72) was coded as a binary variable, with most victims having no personal relationship with the assailant. Although the definition of this variable was drawn from the *USA Today* database, coders reassessed each event in the database.

School Shooting

Each event was dummy coded to indicate whether the shooting primarily occurred on school premises. This included shootings at both primary and secondary schools. Whereas "public/private" refers to the relationship between the shooter and victims, "school shooting" refers to the physical location of the shooting. Thus, the two variables were not mutually exclusive, meaning that a school shooting could be either public or private. For instance, the shooter could have been a student currently attending the school where the shooting took place, categorizing it as a school shooting and a private shooting. However, if the shooter were a former student, unconnected to the victims, as in the case of Sandy Hook, this would be coded as a school shooting and public shooting.

News Media Data

Our second data set was a count of stories that covered gun violence, gun rights, and gun control from January 1, 2012, through December 31, 2014. Using MediaCloud (https://mediacloud.org/), an open-source platform for studying news media ecosystems, we retrieved article counts from six news outlets intended to represent a spectrum of widely consumed sources within the news media ecology. We defined the partisan slant of outlets according to the report from the Berkman Klein Center for Internet and Society at Harvard University (Faris et al., 2017), which scored news outlets on a −1.0 to +1.0 partisanship scale. These ideology-leaning scores were calculated by examining the sharing patterns of articles among Twitter and Facebook users. We later merged these six sources into three pairs based on their political leaning: (1) progressive news outlets (score of −.70 to −.50), which included *The New York Times* and *The Washington Post*; (2) moderate news outlets (score of −.50 to +.30), which included CNN and the *Chicago Tribune*; and (3) conservative news outlets (+.31 to +.90), which included the *New York Post* and Fox News. We included these outlets after validating the quality of article feeds available on MediaCloud against LexisNexis to ensure that our queries were indeed providing reliable samples. To validate that MediaCloud contained reliable timestamps, we drew a sample from LexisNexis for five random weeks between 2012 and 2014 to verify that they presented identical posting times.

For each of the six news outlets, we conducted eight queries from MediaCloud for specific *n*-grams (see the Appendix for details). We ran frequency counts by day for these *n*-grams to verify that they were frequently recurring terms and then categorized them into three main topics: (1) gun violence, comprising the bigrams *mass shooting* and *gun violence*; (2) gun rights, comprising the unigram and bigrams *Second Amendment*, *gun rights*, and *NRA*; and (3) gun control, comprising the bigrams *gun control*, *gun laws*, and *background check*. Correlations within categories among progressive, moderate, and conservative news media ranged from .75 to .62 for gun violence, .78 to .73 for gun control, and .71 to .60 for gun rights, indicating considerable over-time consistency in use of these terms across the news media ecology from 2012 to 2014. See Table 1 for a summary of articles pulled by query term for each news outlet.

Table 1. Number of Articles by Search Terms and News Outlet.

Topic	Search *n*-gram	*The New York Times*	*The Washington Post*	CNN	*Chicago Tribune*	*New York Post*	Fox News
Gun violence	*mass shooting*	278	420	369	221	115	304
	gun violence	941	947	616	1,003	295	480
Gun control	*gun control*	1,346	1,999	896	862	535	973
	gun laws	514	525	444	298	183	302
	background check	399	569	311	257	170	322
Gun rights	*Second Amendment*	403	551	251	198	119	375
	gun rights	437	602	270	325	91	404
	NRA	641	1,062	529	436	211	480

Variables representing news attention to gun violence, gun control, and gun rights were highly correlated with themselves over time. We therefore used Prais–Winsten estimation, a type of generalized least squares model that adjusts for the degree to which observations at a time point are informed by the previous time point. To use this estimate, the time series of news story counts must be stationary; an augmented Dickey–Fuller test suggested that all dependent variables were stationary. Other time-series modeling techniques, such as taking the residual of the autoregressive integrated moving average data-generating process (which identifies how a datum at time t is informed by a datum at time $t - 1$) from the time series and using ordinary least squares models to assess covariates, yielded substantively similar results. We modeled coverage trends as reflected in each news outlet's use of gun violence, gun control, and gun rights terms against mass shooting characteristics for progressive, moderate, and conservative outlets. We also controlled for the total number of articles per day for each source group to account for the prevalence of articles focusing on gun violence, gun control, and gun rights, while accounting for an outlet's total daily output. We estimated three separate Prais–Winsten regressions, one for each topic across progressive, moderate, and conservative outlets, resulting in nine models.

Results

Results of the time-series models are presented for each discourse by ideological leaning of outlets, addressing potential drivers of attention to gun violence, gun control, and gun rights. Tables 2–4 summarize the performance of the nine models.

Gun Violence

The data provided strong support for Hypothesis 1, with a higher number of victims predicting greater news attention to gun violence across all news: progressive, moderate, and conservative ($\alpha = 0.12$, $\alpha = 0.11$, $\alpha = 0.14$). Hypothesis 2 posited that a higher number of children killed would also increase news attention to violence; however, the coefficient for child casualties was not significant in any of the models. Once controlling for the number of victims, progressive ($\alpha = -1.58$) and moderate ($\alpha = -1.97$) news outlets seemed to devote less attention to gun violence in the wake of public shootings, that is, when the victims were not familiar with the shooter. The coefficient for school shootings was not significant; thus, the data

did not support Hypothesis 3. These results contrast with the expectations of Hypothesis 4, which presumed public shootings would increase coverage of gun violence. See Table 2.

In line with previous studies, Hypothesis 5 posited that a higher number of Black casualties would reduce coverage of gun violence. Our results supported this expected pattern in two of the three models, with decreased coverage for both moderate news outlets (α = −0.30) and conservative outlets (α = −0.36), but not for progressive news outlets. Similarly, Hypothesis 6 proposed that a White shooter would reduce attention to gun violence. Our data did not find support for this relationship. See Table 2.

Table 2. Coverage of Gun Violence by Event Characteristics and Ideological Leaning.

Variable	Progressive	Moderate	Conservative
Total victims	0.118*** (0.036)	0.106** (0.034)	0.142 *** (0.024)
Number of child victims	0.195 (0.121)	0.005 (0.115)	−0.091 (0.080)
Shooter White	−0.506 (0.578)	0.617 (0.549)	−0.483 (0.385)
Number of Black victims	−0.199 (0.156)	−0.297* (0.149)	−0.364*** (0.104)
Public shooting	−1.577* (0.804)	−1.965** (0.764)	−0.811 (0.535)
School-related shooting	0.075 (1.410)	−0.676 (1.338)	−0.497 (0.938)
Constant	2.336*** (0.302)	2.000*** (0.267)	1.087*** (0.109)
N	1,096	1,096	1,096
R^2	.019	.017	.037
Rho pretransformed	.726	.709	.536

Note. *** = $p < 0.001$; ** = $p < 0.01$; * = $p < 0.05$; *sd* values are in parentheses.

Control

In the models predicting focus on gun control, the progressive news media's coverage pattern was similar to the models predicting focus on gun violence, that is, the number of victims drove up coverage of gun control (α = 0.23). Again, public shootings drove down coverage (α = −4.06). We predicted that public shootings would elicit more attention to gun control; rather, among progressive outlets, public shootings reduced attention. Thus, Hypothesis 7a was only partly supported with mixed findings. Among moderate news outlets, the number of victims was not a significant predictor of attention to gun control. In fact, none of our predictors explained shifts in this coverage focus among the moderate outlets. In contrast, for conservative outlets, a high number of victims reduced attention to gun control discourse (α = −0.07), opposite of what was observed in progressive news outlets. See Table 3.

Table 3. Coverage of Gun Control by Event Characteristics and Ideological Leaning.

Variable	Progressive	Moderate	Conservative
Total victims	.225*** (0.061)	0.086 (0.049)	−0.067* (0.030)
Number of child victims	−0.184 (0.205)	0.069 (0.164)	−0.030 (0.103)
Shooter White	0.900 (0.979)	−0.233 (0.785)	0.265 (0.493)
Number of Black victims	−0.046 (0.265)	−0.285 (0.213)	−0.093 (0.133)
Public shooting	−4.057** (1.363)	−0.881 (1.093)	−0.566 (0.686)
School-related shooting	2.171 (2.388)	−0.646 (1.916)	1.521 (1.202)
Constant	4.827*** (0.591)	2.784*** (0.386)	2.291*** (0.258)
n	1,096	1,096	1,096
R^2	.018	.004	.013
Rho pretransformed	.760	.712	.727

Note. *** = $p < 0.001$; ** = $p < 0.01$; * = $p < 0.05$; *sd* values are in parentheses.

Gun Rights

In progressive news outlets, the number of victims increased attention to gun rights (α = 0.12), similar to the pattern found for gun violence and gun control. For moderate news outlets, the loss of children's lives increased coverage focusing on gun rights (α = 0.31). In fact, this was the only significant relationship observed regarding the number of children killed in mass shootings—the increase of gun rights discourse in moderate outlets. For conservative news media, none of our predictors explained attention of coverage to gun rights. Thus, Hypothesis 7b and Hypothesis 8b, which assumed that event features would influence gun rights coverage on conservative media, were not supported. See Table 4.

Table 4. Coverage of Gun Rights by Event Characteristics and Ideological Leaning.

Variable	Progressive	Moderate	Conservative
Total victims	0.120* (0.054)	0.067 (0.043)	−0.022 (0.029)
Number of child victims	−0.268 (0.183)	0.308* (0.146)	0.065 (0.099)
Shooter White	0.175 (0.875)	0.102 (0.700)	−0.269 (0.473)
Number of Black victims	−0.120 (0.237)	−0.212 (0.189)	−0.048 (0.128)
Public shooting	−1.075 (1.218)	−0.511 (0.934)	0.634 (0.659)
School-related shooting	−0.197 (2.134)	−2.148 (1.707)	−1.112 (1.155)
Constant	3.364*** (0.347)	1.801*** (0.223)	1.539*** (0.139)
n	1,096	1,096	1,096
R^2	.006	.012	.002
Rho pretransformed	.651	.580	.548

Note. *** = $p < 0.001$; * = $p < 0.05$; *sd* values are in parentheses.

Discussion

The present study set out to examine how coverage patterns of news events can reveal the underlying values that guide news editorial choices across the partisan communication ecology. Mass

shooting events provided an opportunity to study such coverage, revealing patterns of consistency and variance across the partisan spectrum that could be explained by different event features. The results across the nine models, examining news attention to gun violence, gun control, and gun rights across progressive, moderate, and conservative outlets, demonstrate how factors like the number of victims consistently shape attention to gun violence across the ideological spectrum, but public shootings (i.e., events involving the indiscriminate killing of strangers) and the loss of Black lives (i.e., number of Black people killed) spur differential attention to gun violence and gun control in progressive and conservative outlets. These patterns reveal a great deal about the editorial imperatives that drive coverage on the left and right.

We confirm that the adage about news coverage remains true in the digital age: "If it bleeds, it leads." The number of victims drove coverage on gun violence across progressive, moderate, and conservative outlets. However, this was the only consistent finding across the ideological news spectrum. For seemingly related coverage concerning gun control, the number of victims drove up coverage in progressive news media, whereas in conservative outlets, the number of victims actually drove down coverage of gun control, suggesting a clear difference in the ideological position of these news producers. It is particularly notable that the racially inflected findings concerning attention to gun violence indicate that the death of Black victims generates less attention on moderate and conservative outlets. Revealing the comparative indifference to the loss of Black lives provides deeper insights into the values motivating coverage.

Variance in coverage patterns is further highlighted by the finding that public shootings drove down coverage of gun violence in both progressive and moderate outlets. This finding is contrary to expectations, but consistent with left-wing attitudes that "random violence" is overstated relative to the political right's perception (Gilpin, 2019). This is supported by a recent study demonstrating that coverage of gun control following mass shootings tends to lead to a spike in firearm acquisition out of concern that gun regulation will be tightened (Porfiri, Sattanapalle, Nakayama, Macinko, & Sipahi, 2019).

Likewise, conservative and moderate outlets direct less coverage to gun violence in the wake of events involving a high number of Black deaths. The inattention to the loss of Black lives suggests a set of racial imperatives operating on the right side of the news spectrum. Both findings, along with decreasing attention to gun control in conservative outlets following mass shootings with a high victim count, suggest that coverage on the left and right are attentive to different news values, even when covering the same aspects of mass shootings. Interestingly, the relationship between the number of victims and a focus on gun rights held only for progressive news outlets. This pattern diverges from their parallel attention to gun control as part of a policy debate. Furthermore, in contrast to our expectations concerning child victims and newsworthiness, the models suggested no temporal relationship between the loss of children's lives and news attention to gun violence or gun control. The death of children due to mass shootings seemed to increase the gun rights focus only for moderate news media.

These findings highlight how mass shooting features—such as the number of deaths, the number of Black people killed, or whether the shooting was public—can determine the media attention they receive. Aspects of mass shootings that news organizations consider newsworthy vary by their partisanship, suggesting that internally shared news values help determine news content (Shoemaker & Reese, 2013). Such findings elaborate on our understanding of mass shootings' newsworthiness and may advance other

theories used to study mass shootings, including framing and agenda setting (e.g., Holody & Daniel, 2017). These findings also resonate with previous research on partisan news coverage, which has demonstrated a variance in the attention to and framing of events (e.g., McCluskey, 2016; Wagner & Gruszczynski, 2016), and has highlighted the consequences of ideologically driven coverage, as it is associated with fragmentation of public opinion and support or opposition for policy (Merolla, Ramakrishnan, & Haynes, 2013). Finally, the results indicate that none of our variables were significant in predicting gun rights discourse on conservative news media. One possible explanation for this is that gun rights coverage had been somewhat consistent in conservative news media during that time, regardless of whether a mass shooting occurred. Another possibility is that coverage is influenced by alternative factors unaccounted for in this study, or external factors, such as efforts to pass legislation tightening restrictions on gun sales and gun ownership (see Astor & Russell, 2018). Conservative news media may be especially prompted to defend gun rights when faced with legislative efforts to restrict firearms. Social media posts may also trigger gun rights coverage. For instance, Twitter discourses emphasizing the need for gun control may drive fear of stricter regulations.

Although our study reveals factors driving attention to gun violence, gun control, and gun rights following mass shootings in the United States, our data cannot speak to intermedia dynamics. Future research should attempt to connect news media and social media discourse to highlight differences, similarities, and relationships between the two. It would be of interest to examine whether social media discourse drives news coverage or vice versa, while accounting for event characteristics that are exogenous to both discourse streams. This would allow scholars to reconsider cross-media agenda setting.

Additional limitations should be noted. We examined coverage of specific topics—gun violence, gun control, and gun rights—by the number of articles. However, articles containing certain *n*-grams do not necessarily reflect the nature of the discourse. Articles discussing gun control on conservative outlets or gun rights on progressive outlets may be critical of that perspective rather than supportive. Future studies could research the full article's content to assess the valence of the coverage by studying sentiment and other content features. It may be that specific event features trigger discourse in some sources focusing on gun rights in support of campus carry, concealed carry, or open carry laws, and others may criticize the notion of gun rights in support of bans on assault weapons, bump stocks, or gun ownership for domestic violence offenders. A more in-depth content analysis attending to specific proposals within the gun control–gun rights discourse is needed. Last, we examined only three discourses that mass shootings generate, but these are not exhaustive. Coverage can focus on alternative issues such as mental illness or weapon type, which may have different drivers. For instance, the race of the shooter was not a significant predictor in any of our models, but perhaps it would be a significant predictor for mentions of mental illness, as White shooters are more likely to be associated with mental illness compared with shooters from ethnic minorities. Not only are White shooters' actions more likely to be explained by mental illness compared with the actions of Black shooters, which are attributed to their race, but the rhetoric of the coverage itself presents White shooters with more sympathetic characteristics as opposed to Black shooters (Duxbury, Frizzell, & Lindsay, 2018).

Despite these limitations, our research was able to show some commonalities and many systematic differences in coverage of mass shootings across the partisan news spectrum based on event characteristics. Given the increasing frequency of mass shootings in recent years, we hope that this analysis will contribute to future research regarding these deadly events and their relationship with the news coverage they

generate concerning gun control and gun rights. Examining whether the relationships observed here are sustained as the events grew in commonality and magnitude demands research attention. The recent study by Silva and Capellan (2019) took this important step and examined coverage of mass shootings over five decades, although their study examined articles published only in *The New York Times*. As our study and others have found, the ideological leaning of a news outlet can help explain the variance in coverage of an event. Future studies would benefit from replicating this process by gathering data from multiple news outlets for longer periods, thus addressing additional variations in coverage across the ideological news spectrum. Our findings are a testimony to the need and opportunity to further explore journalistic practices and reexamine news values to gain a deeper understanding of the manner in which sociopolitical values and aspects of race continue to influence editorial choices within the news industry.

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Appendix

Defining the Search Terms and Categories

We constructed a purposive sample via MediaCloud, an open-source platform specifically designed for studying media ecosystems. We pulled articles from five news outlets: ABC, Fox News, *The New York Times*, *The Washington Post*, and CNN, and selected five time frames, each consisting of a three-day span. Three of the time frames followed a mass shooting (July 20–22, 2012, following the Aurora shooting; September 16–18, 2013, following the Washington Navy Yard shooting; and August 5–7, 2012, following the Oak Creek Sikh Temple shooting). The remaining two were relatively distant from mass shootings (December 10–12, 2012, and November 1–3, 2013) to identify terminology usage during nonevents. This resulted in 50 queries (5 outlets * 5 time frames * 2 key terms). We scraped entire articles from this collective using the Python libraries <Urllib> (obtains the original html content of the URL) and <BeautifulSoup> (converts URL html files into plain text). After filtering duplicates, we ran a word frequency and *n*-gram analysis (n = 2 to 3) to identify the highest recurring *n*-grams, resulting in 18 search terms: "assault weapon*," "ar-15," "background check," "gun control," "gun laws," "gun legislation," "gun policy," "gun rights," "gun regulation," "gun violence," "mass shooting," "mental health," "mental illness," "national rifle association," "NRA," "pray for," "second amendment," "semiautomatic," "thoughts and prayers." These terms were then grouped into meaningful categories. We conducted a factor analysis to validate that grouped terms derived from a single dimension, and only kept terms in a category if their correlation was .85 or higher. This process resulted in six main categories: (1) gun violence, which included "mass shooting" and "gun violence"; (2) gun rights, which included "second amendment," "gun rights," and "national rifle association," or the abbreviation "NRA"; (3) gun control, which included "gun control," "gun regulation," "gun laws," and "background check"; (4) mental health, which included "mental health" or "mental illness"; (5) weapon type, which included "assault weapon," "ar-15," and "semiautomatic"; and (6) prayers, which included "thoughts and prayers" and "pray for." The present study focuses on the first three indexes.